
ORIGINALITY AND AUTHORSHIP IN AI GENERATED WORKS: A COMPARATIVE STUDY OF HUMAN CREATIVE CONTROL IN COPYRIGHT LAW

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CHAPTER 1

Introduction

Artificial Intelligence (AI) as conceptualised by A.M. Turing can be defined as computational systems, which can perform tasks, which are related to human intelligence.¹ The recent development of generative AI systems, including large language models that are capable of producing essays, poems, and legal drafts, as well as image-generation systems that can create original works by textual prompts, has considerably transformed the creative production by making the production of expressive content possible with minimal human input.² As opposed to the traditional tools which only support human creativity, these systems can dictate aspects of expression like structure, style and composition³ and, therefore, obscure the line between tool and creator.⁴ This shift has created a focused doctrinal challenge within copyright law which has traditionally relied on the human intellectual authorship. Specifically, it requires a close consideration of whether these AI-created works are able to meet the originality requirement, how its authorship is to be assigned when there is an indirect or minimal human contribution, and how current legal frameworks could maintain its human-based principles in the context where creative mediated by technology. The key question of this research is not how AI is used in the creative process, but how far even meaningful human creative control

¹ Alan Mathison Turing, 'Computing Machinery and Intelligence' (1950) 59 Mind 433, 433–435. [mind_lix_236_433.pdf](#) accessed on 3 January 2026.

² World Intellectual Property Organization, WIPO Technology Trends 2019: Artificial Intelligence (WIPO 2019), 15–18 https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1055.pdf accessed on 3 January 2026.

³ Hafiz Gaffar and Saleh Albarashdi, 'Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) 15(1) Asian Journal of International Law 2, page no. 7–8. <https://www.cambridge.org/core/journals/asian-journal-of-international-law/article/copyright-protection-for-ai-generated-works-exploring-originality-and-ownership-in-a-digital-landscape/12B8B8D836AC9DDFFF4082F7859603E3> accessed on 3 January 2026.

⁴ United States Copyright Office, Copyright and Artificial Intelligence, Part 2: Copyrightability (US Copyright Office 2025) 7–10. <https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf> accessed on 3 January 2026.

can be traced in the end product.

Despite the growing ability of AI systems to autonomously produce creative content, copyright laws in most jurisdictions are firmly rooted in requirement of human centric approach.⁵ The traditional copyright frameworks were instituted to guarantee protection of works based on human intellect and creative effort.

Originality, as minimum and necessary elements of copyright protection has been judicially interpreted in different jurisdictions as that which demands the utilization of human skill, judgment, and creativity.⁶ However, AI-made works dispute this assumption by bringing a form of algorithm-controlled creativity, where the algorithms, training datasets, and AI-driven decision-making are involved. In such cases, human involvement is restricted to system design or prompts, whereas the expression is to be ascertained by the system itself. This brings about an important legal issue: is it possible to continue to hold originality in a work where human creativity is indirect, minimal, or otherwise not easily discernible at the level of expression?

The issue of originality is seemingly attached to the problem of authorship. The copyright protection requires the identification of the author to whom the rights can be attributed. Yet, AI-generated works make this requirement more complex, as several participants, including developers, users, and system operators are included in various phases of the creative process. Jurisdictions have tackled this challenge in different ways. Courts in the United States⁷ and the European Union⁸ have upheld the strict human authorship requirement and have denied protection to works which does not involve any meaningful human creative effort. Conversely, India⁹ acknowledges computer generated works and assign authorship to the person who makes the required arrangements to create them. Despite the fact that this statutory attribution offers some legal certainty, the question arises as to whether such recognition is representative

⁵United States Copyright Office, 'Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence' (88 Fed Reg 16190, 16 March 2023) 16192
<https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence> accessed on 3 January 2026,

⁶ Eastern Book Company v DB Modak (2008) 1 SCC 1 [36]–[38].

⁷ Thaler v Perlmutter 687 F Supp 3d 140 (D.D.C. 2023).

⁸ Infopaq International A/S v Danske Dagblades Forening EU:C:2009:465, [37].

⁹ Copyright Act 1957 (India), s 2(d)(vi).

of actual creative authorship or simply acts as a legal fiction.¹⁰ Courts in China¹¹ have acknowledged copyright protection in situations where it is possible to prove human intellectual effort even in AI generated works. These divergent approaches within countries suggest that there is no consistent doctrine and lead to ambiguity in transnational creative markets.¹²

Although the academic literature on AI and copyright has been rapidly expanding, a lot of the research has centered on policy implications, distribution of ownership, and economic impact.¹³ The relatively little attention has been given to a continual theoretical analysis of the functioning of the requirement of originality within the technologically mediated creativity. Specifically, the idea of human creative control has not been theorised adequately. The criteria such as independent creation, minimal creativity, and intellectual creation of the author are often cited, but there is no conceptual clarity about the application to AI-generated works.

This dissertation seeks to fill this gap by examining originality and authorship using the prism of human creative control. It argues that whether AI as tools has been applied to the creative process should not be the determining factor, but whether the end product represents a significant contribution of human intellect. The study examines the legal provisions and approach of courts in the United States, the European Union, India, and China to determine whether the current copyright laws can be effectively applied to AI-generated work without leaving its human centric requirement.

It examines the principles of originality and authorship through case law, legislation and academic literature, and compares the approaches in the United States, European Union, China and India. These have been chosen as they demonstrate different approaches to AI-generated works, from strict human authorship to more pragmatic approaches. Case studies like Zarya of

¹⁰ UK Intellectual Property Office, Artificial Intelligence and Intellectual Property: Copyright and Patents (UK Government, 29 October 2021) 12-13 <https://www.gov.uk/government/consultations/artificial-intelligence-and-ip-copyright-and-patents/artificial-intelligence-and-intellectual-property-copyright-and-patents> accessed on 3 January 2026.

¹¹ Li v Liu (Beijing Internet Court, Civil Judgment No 11279, 27 November 2023).

¹² World Intellectual Property Organization, WIPO Technology Trends 2019: Artificial Intelligence (WIPO 2019) 120-125 <https://www.wipo.int/publications/en/details.jsp?id=4386> accessed on 3 January 2026.

¹³ Ayushee Sinha, 'AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks' (Chanakya National Law University 2025) 14-15 <https://www.cnlu.ac.in/wp-content/uploads/2026/02/AI-Generated-Works-in-IP-laws-Contemporary-Authorship-and-Ownership-Challenges-Amidst-Evolving-Legal-Frameworks-by-Ayushee-Sinha.pdf> accessed on 3 January 2026.

the Dawn¹⁴ and Suryast¹⁵ are not only described, but to test how these principles apply in practice, and to justify the human creative control model proposed in this paper.

The following chapters discuss this question in a systematic way. Chapter 2 explores the essence of AI in the creative field and differentiates between AI-assisted and AI-created works. Chapter 3 follows the development of the originality requirement and examines how it applies to AI generated outputs. The subsequent chapters analyse the doctrine of authorship and offer a comparative evaluation of certain jurisdictions. The dissertation concludes with a principled framework based on the need of meaningful human creative control.

CHAPTER 2

ARTIFICIAL INTELLIGENCE AND ITS INTERACTION WITH COPYRIGHT LAW

2.1 UNDERSTANDING ARTIFICIAL INTELLIGENCE AND ITS RELEVANCE IN CREATIVE WORKS

The concept of artificial intelligence was first coined by John McCarthy in 1956 in the Dartmouth Summer Research Project on Artificial Intelligence.¹⁶ Despite the decades of technological advancement, artificial intelligence was not defined in the copyright law because its main purpose is not to regulate technology, it is to protect the expression of creativity.¹⁷ Nonetheless, the lack of such definition become persistent when it comes to identifying whether the outputs created with the help of AI can be considered under the umbrella of the copyright protection. The problem of AI-related controversy should hence be discussed in light of existing legal frameworks, which were created under the assumption of human authorship.

In functional sense, artificial intelligence can be described as systems that are capable of performing functions that are traditionally carried out by human intellect, such as learning,

¹⁴ United States Copyright Office, Re: Zarya of the Dawn (Registration No VAu001480196) (21 February 2023) 1-3 <https://www.copyright.gov/docs/zarya-of-the-dawn.pdf> accessed on 4 January 2026.

¹⁵ Mohd Nasir Alam and Vatsal Chaudhary, "Copyright Law in the Age of AI: Analyzing the AI-Generated Works and Copyright Challenges in India", (2025) 6(6) International Journal of Research Publication and Reviews 5587–5591, available at: <https://ijrpr.com/uploads/V6ISSUE6/IJRPR48281.pdf> accessed on 15 January 2026.

¹⁶ John McCarthy, 'Programs with Common Sense' (1959) 75 <http://jmc.stanford.edu/articles/mcc59.html> accessed on 13 January 2026.

¹⁷ Lionel Bently, Brad Sherman and others, Intellectual Property Law (5th edn, Oxford University Press 2018) 3–5.

reasoning, pattern recognition, natural language processing, and decision-making.¹⁸ The modern artificial intelligence systems, especially machine learning and deep neural networks work by processing large data and correlating statistical trends, and producing outputs conditioned on probabilistic models instead of being defined by a fixed set of rules.¹⁹

The difference between the conventional technological devices and the new generative AI systems has significant legal consequences. Traditional tools, e.g. cameras or word-processing software, are directly controlled by humans and only support implementing human creative decisions. Generative AI systems, conversely, generate outputs by relying on statistical correlations between training data, and do not necessarily have human control over the final expressive elements. This is the core difference when it comes to determining whether or not such outputs can be said to be a result of human creativity under the context of copyright law.²⁰

The Copyright Act, 1957 in India does not specify the concept of artificial intelligence, because it is concerned with the protection of the creative work instead of regulating the technology. But Section 2(d)(vi) acknowledges the existence of computer generated works and the authorship is assigned to the individual who orders the work to be produced.²¹ This section was introduced before the advent of modern generative AI and presupposes a system where human agency is still the center of the creative process. It is unclear whether this reasoning is capable of accommodating AI system that produces outputs with little human involvement.

2.2 AI INVOLVEMENT IN CREATIVE WORK.

In order to comprehend the legal aspects of AI use in the creative process, one must distinguish various types of AI involvement in creative process. The legal implications depend on the extent of human involvement in the production of the work. The works that AI-assisted and AI-generated can be used as a useful distinction.²²

¹⁸ Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach* (4th edn, Pearson 2021) 1-4 <https://www.scirp.org/reference/referencespapers?referenceid=3352205> accessed 15 January 2026.

¹⁹ World Intellectual Property Organization, *WIPO Technology Trends 2019: Artificial Intelligence* (WIPO 2019) Para 21-25 https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1055.pdf accessed 30 April 2026.

²⁰ United States Copyright Office, 'Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence' (88 Fed Reg 16190, 16 March 2023) 16192-93 <https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence> accessed on 3 January 2026,

²¹ Copyright Act 1957 (India), s 2(d)(vi).

²² European Union Intellectual Property Office, *The Development of Generative Artificial Intelligence from a Copyright Perspective* (EUIPO 2025) <https://www.euipo.europa.eu/en/publications/genai-from-a-copyright-perspective-2025> accessed 6 February 2026.

(A) AI-Assisted Work

AI-assisted works entail scenarios where a human author retains overriding control of the production of the creative work, with AI simply acting as an aid in the creative process.²³ In these instances, the human author still undertakes the crucial expressive decisions and AI is used to improve efficiency, refinement, or style, example an artist can hire AI-related software to make a visual composition better, but will still be in control of the final work, or that a writer can use AI technology to create drafts and then improve them with their own creativity.

Under these circumstances, AI works in a similar way that the previous technological instruments that complement the creativity of humans and not substitute it.²⁴ In this light, the human input in the form of the intellectual is still the core of the originality of the work.

In the *Eastern Book Company v D.B. Modak* case, the Supreme Court of India dismissed the sweat of the brow doctrine and stated that originality must entail the exercise of skill and judgment in the form of the minimal level of creativity.²⁵ Using this argument in AI-assisted works, a copyright can survive in instances where the human author has exerted adequate control over creative input to the final product.

Similarly, the jurisprudence of the European Union states that a work must be the intellectual creation of the author.²⁶ The requirement of originality may be fulfilled even where expressive elements are defined by the human creative decisions.

(B) AI-Generated Works

The AI-generated works are those that are created with minimal or no direct human engagement in determining the ultimate expressive form,²⁷ concept which is a broadly acknowledged in the contemporary literature on AI and copyright.

The role of human participation in such systems is normally restricted to acts like:

²³ European Union Intellectual Property Office, *Generative Artificial Intelligence and Copyright* (EUIPO 2025) (n 22) 10-11.

²⁴ Lionel Bently, *Intellectual Property Law* (5th edn, Oxford University Press 2018) (n 17) 97-99.

²⁵ *Eastern Book Company v D.B. Modak* (2008) 1 SCC 1, [36-38].

²⁶ *Infopaq International A/S v Danske Dagblades Forening* EU:C:2009:465.

²⁷ United States Copyright Office, *Copyright and Artificial Intelligence, Part 2: Copyrightability* (US Copyright Office 2025) (n 4) 7-10.

- Designing the AI system;
- Providing general prompts;
- Selecting training data;
- Activating the model.

In these conditions, the expressive features of the final output are not directly determined by the discernible human decisions, which raises serious doctrinal issues.

The United States courts and the Copyright Office have insisted on the necessity of human intellectual contribution to authorship.²⁸ In *Thaler v Perlmutter*, copyright was not granted to a work created without any human authorship.²⁹ In the same manner, the European Union states that originality must be an intellectual work of the creator of the original work.³⁰ In cases where expression is dictated independently by the algorithmic processes, these works do not have the right to be safeguarded by copyright.

In some instances, Chinese courts have become more lenient by recognising copyright whenever there is significant human intellectual contribution to the work, in the form of prompt design or selection,³¹ but this approach remains specific to context and does not have any doctrinal coherence.

This difference is not just descriptive, it is the focus of the authorship discussion, as most of the modern controversy occurs around hybrid cases whereby human and machine inputs are intertwined. It is precisely in these borderline cases that a defined test in accordance to human creative control is needed.

2.3 HUMAN CREATIVE CONTROL AS THE DETERMINING VARIABLE

The difference between AI-assisted and AI-generated works is eventually related to the extent of human creative control over the final output. These forms of control can be in the form of

²⁸ U.S. Copyright Office (n 4) 7–12.

²⁹ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023).

³⁰ *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37]–[38]

³¹ *Li v Liu* (Beijing Internet Court, Civil Judgment No 11279, 27 November 2023).

iterative prompting, selective curation of outputs or heavy editorial interventions.³² When the human participation contributes to the expressive nature of the work, the relationship between human intellect and expression is maintained.

However, when human intervention is restricted to only starting or activating a self-determined system, without shaping expressive results, the originality requirement is hard to fulfil.³³ Therefore, it is not a dichotomy of human and machine creativity, but a spectrum of human involvement. Such spectrum based understanding is consistent with approach of scholars, which emphasis that important issue is not whether AI was used in creative process but whether there was sufficient human contribution on influence the expressive outcome. The absence of clear threshold for such contribution reveals doctrinal gap across jurisdiction leading to inconsistent judicial outcome.

This analysis serves as a basis to consider the way the doctrine of originality can be understood and implemented in relation to AI-generated works.

CHAPTER 3

ORIGINALITY AS THE THRESHOLD OF COPYRIGHT PROTECTION IN THE AGE OF AI

3.1 ORIGINALITY AS THE GATEKEEPING DOCTRINE

Originality acts as a gateway to the copyright protection and it is a determining factor on whether a work can be accorded protection. In contrast to patent law, which entails novelty and innovativeness, copyright law focuses on whether a work is an original creation of an author and an expression of intellectual work. The doctrine fulfils a filtering role that separates protected expressions and ideas, facts or mechanically generated outputs.³⁴

Traditionally, originality has been perceived to involve a connection between the work and human intellectual activity. This anthropocentric disposition signifies the normative role of the

³² European Union Intellectual Property Office, Generative Artificial Intelligence and Copyright (EUIPO 2025) (n 22) 34- 37.

³³ Daniel J Gervais, 'The Machine as Author' (2020) 105(5) Iowa Law Review 2053 <https://ilr.law.uiowa.edu/sites/ilr.law.uiowa.edu/files/2022-10/The%20Machine%20as%20Author%20.pdf> accessed 8 February 2026., 2061–2062.

³⁴ Hafiz Gaffar Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024), (n 3) 7-10.

copyright law which is to encourage and compensate creative expression as a result of the human agency.³⁵ However, the rise of AI-generated works disputes this presumption by introducing new forms of expression in which the contribution of human intellect is diluted or hard to trace. Therefore, the key dogmatic question is whether originality can still persist in the work where the human creative control is indirect, minimal, or replaced by algorithmic processes.

3.2 HISTORY OF THE DOCTRINE OF ORIGINALITY

To examine the applicability of originality to AI-generated works, we need to look at the development in the doctrine in various jurisdictions.

(A) Early Common Law: Skill, Labour, and Judgment.

In early common law jurisprudence, Originality was closely related to labour and effort of human. In *University of London Press Ltd v University Tutorial Press Ltd*, the court determined that examination papers were original since they entailed skill and judgment of individual analysing previous paper and put its own judgement for such compilation.³⁶ It was not concerned with novelty but rather the intellectual work in the creation of the work.

On the same note, in *Hollinrake v Truswell*, it was acknowledged that copyright safeguards the expression of intellectual labour, despite the minimal artistic merit.³⁷ This approach was later referred to as the sweat of the brow doctrine.³⁸

Nevertheless, this labour-based standard was condemned because it provided protection to works that lacked a sense of originality therefore providing excessive copyright protection.

(B) United States: Autonomous Creation and Low Creativity.

The United States developed the doctrine by providing a creativity threshold.³⁹ In *Feist Publications, Inc v Rural Telephone Service Co*⁴⁰, the Apex Court of U.S.A discarded the sweat

³⁵ Gervais, 'The Machine as Author' (2020) (n 33) 2055–58.

³⁶ *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601.

³⁷ *Hollinrake v Truswell* (1894) 3 Ch 420.

³⁸ U.S. Copyright Office Copyright and Artificial Intelligence, Part 2: Copyrightability (n 4) 7-10.

³⁹ Ayushee Sinha 'AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks' (n 13) 8.

⁴⁰ *Feist Publications, Inc v Rural Telephone Service Co* 499 US 340 (1991)

of the *brow* doctrine and determined that originality would require:

- Independent creation; and
- Low level of creativity.⁴¹

The Court explained that just effort or diligent gathering of data is not enough. A telephone directory that was done in alphabetical order was not creative, as there was no creative choice or organization.⁴²

Previously, the court in *Burrow-Giles Lithographic Co v Sarony*, acknowledged that a photograph would be considered original if it embodies the intellectual conception of the photographer, which was manifested in decisions concerning composition, lighting and arrangement of subject matter.⁴³

In *Thaler v Perlmutter* the U.S. District Court reiterated that the protection of copyright entails work created by human authorship.⁴⁴ A work that is completely created by an AI mechanism without human creativity was not granted protection. The ruling is especially important within the AI context, as it supports the idea that originality has to be credited to the human intellectual work.

(C) European Union: Author's Own Intellectual Creation.

European Union defines originality as an ‘intellectual creation of the author’ and represents a more personality-based approach.

In *Infopaq International A/S v Danske Dagblades Forening* (Case C-5/08), the Court of Justice of the European Union (CJEU) held that originality exists when the work is the outcome of the intellectual effort of the author.⁴⁵ This standard has since been harmonised among states that are members of the EU.

In *Eva-Maria Painer v Standard Verlags GmbH* (Case C-145/10), the Court ruled that even the

⁴¹ *Feist Publications, Inc v Rural Telephone Service Co* 499 US 340 (1991) 345–349.

⁴² *Feist Publications, Inc v Rural Telephone Service Co* 499 US 340 (1991) 362.

⁴³ *Burrow-Giles Lithographic Co v Sarony* 111 US 53 (1884) 60.

⁴⁴ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023).

⁴⁵ *Infopaq International A/S v Danske Dagblades Forening* EU:C:2009:465, [37].

portrait photographs may be considered original provided that they mirrored the free and creative decisions of the author.⁴⁶ Therefore, originality is not lost by the use of technical tools as long as creative freedom is expressed by individual.

In addition, in *Cofemel v G-Star Raw* (Case C-683/17), the CJEU made it clear that originality is based on creative decisions and not aesthetic value.⁴⁷ Likewise, in *Football Dataco Ltd v Yahoo!. UK Ltd* (Case C-604/10), the court determined that originality does not exist in the instances where expression is determined solely due to technical necessities, and not due to free expression of person.⁴⁸

This jurisprudence emphasizes the fact that originality needs the creative independence, something that becomes problematic when it comes to the works of AI-driven technologies, where the expression can be algorithmically determined.

(D) Indian Position: Labour to Creativity.

Indian copyright legislation originally adhered to the doctrine of sweat of the brow, but changed to standard of creativity in *Eastern Book Company v D.B. Modak* (2008) where the Apex Court, rejected labour-based approach and decided that originality must be subject to use of skill and judgment, requiring some minimum degree of creativity, mechanical or trivial effort is not enough.⁴⁹

Moreover, the Copyright Act, 1957 under Section 2(d)(vi) acknowledges the existence of works that are computer-generated and assigns the authorship to the individual who initiates the creation of the work.⁵⁰ Nevertheless, this section was implemented before the emergence of modern generative AI and presupposes a system where human agency remains at the heart of it.⁵¹

The question today is whether this statutory framework is capable of accommodating the AI systems which work with minimal human intervention.

⁴⁶ *Eva-Maria Painer v Standard Verlags GmbH* EU:C:2011:798, [89]–[92].

⁴⁷ *Cofemel – Sociedade de Vestuário SA v G-Star Raw CV* EU:C:2019:721, [29]–[30].

⁴⁸ *Football Dataco Ltd v Yahoo! UK Ltd* EU:C:2012:115, [38].

⁴⁹ *Eastern Book Company v D.B. Modak* (2008) 1 SCC 1, [36–38].

⁵⁰ Copyright Act 1957 (India), s 2(d)(vi).

⁵¹ Mohd Nasir Alam Copyright Law in the Age of AI: Analyzing the AI-Generated Works and Copyright Challenges in India (n 15) 5587–5591

3.3 DOCTRINAL TENSION: ORIGINALITY IN AI-GENERATED WORKS

Across jurisdiction, originality is ultimately based on recognizable human intellectual input. Three aspects in which AI-generated works break this premise include:

1. Independent Creation vs Algorithmic Generation.

Although AI outputs do not necessarily replicate the existing works, they are produced based on algorithmic recombination of training data.⁵² This puts the question of whether these outputs could be attributed to the human intellect as demanded in Feist case.

2. Creativity as a Human Intellectual Expression.

In American jurisprudence, creativity should be result of human authorship. The demand of creativity might not be met where the expressive elements are produced by algorithmic mechanisms as opposed to human selection.⁵³ This limitation is strengthened by the reasoning in *Thaler v Perlmutter*⁵⁴ which excludes works which do not involve human creativity.

3. Creative Freedom and Control.

The EU law stresses on free and creative decision making of human. In the case of outputs being dictated by technical or algorithmic constraints, such as emphasized in *Football Dataco* case, the originality requirement is not met.⁵⁵

The creative freedom of expression is a question in AI-generated works due to the absence of direct human involvement over expression.

3.4 TOWARDS A STRUCTURED APPROACH: HUMAN CREATIVE CONTROL TEST.

The paper doesn't propose a framework confined to a single jurisdiction, but a cross-jurisdictional approach derived from principles in the U.S, EU and Indian copyright law. While

⁵²Hafiz Gaffar Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) (n 3) 9.

⁵³ Nikhil Mishra and Digvijay Singh, 'AI-Generated Work and its Implications on Copyright Law in India' (2025) 30(1) Journal of Intellectual Property Rights 35.

⁵⁴ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023).

⁵⁵ *Cofemel – Sociedade de Vestuário SA v G-Star Raw CV EU:C:2019:721*, [29]–[30], *Football Dataco Ltd v Yahoo! UK Ltd EU:C:2012:115*, [38].

the standards for originality differ in formulation, each system links protection to human intellectual contribution.⁵⁶ The objective is therefore not jurisdiction-specific reform, but a structured test for assessing originality in AI-generated works.

The difficulty in applying traditional originality doctrine to AI-generated works lies less in the absence of legal principles than in the absence of a consistent method for evaluating human contribution in technologically mediated creation. Existing doctrine recognises that originality depends on human intellectual effort yet offers limited guidance where creative processes are shaped through AI.⁵⁷

A more coherent way to evaluate originality is by using human creative control.⁵⁸ The main issue is not whether AI has been employed, but whether the human actor still has a considerable hold over the expressive elements of the work. This could be evaluated in three aspects.⁵⁹

To begin with, the nature of human input should be explored by the courts. Simple initiation of an AI system or generic prompting might not be enough, but repeat prompting, refining and controlling outputs⁶⁰ can reflect intellectual input.

Secondly, the courts must consider the amount of control over expression. Originality is linked with more human influence over composition, style or structure.⁶¹

Thirdly, courts should assess the extent to which the work exhibits identifiable creative decisions by the human actor such as selection, arrangement and decisions.⁶²

This approach aligns with the existing principles across multiple jurisdictions. The emphasis

⁵⁶ *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 (1991) 345; *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37]; *Eastern Book Company v DB Modak* (2008) 1 SCC 1 [36]–[38].

⁵⁷ Anthi Gaidartzi and Irini Stamatoudi, 'Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis' (2025) 14(4) *Laws* art 57 <https://www.mdpi.com/2075-471X/14/4/57> accessed 20 February 2026.

⁵⁸ Jane C Ginsburg and Luke A Budiardjo, 'Authors and Machines' (2019) 34(2) *Berkeley Technology Law Journal* 343 https://btjl.org/data/articles2019/34_2/01_Ginsburg_Web.pdf accessed 20 February 2026.370–78.

⁵⁹ Johannes Fritz, 'Understanding Authorship in Artificial Intelligence-Assisted Works' (2025) 20(5) *Journal of Intellectual Property Law & Practice* 354, 366–69 https://www.researchgate.net/publication/388242384_Understanding_authorship_in_Artificial_Intelligence-assisted_works accessed 21 February 2026.

⁶⁰ US Copyright Office, Copyright Registration Guidance (n 5) 16192–94.

⁶¹ *Painer v Standard VerlagsGmbH* (C-145/10) EU:C:2011:798 [89]–[94].

⁶² Fritz, 'Understanding Authorship in Artificial Intelligence-Assisted Works' (2025) (n 59) 362–66.

on human authorship in the U.S.,⁶³ the concept of intellectual creation in the EU,⁶⁴ and the doctrine of skill and judgment in Indian law are all given due recognition through this approach.⁶⁵ Therefore, it is imperative to understand that human creative control test doesn't depart from the standard of originality but offers a more nuanced method for applying the current thresholds to any AI generated works.

3.5 OPERATIONALISING HUMAN CREATIVE CONTROL IN ADJUDICATION.

The practical challenge is to establish the limit of human involvement. The problem can be considered to be more of a threshold than a category.⁶⁶ Therefore, the main question is how much human contribution to creativity is required to maintain originality.

The difference between the causal and the creative contribution⁶⁷ is a good starting point. The mere activation of an AI system or a simple prompt is a causal relationship but does not constitute authorship. In comparison, the repetitive prompting, refinement and deliberate modification may demonstrate genuine creative involvement.⁶⁸

Curatorial judgment is another key factor that can be referred to as the exercise of intellectual choice in the process of selecting, organizing, and refining the AI generated output.⁶⁹ Where these decisions are guided by aesthetic or conceptual factors,⁷⁰ they could facilitate a determination of originality. But when the selection is random, or determined by automated processes, then it is not a manifestation of creative input. On the other hand, when human involvement is only to giving generic prompts or passively accepting system generated outputs without making any meaningful input into them, the originality threshold should not be considered to be met.⁷¹

The degree to which the final expression is dictated by the system itself, is also an issue that has to be considered the courts. In cases where the output is largely determined by the architecture of the algorithm or the data on which the algorithm is trained, the scope of human

⁶³ Feist Publications Inc v Rural Telephone Service Co Inc 499 US 340, (1991) 345–46

⁶⁴ Infopaq International A/S v Danske Dagblades Forening (C-5/08) [2009] ECR I-6569 [37]–[39].

⁶⁵ Eastern Book Company v DB Modak (2008) 1 SCC 1 [33]–[42].

⁶⁶ Fritz, 'Understanding Authorship in Artificial Intelligence-Assisted Works' (2025) (n 59) 360–62.

⁶⁷ Thaler v Perlmutter 687 F Supp 3d 140 (DDC 2023) 148–53.

⁶⁸ Hafiz Gaffar, Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) (n 3) 9.

⁶⁹ Fritz, 'Understanding Authorship in Artificial Intelligence-Assisted Works' (2025) (n 59) 362–66.

⁷⁰ Painer v Standard VerlagsGmbH (C-145/10) EU:C:2011:798 [89]–[94].

⁷¹ US Copyright Office, Copyright Registration Guidance (n 5) 16193–94.

creativity is diminished.⁷²

Lastly, timing of human input is important. The contribution to the design of the system or training of the model may not be considered as authorship of a certain piece of work, unless the contribution is directly related to the final form of the work.⁷³

These considerations do not involve a strict formula, but give a consistent method of determining whether a work is sufficiently contributing to human intellectual efforts. Among these factors, the ultimate factor must always be whether the human actor had a meaningful control⁷⁴ over the expressive expression of the final work must always remain the defining factor, whereas the rest of the factors act as guides in determining the central question.

3.6 IMPLICATION OF DOCTRINAL CONSISTENCY AND FUTURE ADJUDICATION.

Existing principles of originality can be applied uniformly across jurisdictions by adopting a human creative control approach. It corresponds with the focus on creativity in U.S. law, concept of intellectual creation in EU law, as well as the necessity of skill and judgment in Indian law.⁷⁵

The methods to deal with the AI-generated works already exist within the doctrine of originality. What is required is a more careful and structured application of those principles.⁷⁶

Thus, the main question is not whether copyright law can accommodate AI system but how it can achieve this without compromising its fundamental commitment to human creativity. The law can address the changes in technology without losing its conceptual integrity by concentrating on the quality of the human involvement.⁷⁷ If rightly perceived, the problem associated with AI is not the problem of the insufficiency of the doctrines, but the problem of

⁷² Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (University of Surrey PhD thesis, 2020)

https://openresearch.surrey.ac.uk/view/pdfCoverPage?download=true&filePid=13140320480002346&instCode=44SUR_INST accessed 21 February 2026. 72–78.

⁷³ Gaidartzi, ‘Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis’ (2025) (n 57) 9–12.

⁷⁴ *Nova Productions Ltd v Mazooma Games Ltd* [2007] EWCA Civ 219, [51]–[53].

⁷⁵ *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 (1991) 345; *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37]; *Eastern Book Company v DB Modak* (2008) 1 SCC 1 [36]–[38].

⁷⁶ *Gervais The Machine as Author* (2020) (n 33) 2087–93.

⁷⁷ Mishra, ‘AI-Generated Work and its Implications on Copyright Law in India’ (2025) (n 53) 39–42.

calibration of the doctrines.⁷⁸

CHAPTER 4

AUTHORSHIP AND HUMAN CREATIVE CONTROL IN AI-GENERATED WORKS

4.1 THE HUMAN AUTHORSHIP AS THE BACKBONE OF COPYRIGHT PROTECTION.

The copyright protection framework is built on foundational axis of authorship.⁷⁹ In different jurisdictions like US, Europe Union, the attribution of authorship assumes that there is a legal author, traditionally understood as a human agent who exercise intellectual creativity.⁸⁰ This principle is not purely procedural but fundamentally normative as it reflects philosophical justification of copyright as a regime meant to reward and recognise human creative effort.

In US, this position has been reinforced by both administrative practice and judicial interpretation. In *Burrow-Giles Lithographic Co v Sarony*, the Supreme Court acknowledged authorship in a photograph because it represented the intellectual conception of the photographer.⁸¹ The ruling underscored the fact that authorship is conditioned to the human ability to influence expression by making creative decisions. Recently in *Thaler v Perlmutter*⁸², the U.S. District Court held that a work created autonomously by an artificial intelligence system could not be given any copyright protection and that human authorship was an inseparable requirement for copyright protection.⁸³

Similarly, European jurisdiction views authorship in the context of the idea of the own intellectual creation of the author, as expressed in *Infopaq International A/S v Danske Dagblades Forening*.⁸⁴ This requirement assumes a direct connection between the work and the personality of the author which is expressed in the free and creative decision making. This focus on human intellectual autonomy is also strengthened in *Cofemel v G-Star Raw* in which

⁷⁸ World Intellectual Property Organization, Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence (WIPO, 21 May 2020) (n 2) paras 67–74.

⁷⁹ Hafiz Gaffar, Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) (n 3) 24–25

⁸⁰ Ayushee Sinha, AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks' (n 13) 8.

⁸¹ *Burrow-Giles Lithographic Co v Sarony* 111 US 53 (1884) 58-60.

⁸² *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023)

⁸³ *Ibid.*

⁸⁴ *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37].

the Court of Justice made it clear that originality is a result of creative decision-making, not technical execution.⁸⁵

Although the Copyright Act, 1957⁸⁶ in India acknowledges the existence of computer-generated works in the Indian Copyright law in Section 2(d)(vi),⁸⁷ the human agency remains in the center of the doctrinal approach. The decision in *Eastern Book Company v D.B. Modak*⁸⁸ by the Supreme Court reaffirms that the basis of authorship lies in the use of skill and judgment with a sense of creativity.⁸⁹ Hence statutory provisions may be more accommodating of non-traditional modes of creation; the normative framework is human-centric.

The standard principle is manifested in the convergence of jurisdictions: authorship and a human contribution to intellectual work cannot be separated. This rule is even more tensed within the framework of AI-generated work, as the locus of creativity is decentralized within the human and machine processes.

4.2 IS THE ARTIFICIAL INTELLIGENCE AN AUTHOR?

Whether the artificial intelligence can be identified as an author is one of the most disputable topics in modern copyright debate.⁹⁰ Although technological advancements has allowed AI systems to produce output that can be considered similar to human creativity, authorship cannot be legally recognized based solely on functional similarity.⁹¹

In doctrinal sense, authorship involves intellectual conception, intentionality and choice of creation.⁹² In spite of their complexity, AI system are algorithmic systems propelled by training data and probabilistic modelling. They do not have independent consciousness, legal personality, and normative qualities that is associated with authorship.⁹³

The statutory and administrative reactions have massively opposed the recognition of AI as an

⁸⁵ *Cofemel – Sociedade de Vestuário SA v G-Star Raw CV EU:C:2019:721*, [29]–[30].

⁸⁶ Copyright Act 1957.

⁸⁷ Copyright Act 1957 (India), s 2(d)(vi).

⁸⁸ *Eastern Book Company v D.B. Modak* (2008) 1 SCC 1.

⁸⁹ *Ibid.*

⁹⁰ Gervais, *The Machine as Author* (2020) (n 33) 2055–58.

⁹¹ US Copyright Office, *Copyright Registration Guidance* (n 5) 16192–93.

⁹² Ayushee Sinha, *AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks* (n 13) 10.

⁹³ Hafiz Gaffar, *Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape* (2024) (n 3).

author. In *Thaler v Perlmutter* the U.S.⁹⁴ court clearly stated that copyright act does not offer protection to works that are created without human authorship.⁹⁵ In the same vein, in its recent policy guidance on AI-generated works, the U.S. Copyright Office has once again made it clear that copyright only applies to material that involves the input of human creative effort.⁹⁶

It is in line with previous judgement like *Naruto v Slater* where the Ninth Circuit did not apply copyright law to a photograph captured by a non-human actor (a macaque), stating that only human beings could be the authors of a work under copyright.⁹⁷ Although the case did not entail AI, its reasoning support the general principle according to which non-human entities cannot be regarded as authors.

As a policy, the acknowledgement of AI as an author would cause serious doctrinal and practical issues. It would interrupt with the distribution of rights, since AI systems have no legal status to own, transfer, or enforce rights.⁹⁸ Further, it would compromise the incentive system of the copyright law, which is meant to compensate human creativity, and not machine production.⁹⁹

Accordingly, it has been widely agreed among the jurisdictions that AI cannot be considered an author.¹⁰⁰ The more pertinent question is not whether AI can be an author but how authorship should be assigned in works that make use of AI.

4.3 THE DIFFERENCE BETWEEN AI-ASSISTED AND AI-GENERATED WORKS IN AUTHORSHIP ANALYSIS.

As discussed in Chapter 2, the distinction between AI-assisted and AI-generated works is central to understanding attribution of authorship in a work.¹⁰¹

This approach to authorship attribution is also reflected in comparative judicial development, particularly in Chinese jurisprudence, in *Li v Liu*¹⁰², where Beijing internet court recognise

⁹⁴ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023).

⁹⁵ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023) 146-148.

⁹⁶ US Copyright Office, Copyright and Artificial Intelligence, Part 2: Copyrightability (n 4).

⁹⁷ *Naruto v Slater* 888 F 3d 418 (9th Cir 2018). 426-28

⁹⁸ Gervais, *The Machine as Author* (2020) (n 33) 2063–2064.

⁹⁹ Ayushee Sinha, *AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks* (n 13) 13.

¹⁰⁰ US Copyright office, *Copyright Registration Guidance* (n 5). 16191–92.

¹⁰¹ Lionel Bently, *Intellectual Property Law* (5th edn, Oxford University Press 2018) (n 17) 98.

¹⁰² *Li v Liu*, Beijing Internet Court, Civil Judgment No 11279, 27 November 2023.

copyright protection to AI generated image. In this case court emphasis that image show that intellectual contribution of user through, detailed prompts, iterative adjustment and output selection.¹⁰³ Such a reasoning reflects shift towards control based authorship where decisive factor is exercise of human action in expressive work.

In AI-assisted systems, human author still maintains the major control over creative process. AI serves as an aide that improves expression or increases the decision-making process of humans and does not substitute it.¹⁰⁴ In this instance, the human actor can be regarded as the author, because the ultimate work displays human intellectual input that can be identified. This argument is consistent with the reasoning in *Burrow-Giles*, that the application of a technological medium did not defeat authorship, as the ultimate expression remained under creative control of the human agent.¹⁰⁵

Contrarily, AI-generated works include outputs in which expressive components are autonomously determined by the system, and little or no human intervention is required.¹⁰⁶ In this case, the relationship between human intellect and expression is diminished. It is hard to find out who among human participants i.e the user, the developer, the system operator can be presumed to be the author.¹⁰⁷

This difference is not between two fixed categories, but instead relies on the different levels of human participation. In most instances, human intervention can be in the form of iterative prompting, selection, or post-generation editing. Thus, authorship attribution has to be based on the qualitative evaluation of creative control, as opposed to the actual presence of human engagement.¹⁰⁸

4.4 JUDICIAL AND POLICY REACTIONS TO AI AUTHORSHIP.

The judicial and policy reactions towards AI authorship indicate a conservative attitude toward maintaining the human engagement requirement of copyright legislation and respond to the

¹⁰³ Ibid.

¹⁰⁴ Ginsburg, 'Authors and Machines' (2019) (n 58) 369–72.

¹⁰⁵ *Burrow-Giles Lithographic Co v Sarony* 111 US 53 (1884) 58-60.

¹⁰⁶ Ayushee Sinha, AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks' (n 13) 13.

¹⁰⁷ Ayushee Sinha, AI-Generated Works in IP Laws: Contemporary Authorship and Ownership Challenges Amidst Evolving Legal Frameworks' (n 13) 13.

¹⁰⁸ Ginsburg, 'Authors and Machines' (2019) (n 58) 370–78.

new technological reality.¹⁰⁹

In the United States, the courts have taken stringent approach. In *Thaler v Perlmutter*, the court dismissed an argument that an AI system could be considered as an author, since human authorship is a condition to copyright protection.¹¹⁰ The U.S. Copyright Office has also declined to issue any registration for works which is fully produced by AI, but has granted protection to works that involve enough human creative effort.¹¹¹

The European Union has not specified AI authorship via legislation, but the jurisprudence implicitly rejects non-human authorship as it incorporates that the work must reflect the intellectual creation of the author.¹¹² Other policy debates in the EU have also shown resistance to recognise AI as a legal author and instead opted to modify the existing framework.¹¹³

In India, Section 2(d)(vi) of Copyright act where the statutory position is similar and assigns the authorship to the individual who leads to the creation of the work.¹¹⁴ Nonetheless, the judicial interpretation of these clauses in the generative AI context is not yet developed. The lack of definite jurisprudence poses a question mark on how authorship should be assigned in AI-generated works.

These conflicting approaches indicate that the world has no unified system of AI authorship. Although courts have often opposed attributing authorship to AI systems, there is no consensus on whether human actors should be attributed authorship to AI-generated works.

4.5 PROBLEMS WITH ATTRIBUTION OF AUTHORSHIP UNDER EXISTING LEGAL FRAMEWORKS.

The problem of attribution in AI-generated works raises various doctrinal and practical issues under existing legal frameworks.¹¹⁵

¹⁰⁹ Hafiz, Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) (n 3) 25–28.

¹¹⁰ *Thaler v Perlmutter* 687 F Supp 3d 140 (D.D.C. 2023).

¹¹¹ US Copyright Office, Copyright Registration Guidance (n 5). 16191–93

¹¹² *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C: 2009:465 [37][38].

¹¹³ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L 2024/1689 <http://data.europa.eu/eli/reg/2024/1689/oj> accessed 18 March 2026.

¹¹⁴ Copyright Act 1957 (India), s 2(d)(vi).

¹¹⁵ Ginsburg, 'Authors and Machines' (2019) (n 58) 1066.

To begin with, it is made difficult to determine an author because of the multiplicity of actors engaged in the creation process.¹¹⁶ The system is designed by developers, the user gives the inputs, and the operator deploys the technology. All of these actors can play a role in the creation of the work in one way or another, although not every contribution can be considered authorship.

Second, the issue of causal and creative contribution comes to a critical point. A user that simply has to enter a prompt may have a causal relationship with the output, but this role does not necessarily indicate creative authorship. Similarly, the system developers, who are to design the system, have a role to play in its functionality but do not necessarily have a control over the particular expression that is the final work.

Third, AI systems are highly opaque, which brings evidentiary issues. Complex machine learning models contain decision-making processes which are not easy to understand, and it often make it hard to determine the level of human intervention in the final output.

Fourth, the existing legal frameworks are based on binary differences of authors and non-authors and might not reflect the spectrum of human participation in AI-assisted creation.¹¹⁷ This makes borderline cases ambiguous in which the human contribution exists but not easily quantifiable.

A real-life example of this vagueness is based on the case of AI-generated art by Ankit Sahni called Suryast.¹¹⁸ Sahni used the AI platform RAGHAV to create the work of art by fusing his photograph with van Gogh the starry night and exerting control over the input selection and editing. Even though the work was first registered as having been copyrighted in India, its legal position became a matter of uncertainty, Sahni's contribution constituted authorship or mere facilitation. This ambiguity became more evident through comparative reactions: the U.S. Copyright Office would not provide any protection due to the absence of a sufficient amount of human input, whereas the Canadian recognition was much more accommodating to the creative contributions of Sahni. Thus, the case demonstrates the lack of a unified doctrinal criterion of differentiating causal involvement and meaningful creative control in AI-assisted

¹¹⁶ Hafiz, Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2024) (n 3) 26–28.

¹¹⁷ Lionel Bently, Intellectual Property Law (5th edn, Oxford University Press 2018) (n 17) 98–99.

¹¹⁸ Mohd Nasir Alam, Copyright Law in the Age of AI: Analyzing the AI-Generated Works and Copyright Challenges in India (n 15) 5588–89.

works.¹¹⁹

An analogous case occurred with *Zarya of the Dawn*, where the U.S. Copyright Office safeguarded the text and structure of a comic book but refused to safeguard AI-generated images created using Midjourney.¹²⁰ The case is important as it approaches authorship in hybrid work as a divisible and not a unified concept and protection is awarded only to the extent of proving a human intellectual contribution.¹²¹ Collectively, these instances reveal an overarching problem: the current principles of authorship find it difficult to evaluate the works where human and machine creativity are inextricably connected,¹²² which underscores the necessity of a more transparent framework which relies on human creative control.

These challenges support the need for principled approach that is based on the idea of human creative control. Courts can ensure that authorship remain aligned with the purpose of the copyright law by emphasizing the qualitative nature of human contribution, not the formal categories or technological labels.

Overall, the attribution problems explored in this chapter show that current authorship doctrine faces its biggest challenge not when human and machine contributions are disjoint, but when they are combined. This justifies the human creative control approach advanced in Chapter 3, which provides a principled way forward in such hybrid cases by emphasising the nature of the human involvement rather than the mere involvement of AI.

CHAPTER 5

COMPARATIVE ANALYSIS OF LEGAL APPROACHES TO AI-GENERATED WORKS

5.1 UNITED STATES: DOCTRINAL CERTAINTY THROUGH HUMAN AUTHORSHIP REQUIREMENT

The U.S. adopts a clear position regarding the AI-generated works and the presence of the copyright protection is conditioned by the necessity of the requirement of the human

¹¹⁹ Mohd Nasir Alam, Copyright Law in the Age of AI: Analyzing the AI-Generated Works and Copyright Challenges in India (n 15) 5590–91.

¹²⁰ United States Copyright Office, Re: *Zarya of the Dawn* (Registration No VAu001480196) (n 14) [1–3].

¹²¹ United States Copyright Office, Re: *Zarya of the Dawn* (Registration No VAu001480196) (n 14) 6–8.

¹²² Gervais, *The Machine as Author* (2020) (n 33) 2087–93.

authorship.¹²³ The courts and the administrative authorities have consistently upheld this position, most recently in *Thaler v Perlmutter*, in which the copyright protection was denied to the work created by an AI system. The decision of the U.S. Copyright office *Zarya of the Dawn*,¹²⁴ extends this approach by taking a disaggregated approach to authorship. Rather than evaluating the work as a whole, the Office broke it into component parts, protecting the narrative and arrangement of text, but refusing to protect the images generated by AI. This ruling confirms that authorship is determined at the level of the individual expressive elements and that the use of AI, including the act of prompting, does not constitute authorship, unless it affects the final expressive result.¹²⁵

The strength of U.S. approach lies in its doctrinal consistency. It retains the anthropocentric nature of copyright law and offers a clear and consistent test for protection. This clarity is achieved through a form of doctrinal consistency that is ill-equipped to deal with hybrid forms of creativity. In insisting on a clearly identifiable human authorship at the level of discrete elements, the approach fail to acknowledge forms of indirect creative control, such as iterative prompting or curatorial selection.¹²⁶ Therefore, it can lead to under inclusive results,¹²⁷ failing to protect works that demonstrate meaningful, but non-conventional forms of human creativity.

5.2 EUROPEAN UNION: CREATIVE AUTONOMY AND THE PERSONALITY-BASED STANDARD.

The European Union is a flexible approach that focuses on whether work is an intellectual creation of the author,¹²⁸ and originality is recognised even where technology plays a significant role in the creative process. Its focus on qualitative creative decisions supports AI-assisted creativity whereby the human input is either iterative or indirect.¹²⁹ Nevertheless, this flexibility leads to uncertainty as the doctrine has no clear boundary to decide when human intervention is substantial enough to be considered authorship. Creative autonomy is an abstract

¹²³ *Thaler v Perlmutter* 687 F Supp 3d 140 (DDC 2023) 148–53.

¹²⁴ United States Copyright Office, Re: *Zarya of the Dawn* (Registration No VAu001480196) (n 14) 6–8.

¹²⁵ US Copyright Office, Copyright Registration Guidance (n 5) 16192–94.

¹²⁶ Ginsburg, ‘Authors and Machines’ (2019) (n 58) 370–78.

¹²⁷ Annemarie Bridy, ‘Coding Creativity: Copyright and the Artificially Intelligent Author’ (2012) 5 *Stanford Technology Law Review* 1, 24–30.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1888622 accessed 10 April 2026.

¹²⁸ *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37]–[39].

¹²⁹ Anthi Gaidartzi, ‘Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis’ (2025) (n 57) 8–12.

concept that is inconsistently implemented, especially in the case of AI-generated art where the roles of both humans and machines are intertwined.¹³⁰ Although the EU model acknowledges human creative autonomy, it does not embody the same into a systematic and predictable framework¹³¹

This indicates that EU law recognises creative autonomy but does not specify a threshold for its exercise, thereby reinforcing the need for a structured test based on human creative control.

5.3 CHINA: JUDICIAL FLEXIBILITY AND NEW RECOGNITION OF AI-ASSISTED AUTHORSHIP.

China has taken a more pragmatic and situation-specific stance where courts have shown willingness to grant copyright protection of AI-assisted work, where human input is discernible. In *Li v Liu*,¹³² the Beijing Internet Court acknowledged that an AI-generated image could be copyrighted, and that the contribution of the user could be considered more than just initiating the process but also in the iterative prompt design, selection of refinement and determination of final output. The court regarded these acts as intellectual contribution which might affect the expressive outcome.

This method represents a functional approach to authorship, in which the creative control is achievable in the form of a structured interaction with generative technology instead of direct execution. This approach is suitable to technological reality, and capable of accommodating emerging forms of creativity.

However, lack of a threshold for determining human involvement creates doctrinal uncertainty.¹³³ This renders the decision-making process dependent on a qualitative judicial determination, which is unpredictable. The Chinese approach captures the concept of human creative control, but does not offer a consistent approach for applying it. This lack of a threshold means that the Chinese approach does not provide a standard that can be applied to future cases.

¹³⁰ Andrés Guadamuz, 'Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works' (2017) *Intellectual Property Quarterly* 2, 182–86 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981304 accessed 10 April 2026.

¹³¹ Guadamuz, 'Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works' (2017) (n 131) 182–186.

¹³² *Li v Liu* (Beijing Internet Court, Civil Judgment No 11279, 27 November 2023) [67–74].

¹³³ Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (University of Surrey PhD thesis, 2020) (n 72) 72–78.

These developments suggest protection should not depend on the fact of technological mediation, but rather on whether there is discernible human creative control in the work. In this sense, the Chinese approach implicitly aligns with the framework proposed in this paper.

5.4 INDIA: LEGAL AMBIGUITY AND DOCTRINAL CHANGE.

India is in a transitional and ambiguous position, with a tension between legal attribution and judicial emphasis on creativity. The legal definition of author is one who brings a work into existence,¹³⁴ whereas the judicial doctrine required skill, judgement and creative effort.¹³⁵

This dynamic can be observed in the work of Ankit Sahni who produced an AI-generated artwork *Suryast*. The work was created using the AI system RAGHAV by Sahni through the process of input selection and stylistic manipulation. It was initially given a copyright registration in India, which indicated that the legal framework can support AI-assisted creation. However, this approach is weak when compared to other jurisdictions. This work was not granted protection in the United States, where direct authorship of a human was the determining factor. This deviation indicates a significant weakness of Indian law: it acknowledges authorship based on causation, yet it does not have a specific differentiation between facilitation and creative control. *Suryast* case brings out a more profound doctrinal issue. There is no uniform approach to assessing the qualitative nature of the human contribution in Indian law, leading to uncertainty and inconsistency.¹³⁶

5.5 COMPARATIVE ASSESSMENT: CONVERGENCE, DIVERGENCE AND DOCTRINAL GAPS.

A comparative study shows that all jurisdictions formally adhere to the idea of human authorship, but differ in practice. The US favours clarity but rejects hybrid creativity;¹³⁷ the EU favours flexibility but lacks clarity;¹³⁸ China favours recognition of changing creative practices but lacks consistency;¹³⁹ and India remains doctrinal uncertainty.¹⁴⁰ These differences are not a disagreement about the significance of human creativity, but about the lack of a framework

¹³⁴ Copyright Act 1957, s 2(d)(vi).

¹³⁵ *Eastern Book Company v DB Modak* (2008) 1 SCC 1 [33]–[42].

¹³⁶ Mishra, 'AI-Generated Work and its Implications on Copyright Law in India' (2025) (n 53) 39–42.

¹³⁷ *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340, 345–46 (1991).

¹³⁸ *Infopaq International A/S v Danske Dagblades Forening* (C-5/08) EU:C:2009:465 [37]–[39]

¹³⁹ *Li v Liu* (Beijing Internet Court, Civil Judgment No 11279, 27 November 2023) [67–74].

¹⁴⁰ *Eastern Book Company v DB Modak* (2008) 1 SCC 1 [33]–[42].

for assessing it in AI-generated works. Current approaches rely on rigid exclusion, abstract reasoning, statutory attribution or case-by-case adjudication, none of which completely address the issue with respect to AI-generated works.¹⁴¹

The comparative analysis shows that the core issue is to determine the difference between causal and creative involvement.¹⁴² This is the void that the framework for meaningful human creative control, proposed in this dissertation, seeks to fill. Comparatively, this approach addresses the above divergences by offering a coherent approach to assessing the role of human authorship in the face of different technological contexts. In particular, the framework works by determining authorship through a structured inquiry into the nature of human contribution,¹⁴³ the level of human control over the expressive outcome, and whether the resulting work is a product of creative decisions made by the human actor in contrast to the input of the system itself.¹⁴⁴

CHAPTER 6

POLICY CHALLENGES, LEGAL REFORM, AND THE FUTURE OF COPYRIGHT IN THE AGE OF AI

The analysis developed in the preceding chapters demonstrates that the challenge posed by AI-generated works does not arise from any inherent inadequacy in copyright law itself. Rather, the problem is that there is no formalised and consistent approach of applying recognised principles to creation where human involvement is indirect, iterative, or mediated through artificial intelligence. While the approaches of the jurisdictions differ, they all point to the fact that copyright protection is premised on human intellectual activity.¹⁴⁵ However, this is not a divergence of doctrine, but rather a lack of a principled framework of determining when such activity exists in AI-assisted works.¹⁴⁶

This gap is evident in the relative divergence in Chapter 5. The United States is doctrinally

¹⁴¹ Gaidartzi, 'Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis' (2025) (n 57) 8–12.

¹⁴² Fritz, 'Understanding Authorship in Artificial Intelligence-Assisted Works' (2025) (n 59) 360–66.

¹⁴³ Mishra, 'AI-Generated Work and its Implications on Copyright Law in India' (2025) (n 53) 39–42.

¹⁴⁴ Gervais, 'The Machine as Author' (2020) (n 33) 2087–93.

¹⁴⁵ Gaidartzi, 'Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis' (2025) (n 57) 8–10.

¹⁴⁶ Gaidartzi, 'Authorship and Ownership Issues Raised by AI-Generated Works: A Comparative Analysis' (2025) (n 57) 8–12.

precise by being strictly exclusionary,¹⁴⁷ but struggles with hybrid works. The European Union provides some interpretive flexibility¹⁴⁸ but it is not accurate in its application. China is pragmatic,¹⁴⁹ although there is no standard doctrinal threshold. India, as demonstrated in the case of *Suryast*, is caught between statutory attribution and judicial recourse to creativity.¹⁵⁰ In all these systems, the problem lies in the same thing: the failure to clearly differentiate between mere participation in a process and real creative contribution in outcome. The gist of the dissertation is that the current copyright doctrine is not unable to deal with AI generated works; instead, it is just insufficient because there is no consistent criterion that can be used to assess human creative input.¹⁵¹

This dissertation fills that gap by proposing a framework that focuses on the meaningful human creative control.¹⁵² The framework does not change the notions of originality or authorship; it offers a systematic approach to their implementation in the case of AI-generated works. Its main argument is that the protection of copyright must be conditional upon the existence of substantive control of the expressive elements of a work by a human actor.

Operationally, this framework may be implemented with the help of a three-step judicial investigation.¹⁵³ To begin with, the courts have to determine the nature of human contribution in the creative process, which separates the acts that trigger or enable generation and those that are intellectual responses to the expressive form of the work. Second, the courts need to determine the amount of control that the human actor had over the end product, such as whether the choices made by the individual affected the form, style, or composition of the work. Third, courts have to consider whether the resulting expression is reflective of identifiable creative decision-making by the human actor, and not largely controlled by the system itself.¹⁵⁴ This method of systematic inquiry allows the courts to circumvent the abstract norms, and to enforce the human authorship requirement in a principled and consistent manner.

¹⁴⁷ *Thaler v Perlmutter* 687 F Supp 3d 140 (DDC 2023) 148–53

¹⁴⁸ *Painer v Standard VerlagsGmbH* (C-145/10) EU:C:2011:798 [89]–[94]

¹⁴⁹ World Intellectual Property Organization, Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence (WIPO, 21 May 2020) WIPO/IP/AI/2/GE/20/1 REV paras 71–74. https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_ai_2_ge_20/wipo_ip_ai_2_ge_20_1_rev.pdf accessed 30 April 2026.

¹⁵⁰ Mishra, ‘AI-Generated Work and its Implications on Copyright Law in India’ (2025) (n 53) 39–42.

¹⁵¹ Guadamuz, ‘Do Androids Dream of Electric Copyright? Comparative Analysis of Originality in Artificial Intelligence Generated Works’ (2017) (n 131) 182–86.

¹⁵² Ginsburg, ‘Authors and Machines’ (2019) (n 58) 370–78.

¹⁵³ Fritz, ‘Understanding Authorship in Artificial Intelligence-Assisted Works’ (2025) (n 59) 366–69.

¹⁵⁴ *Painer v Standard VerlagsGmbH* (C-145/10) EU:C:2011:798 [89]–[94]

The advantage of this solution is that it offers a balance between continuity of doctrine and technological change. It maintains the human-oriented foundation of the copyright law, but recognises that creative processes are increasingly enhanced by advanced tools. The qualitative element of human contribution highlighted in the framework avoids over-inclusion where protection is achieved without creativity and over-exclusion when genuine creativity is disregarded because of technology.¹⁵⁵

Policy wise, the findings of this dissertation do not warrant the creation of sui generis rights to AI-generated works.¹⁵⁶ These proposals risk fracturing the legal system and the normative basis of copyright protection. Rather, it is the systematic implementation of principles that would be a better remedy. It can be done by creating judicial guidelines that reflect the system of meaningful human creative control as a criterion of determining authorship and originality.¹⁵⁷ Courts can achieve consistency by integrating this approach into judicial reasoning without necessarily having to undertake radical legislative changes.¹⁵⁸ On broader scale, interpretive guidance formulated at international forums like WIPO may assist in achieving more harmonisation in how AI-assisted authorship is treated across jurisdictions.¹⁵⁹

After all, the issue of artificial intelligence is not the ability of the copyright law to evolve, but the ability to do so without affecting its fundamental principles. This dissertation has demonstrated that not only is adaptation possible but also necessary as long as the emphasis is on human creativity as the foundation of protection. The meaningful human creative control framework provides a consistent and a viable solution, which can address the discrepancies found in different jurisdictions and at the same time maintain the integrity of the legal system. This paper is important not because it suggests an abandonment of the doctrine of copyright, but because it shows how the current principles of copyright can be re tuned to address

¹⁵⁵ Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (University of Surrey PhD thesis, 2020) (n 72) 72–78.

¹⁵⁶ Gervais, *The Machine as Author* (2020) (n 33), 2087–93.

¹⁵⁷ World Intellectual Property Organization, *Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence* (WIPO, 21 May 2020) WIPO/IP/AI/2/GE/20/1 REV paras 71–74. https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_ai_2_ge_20/wipo_ip_ai_2_ge_20_1_rev.pdf accessed 20 April 2026.

¹⁵⁸ European Parliament, *Intellectual Property Rights for the Development of Artificial Intelligence Technologies* (Report, 2020/2015(INI), A9-0176/2020, 2 October 2020) https://www.europarl.europa.eu/doceo/document/A-9-2020-0176_EN.html accessed 30 April 2026.

¹⁵⁹ World Intellectual Property Organization, *Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence* (WIPO, 21 May 2020) WIPO/IP/AI/2/GE/20/1 REV paras 67–74. https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_ai_2_ge_20/wipo_ip_ai_2_ge_20_1_rev.pdf accessed 20 April 2026.

machine-mediated creativity without rupturing the doctrine.

The problem of artificial intelligence remains thus not the insufficiency of the doctrine of copyright, but the lack of a systematic system of its implementation. The human creative control framework offers approach by establishing protection based on demonstrable human contribution. It allows courts to differentiate between causal and actual authorship and still maintain the normative basis of copyright law. In this regard, AI does not demand a redefinition of copyright, but a more specific implementation of the existing principles.

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