Vilnius University Faculty of Law

Department of Public Law

Jonita Oržekauskaitė

II study year, International and European Law Programme Student

Master's Thesis

AI and International Copyright Law:
Is a Common Approach to Authorship Feasible?
Dirbtinis intelektas ir tarptautinė autorių teisė:
Ar įmanomas bendras požiūris į autorystę?

Supervisor: sr. lect. dr. Paulius Jurčys

Reviewer: prof. dr. Ramūnas Birštonas

Vilnius

ABSTRACT AND KEYWORDS

This thesis explores legal challenges surrounding authorship and copyrightability of works created using AI technologies, with a focus on the EU and US legal frameworks. It examines whether international private law mechanisms and choice of law instruments can provide legal certainty for authors in cross-border disputes. An analysis of the current legal framework highlights the absence of a unified notion of "significant human involvement" in authorship of outputs, resulting in fragmented outcomes and economic vulnerabilities for creators across jurisdictions. The thesis advocates for the application of choice of law instruments to ensure greater legal certainty in the uncertain field of copyright, proposing *lex originis* as a suitable principle for cross-border disputes on a global scale.

Keywords: works created with AI, copyrightability, international private law, choice of law, legal certainty.

TABLE OF CONTENTS

| INTRO | DUCTION3 | |
|----------------------|-----------------------------------------------------------------------------|--|
| 1. AU | THORSHIP IN THE AGE OF AI: GLOBAL AND NATIONAL APPROACH9 | |
| 1.1. | International Copyright Law and Works Created With AI9 | |
| 1.2. | AI and Authorship in European Union's Copyright Law Framework12 | |
| 1.3. | AI and Authorship in United States' Copyright Law Framework | |
| INTE | ERIM CONCLUSIONS I16 | |
| 2. CH | IOICE OF LAW ISSUES: THEORETICAL APPROACH18 | |
| 2.1. | Territoriality Principle in Intellectual Property Law | |
| 2.2. | Soft Law Instruments in the Context of Existing International Copyright Law | |
| Framework | | |
| 2.3. | Lex Loci Protectionis as The Choice of Law Principle27 | |
| 2.4. | Lex Originis As the Choice of Law Principle | |
| 2.5. | Lex Domicilii As the Choice Of Law Principle | |
| INTE | ERIM CONCLUSIONS II | |
| 3. CC | PYRIGHTABILITY OF OUTPUTS GENERATED WITH AI TOOLS: CHOICE | |
| OF LAW APPROACHES | | |
| 3.1. | Lex Loci Protectionis | |
| 3.2. | Lex Originis | |
| 3.3. | Lex Domicilii | |
| INTE | ERIM CONCLUSIONS III41 | |
| 4. CC | ONCLUSIONS42 | |
| LIST OF REFERENCES44 | | |
| SUMMARY 51 | | |

INTRODUCTION

Consider the two following scenarios.

Hypothetical Scenario #1: Imagine an artist using an AI tool to generate digital artwork by inputting multiple specific parameters like style or theme. The AI tool processes these inputs, producing a unique output the artist seeks to copyright. In this scenario, the creative process involves repeated use of one AI tool to refine the final outcome.

Hypothetical Scenario #2: Now let's imagine a creative process where the artist combines multiple different AI tools combined with traditional creative methods to produce a work. For example, an author may use one AI tool for creating text-based outputs, another for generating visual elements, and integrate these outputs with non-AI-generated material, such as hand-drawn illustrations. This hybrid approach results in a complex final product that blends AI-assisted and traditional creative processes.

Relevance of the topic. AI, as defined by the International Organization for Standardization as "a technical and scientific field devoted to engineered systems that generate outputs such as content, forecasts, recommendations, or decisions for a given set of human-defined objectives" has become a transformative tool across many sectors, including the creative industry (ISO/IEC 22989, 2022). Lately, the use of AI technologies has risen in multiple sectors, including the creative sector. In a survey conducted by Adobe, also known to be one of the leading companies in AI technologies, revealed that more than 80% of creative professionals are now using generative AI tools in their work (Adobe Communications Team, 2024). This widespread adoption highlights a significant shift in the creative industry, where AI tools are no longer supplementary aids to but an integral component of the artistic process.

The term "copyright," in its application, refers to the establishment of the right to reproduce works that are the product of human intellect and creativity (Bowker, 1912, p. 1). The Oxford English Dictionary defines copyright as a legal exclusive right granted to an author, allowing them to control the printing and publishing of their work (Oxford University Press). Similar to the way civil law governs the rights and obligations associated with physical property, copyright law provides a framework for safeguarding works not tied to physical possessions but instead expressed in a tangible medium of expression (Copyright Basics, 2021, p. 1). This is where intellectual property law becomes essential,

¹ ISO/IEC 22989: Artificial intelligence concepts and terminology, 2022. Publication can be accessed on: https://www.iso.org/obp/ui/en/#iso:std:iso-iec:22989:ed-1:v1:en.

providing a legal framework to protect creative works that meet the criteria of originality and fixation (Loren, 2016, p. 940). Copyright governs and safeguards works that exceed physical property, focusing on those expressed in tangible forms, such as writings, music, or visual art. These works are in fact tangible manifestations of human intellect, and through copyright protection, the law ensures that creators can benefit from their expressed intellectual efforts.

However, the integration of AI into the creative process challenges traditional copyright principles, particularly the concept of authorship. Copyright law has long been built on the notion that a human creator must be the creator of a work for it to be qualified as protected (Ginsburg, 2018, p. 132). This requirement raises critical questions about the status of works created using AI tools. Can a work generated according to hypothetical scenario #1, where a single AI tool is used and guided solely by human input, qualifies as a product of human creativity? Furthermore, how should copyright law address situations like hypothetical scenario #2, where multiple AI tools are used in combination with purely human-made material? Would the complexity of the creative process and the varied methods involved impact the determination of human input? These questions underline the growing tension between traditional copyright frameworks and the realities of AI-assisted creativity.

Today's copyright framework is fragmented. This is due to the territorial nature of intellectual property protection, including copyright, which means that a completely uniform approach to copyrightability concerning AI and authorship can not be achieved without a multilateral agreement on an international level (Gaffar, Albarashdi, 2024, p. 23). Without clear copyright protection, artists face significant risks when entering licensing agreements or attempting to monetize their creations. For example, in both hypothetical scenarios #1 and #2 highlight creators who produce unique works would more likely feel more certain in claiming the final product as their own due to the effort involved in output generation (Who Owns AI-Generated Output?..., 2024). This lack of legal certainty not only affects the legal status of works created with AI to0ols, but also jeopardizes their economic value. Without clear copyright protection, artists face significant risks when entering licensing agreements or attempting to monetize their creations. The absence of legal certainty means that the economic value of these works is vulnerable. Given the current international nature of cross-border relationships in intellectual property matters, there is no unified approach to determining whether existing international private law mechanisms can effectively govern intellectual property disputes across borders and facilitate a feasible approach between copyright law and works created using AI tools.

This thesis examines the current regulations in the EU and US to provide an understanding of the existing legal framework for copyrightability and authorship in the context of creative works produced using AI technologies. It explores established international private law mechanisms, including principles such as *lex loci protectionis*, *lex originis*, and *lex domicilii* to analyze their applicability to cross-border copyright issues. By addressing these issues, the thesis aims to determine whether a common approach to copyrightability for works created with AI tools can be achieved internationally and how legal certainty can be established for creators.

Main Research Question: Which choice of law rule could help achieve the greatest legal certainty regarding the copyrightability of outputs?

Aim: To determine which choice of law approach in international private law can support the feasibility of copyright protection for works created using AI within the current international copyright framework.

Task: To analyze the current legal framework for copyrightability and authorship of works created using AI technologies in the EU and US and to investigate choice of law principles in international private law to address cross-border copyright issues, emphasizing the lack of legal certainty at the international level. The thesis is directed toward creators using AI tools, academics, and lawmakers, aiming to propose solutions that ensure feasibility and legal certainty for copyright protection of works created using AI tools.

Objectives:

- 1. Analyze copyright regulations in the EU and US to understand the current legal framework for authorship and copyrightability of works created with AI tools.
- 2. Investigate different international private law choice of law mechanisms and their application to cross-border copyright disputes.
- 3. Propose suitable choice of law principles to address cross-border copyright issues and enhance legal certainty for authors creating works using AI tools.
- 4. Draw attention to the need for unified international solutions to address the copyrightability of works created with AI tools and achieve feasibility in cross-border disputes.

Methods: For this research, multiple methods will be employed. Data collection and analysis methods will form the foundational approach, gathering information from legal sources, scientific articles, and supplementary materials. This will include examining legal frameworks and regulations, focusing on national copyright laws in the European Union and the United States, as well as international copyright law. Case law from various jurisdictions will also be analyzed to explore the correlation between AI involvement in creative processes and copyright law, particularly concerning the requirement of human authorship.

A comparative method will analyze jurisdictions, including the EU and the US, focusing on their respective strategies for applying copyright law in the rise of AI technologies. Additionally, international private law mechanisms for resolving choice of law issues will be assessed to identify the most suitable principles for addressing cross-border copyright disputes.

The critical method will evaluate existing legal frameworks, highlighting gaps and inconsistencies in addressing challenges arising from the use of AI tools in the creative process. This analysis will emphasize the effectiveness and limitations of current legislative and judicial approaches, providing insights for areas requiring reform.

Finally, the analytical method will systematically assess selected legal norms, case law, and soft law instruments. This will clarify how these sources address the interaction between AI and copyright law, particularly concerning authorship, originality, and choice of law issues. By breaking down complex legal concepts, the analytical method will provide a clear framework for understanding the relationship between AI technologies and copyright law at both national and international levels.

Originality: global contribution by applying existing legal principles, rules, and guidelines to situations that the creators of these legal instruments could not have envisioned during their development. By addressing the challenges posed by works created using AI tools in the context of international private law and copyrightability, the thesis bridges the gap between traditional legal frameworks and the evolving realities of AI technologies. It aims to propose innovative solutions for cross-border copyright disputes, offering a fresh perspective on how existing legal instruments can be adapted to address the complexities of authorship and copyright in the age of AI.

Most important sources: The research for this thesis relies on a combination of legal acts, international treaties, soft law guidelines, and academic principles, which provide the

foundational framework for analyzing copyrightability, authorship, and choice of law issues in cross-border disputes involving works created with AI tools. The following sources are deemed most important: EU Copyright Directive (Directives 2001/29/EC and 2019/790); US Copyright Act; Berne Convention for the Protection of Literary and Artistic Works; ALI Principles on Intellectual Property; CLIP Principles (Conflict of Laws in Intellectual Property); Kyoto Guidelines.

1. AUTHORSHIP IN THE AGE OF AI: GLOBALAND NATIONAL APPROACH

1.1. International Copyright Law and Works Created With AI

AI can function as either a tool for creating a work or as a tool to assist in the creative process. The distinction between these roles is critical to understanding how AI technologies intersect with creative materials and, subsequently, with copyright law. This distinction has significant implications for how works created using AI are evaluated for copyright protection². AI is not used in a singular, uniform manner, rather, it can be used in many different ways, each leading to distinct creative outcomes. To elaborate, creative processes involving AI technologies typically consist of human input (such as prompting or setting parameters) and an output (the result generated by the AI tool), which depends merely on the nature and quality of the input.

The most basic application would be whereas AI might be used to generate creative work with minimal human involvement. For instance, a single prompt provided by a human user could produce a complete output. This straightforward interaction highlights a use case where the AI tool takes on a dominant role in the creation process, leaving the human contribution relatively limited. A more involved method might involve a human providing numerous prompts, potentially hundreds or thousands, refining the outputs through a complex and consistent process. In such cases, the human's role expands, as their input directly influences the final result. This demonstrates a more complex interaction, where the outcome is highly dependent on the scale and sophistication of the human contribution. Such method would reflect the method used to create a work in the hypothetical scenario #1 presented earlier in the thesis. Finally, AI tools can also play a role in hybrid creative processes, where they are used alongside other tools and techniques. For example, as presented in hypothetical scenario #2, an artist might use multiple AI tools to generate visual elements while combining them with traditional methods, such as hand-drawn illustrations, or with other technological tools like image retouching software. In this scenario, the creative process involves a blend of human effort, traditional tools, and AI technologies, each contributing to the final product.

competent authority will later assess the extent of AI involvement to determine whether the criteria for human authorship and originality have been satisfied.

² The distinction will impact whether works created with AI can be subject to copyright protection, as a

This proposed distinction between these methods of using AI in creative processes, being: a) minimal prompting; b) extensive prompting; c) creative process alongside with integration of other tools; is crucial to understand that the role of human input can differ depending on the method used in the creative process(es), which ultimately can lead to different outcomes in terms of works' copyrightability (Gaffar, Albarashdi, 2024, p. 23). Under the traditional paradigms of copyright law, expressions of the human mind are protected as intellectual property for the benefit of individual creators and humanity as a whole. This paradigmatic aspect might suggest that the level of human input in these varying methods might potentially influence whether a work meets the standards for copyright protection or not (Mezei, 2023). This necessitates a detailed examination of how copyright law in the EU and US addresses authorship and originality in works created using AI technologies. Specifically, it requires an exploration of the current legal position regarding the granting of copyright protection to works created through varying degrees of human interaction with AI tools. Understanding these aspects is essential to navigate the evolving relationship between copyright law and AI-assisted creativity further.

In the context of international copyright law and its application to works created using AI, the concept of international copyright law will be examined. Generally, international copyright law is comprised of various public international law instruments, including treaties, conventions, and international organizations, with the aim of establishing copyright protection across multiple jurisdictions (Ruse-Khan, 2021). These instruments are designed to provide a foundation for regulating copyright matters and are exercised through treaties or conventions that are typically ratified by individual states. Once a state ratifies such an international agreement, its implementation and enforcement become the sole responsibility of that state's national legal system. A state may either incorporate the ratified agreement into its domestic legal provisions or regard it as self-executing (Dreyfuss, 2022). While the methods of enforcement may vary depending on whether a country follows monist or dualist legal doctrines, the execution of specific provisions within the domestic legal framework remains crucial. It is also important to note that, although international instruments are drafted, negotiated, and constructed with great care, their enforceability ultimately depends on each state's approach. This means that the provisions set forth in international public law instruments often leave room for individual countries to adapt their domestic regulations to align with their specific needs and circumstances (Miaz et al., 2024, p. 46). Therefore, when examining the current functioning of international copyright law, it is essential to consider the correlation between international agreements and national laws. Without this perspective, the broader

implications of international copyright law, particularly in its application to works created using AI technologies, cannot be fully understood.

Now, with an understanding of AI and international copyright law, the question of whether creative works created with or "by" AI tools can be granted copyright protection will be analyzed³. This question is complex and depends on several factors, the first being authorship. For a work to be granted copyright protection, there must be an identifiable author⁴. Typically, authorship is assigned to the person who created the work (Ginsburg, 2018, p. 131). However, an exception exists for works made for hire, where authorship is assigned to an employer if the work is created as part of employment and the employee has waived their rights through an agreement (Works Made For Hire, 2024).

When works are created with or "by" AI tools, the lack of legal certainty in international law regarding such works' copyrightability leads to multiple possible variations of authorship assignment. The first and most common variation, according to some authors, is that authorship of the output shall belong to the creator who used the AI tool (Yanisky-Ravid, 2017, p. 3). Another possibility is that authorship can be assigned to the creator of the AI tool, particularly the designer of the algorithm (Formosa et al., 2024, p. 3). This perspective can extend further to consider multiple authorship models, such as assigning authorship to the company that owns the tool or to the individual who designed the algorithm. Analyzing the possibilities for determining authorship in this subject matter requires evaluating their applicability and alignment with the fundamental principles of copyright law, however, this will not be examined as it falls beyond the scope of this thesis. Another, more restrictive approach suggests that the inability of works created using AI tools to qualify for copyright protection could be a reason why authorship should not be assigned to anyone (Jiang, 2023, p. 24).

On the international level, while the concept of authorship is not explicitly defined, instruments like the Berne Convention emphasize the protection of "literary and artistic works," which are generally understood to be creations resulting from human intellectual effort. This context and the historical development of the Berne Convention suggest that authorship pertains to human creators (Ginsburg, 2018, p. 132). On the national level, for example in the US, the approach to authorship in works generated using AI tools currently

⁴ Exceptions exist for works where the author cannot be located or identified, such as under the EU Orphan Works Directive and the US Copyright Act (17 U.S.C. §302(c)), which protects anonymous or pseudonymous works based on their publication date.

³ The specific way of writing "by" in the thesis should reflect the degree of the creator's involvement in the creative process. The use of "by" should indicate the level of the creator's contribution, as outlined in Hypothetical Scenario #1.

aligns with the latter scenario, where such works are not considered copyrightable under the current legal framework. However, this does not necessarily represent the ultimate correct trajectory for copyright law regarding AI use. On the contrary, international copyright law in respect to use of AI in creative process remains an uncertain and underdeveloped area, making it premature to designate any current stance as the definitive foundation for future developments. Historical patterns in copyright law, such as the invention of the printing press in the 15th century, which introduced the unprecedented ability to produce and distribute copies without any legal regulation at the time, demonstrate how legal systems can lag behind societal changes (Joyce, 2010)⁵. Throughout the history of copyright law, numerous challenges from various means and technologies introduced have arisen, yet the copyright system has consistently managed to adapt (Geiger, 2024, p. 36). Therefore, at this particular moment, further questions must be explored to make informed decisions regarding the complex issue of the copyrightability of works involving the use of AI in the creative process. Thus, currently authorship in the context of AI and copyright largely depends on national legal provisions. In cross-border disputes, the question of applicable law remains crucial. To address this, the thesis further examines the current legal approaches in the EU and US.

1.2. AI and Authorship in European Union's Copyright Law Framework

The current perspective within the European Union regarding the copyrightability of works created using AI tools is not yet fully defined (Artificial intelligence and copyright..., 2024). While conventions and treaties such as the Berne Convention, alongside EU directives and regulations, strive to harmonize copyright law across member states, many specific aspects remain subject to national legislation. The EU has enacted several legal instruments, including the Copyright Directive⁶, which aims to provide a unified framework for copyright protection. However, AI's capabilities present complexities that existing laws struggle to address, particularly concerning authorship and its compatibility with copyright frameworks (Marchenko et al., 2024, p. 65). Notably, the EU's stance on authorship and copyrightability for works created with or "by" AI technologies reflects a shared requirement across member states for human involvement, in order to recognize a

_

⁵ It took nearly two centuries to address the issue of the ability to distribute multiple copies of original works without authorization, introduced by the printing press, with the introduction of the Statute of Anne in 1710.

⁶ Directive 2001/29/EC; Directive (EU) 2019/790.

person as an author. However, no uniform approach to defining "authorship" exists within the current legislative framework (Fritz, 2024, p. 556). Nonetheless, while the requirement of human involvement in the creative process provides a degree of harmonization, differences emerge in how member states approach future intellectual property protection and the integration of AI into copyright law (Marchenko et al., 2024, p. 50). It appears that some states are already actively discussing the need for reform and are discussing new approaches, while others adhere strictly to the existing legal framework without acknowledging the potential challenges posed by AI in copyright law field. While the determination of whether a work can qualify for copyright protection depends on the level of human creative input involved, it appears that works created using AI as one of the tools in creative processes, as defined in hypothetical scenario #2 can be considered eligible for copyright protection under both the EU's directives and legal frameworks established at the EU level, as well as under the national laws of various member states (Marchenko et al., 2024, p. 50).

Another significant aspect raising questions about the feasibility of copyright laws for works created with AI tools is the fundamental requirement of the author's creative input in the creation process. This criterion, established in CJEU rulings regarding human creativity and originality, implies that only works reflecting the author's own intellectual creation can qualify for copyright protection (Infopaq International A/S v Danske Dagblades..., 2009). While the interpretation of this requirement concerning AI remains unresolved at the EU level, it suggests that works created using AI technologies may qualify for protection if the creativity input criterion is met. Notably, although the European Parliament has acknowledged the need to enhance legal certainty in this area, no substantive actions have yet been taken to address this issue (O'Callaghan, 2023, p. 305). This legislative gap creates uncertainty about the extent to which the use of AI-based tools in the creative process might conflict with the human creativity requirement or whether a clear distinction should be established regarding the level and method of AI tool involvement in creative processes. Resolving this complex issue depends on the EU lawmakers' future positioning, which remains undetermined. Some scholars have even proposed the establishment of sui generis rights as a potential solution (Hardman and Housel, 2023).

_

⁷ Countries such as the Netherlands and Poland are actively engaging in debates on potential reforms to their intellectual property laws to address AI-related issues, although no specific legislation has been enacted yet. In contrast, countries like Greece and Romania have yet to initiate significant discussions on AI and continue to rely on traditional intellectual property laws without any modifications.

Meanwhile, although the CJEU has not issued any rulings on the subject matter and international copyright law lacks comprehensive decisions due to disputes either not reaching courts yer or being in early judicial stages, the Czech national court has delivered a noteworthy ruling on the copyrightability of a work created using AI tools. In this case the claimant generated an image through a simple prompt with minimal effort invested in the output. The case examined issues of infringement and validity, as the image was subsequently used without authorization by a third party. However, the court ruled that the image could not be granted copyright protection due to the lack of the claimant's creative input, as required under Czech law (S. Š. v Taubel Legal, 2023). The Court found that the claimant failed to provide sufficient evidence beyond their personal statement, such as detailed records of the prompt or the process used. This inability to prove a direct link between the claimant's input and the AI's output contributed to the Court's decision to deny copyright protection. Notably, the court emphasized that the claimant must demonstrate their input in the creation process and specifically show how the prompt directly led to the creation of the particular work (S. Š. v Taubel Legal, 2023).

1.3. AI and Authorship in United States' Copyright Law Framework

In the US, the stance on the feasibility of copyright protection for works involving the use of AI technologies has been somewhat more defined, though it remains uncertain whether the current position can be considered broadly acceptable. In a 2023 ruling, the US District Court for the District of Columbia held that works are eligible for copyright protection only when human involvement is present in the creative process (Thaler v. Perlmutter, 2023). In this case, the petitioner asserted that the work was created by AI, but it was actually generated based on an individual's crafted prompt input into the AI tool. The plaintiff challenged both the Copyright Office and the court, arguing that their rulings fail to account for the nuanced complexities of future disputes. Nonetheless, the court's reasoning offers significant takeaways. One such takeaway is the assertion that human creativity is the essential foundation of copyright protection, and neither this requirement nor copyright law extends to works generated entirely by new technologies without any human input.

Similarly, in the Zarya of the Dawn case in 2023, the US Copyright Office ruled on a graphic work created using the AI tool MidJourney. Despite the author's input of hundreds or thousands of text prompts, the US Copyright Office denied copyright protection for the images created with the AI tool, citing the lack of creative control and therefore human

authorship (US Copyright Office, 2023). This case, matching the hypothetical scenario #1, underscores the tension between traditional copyright laws, which require human creativity, and modern works that heavily rely on AI tools in creative processes. It also highlights the uncertainty faced by artists regarding the copyrightability of AI-assisted creations, leaving them unsure whether their work can be protected under the current legal framework. Importantly, this uncertainty places the economic value of such works at risk due to their ambiguous legal status. However, current copyright frameworks largely overlook the artist's effort, focusing primarily on whether AI was involved, regardless of its role and connection to the creator's input in the process (Mathur, 2023). These challenges emphasize the need to analyze whether current choice of law principles can provide legal certainty and consistency in cross-border disputes.

Later the same year, the US Copyright Office issued guidance (Guidance) reaffirming its position and clarifying key points on the use of AI tools in creative processes and copyrightability in the US (Library of Congress Copyright Office, 2023). The guidance first stated that works are eligible for copyright protection when they reflect human creativity. It emphasized that works created autonomously by AI tools cannot qualify for copyright protection due to the lack of human creative contribution in the creation process. Furthermore, the guidance highlighted that works created using AI as an assisting tool to express the author's "own original mental conception, to which they gave visible form," may qualify for copyright protection. However, such determinations are to be made on a case-by-case basis, allowing the Copyright Office to evaluate each work individually, considering the extent of human creative involvement (Library of Congress Copyright Office, 2023). While it is clear that works generated with minimal human input, where the dominant creative process is carried out by AI tools, do not meet the human authorship requirement, the US Copyright Office does not clearly define what constitutes a significant level of human involvement in the creative process, resulting in considerable legal uncertainty in this area.

Another requirement introduced by the Guidance from the US Copyright Office is the obligation for copyright protection applicants to disclose whether any AI tools were used in the creative process and to what specific extent (Library of Congress Copyright Office, 2023). While this might be seen as a reasonable and standard formality in the application process, it should be noted that imposing such a disclosure requirement represents a shift toward a stricter and more conservative position by the US Copyright Office. Moreover, this requirement may conflict with the Berne Convention, specifically the "no formalities" principle outlined in Article 5(2) (Berne Convention, 1886). The Berne

Convention prohibits the imposition of formalities as a condition for copyright protection, and the introduction of a disclosure requirement could be viewed as creating an additional burden for creators. The outcome of this requirement is that only those aspects of a work demonstrably created by a human author, without material generated by AI tools, will be eligible for copyright protection (Library of Congress Copyright Office, 2023). Conversely, failure to disclose the use of AI tools in a work where they were indeed used could result in the rejection or invalidation of copyright protection. This creates a significant challenge for creators, as they must navigate new complexities in demonstrating their contribution to works involving AI.

The Theatre D'Opera Spatial case serves as an example where a work created using an AI tool gained societal recognition after being selected as a prize-winning artwork at a fair but was denied copyright protection by the US Copyright Office (Copyright Review Board, 2023). The Office determined that the work did not meet the requirement for human authorship due to insufficient creative input from the creator. The Office emphasized that the AI tool played the dominant creative role in the process, and despite the author using over 600 prompts to achieve the final output, the human contribution was deemed insufficient. It concluded that only human-made contributions to the work could qualify for copyright protection, provided they are explicitly stated in the copyright application and substantiated by the applicant (Copyright Review Board, 2023).

As already noted, US case law on the copyrightability of works created using AI technologies is either in its early stages or has resulted in rulings that leave critical questions unanswered for users of generative AI tools (Oratz et. al, 2024, p. 13). It is evident that works created solely using AI tools cannot be granted copyright protection, but the level of significant input required for a work to satisfy copyrightability requirements is not clearly defined. The emerging legal framework introduces new challenges for creators, such as the requirement to disclose the use of AI technologies. However, legal uncertainty persists, leaving creators in a vulnerable position, unsure whether their works can enjoy copyright protection.

INTERIM CONCLUSIONS I

 International copyright law is based on public international law instruments like the Berne Convention, aiming to harmonize copyright protection across jurisdictions. However, the enforcement and interpretation of these instruments rely heavily on national legal systems and international private law instruments, allowing significant variations between countries.

- 2. In the EU, copyright laws emphasize significant human involvement as a criterion for satisfying copyrightability. However, there is no clear framework to define the substantive level of a creator's involvement in the creative process when using AI tools, resulting in considerable uncertainty. The absence of a uniform definition of "significant human input" remains unaddressed, even though EU lawmakers recognize the issue. Moreover, extensive case law that could reflect the situation or establish precedents is lacking, as disputes are still in their early stages or have not yet been brought to court
- 3. The US has taken a more defined stance, explicitly requiring human involvement for copyright eligibility. Cases such as *Thaler v. Perlmutter* and *Zarya of the Dawn* illustrate the US Copyright Office's position that works generated solely using one AI tool, as emphasized in hypothetical scenario #1, cannot satisfy the requirement of human authorship. However, ambiguity persists regarding what qualifies as "significant" human input. Additionally, the current position of the US Copyright Office raises questions about whether a proactive approach toward recognizing works created with AI as copyrightable can be feasible under the existing framework.
- 4. Creators face significant vulnerabilities due to the lack of clarity on whether their works can be copyrighted, which directly impacts the economic value of such works. To address these complexities, it is crucial to explore alternative mechanisms within private international law, particularly in resolving choice of law issues.

2. CHOICE OF LAW ISSUES: THEORETICAL APPROACH

2.1. Territoriality Principle in Intellectual Property Law

International copyright law is governed by several multilateral treaties and conventions that establish the framework for global copyright protection. Binding instruments include the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention), the Universal Copyright Convention, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), and the WIPO Copyright Treaty. While these treaties and conventions provide a framework for international public law mechanisms, international private law plays a critical role in defining how cross-border disputes are handled, making it an essential component of international copyright law. A key aspect of international intellectual property law, closely aligned with private international law, is the principle of territoriality in intellectual property rights. This principle holds that intellectual property rights, whether registered (e.g., trademarks, patents) or unregistered (e.g., copyright), are inherently territorial (Peukert, 2012, p. 189). This means no intellectual property right is protected in a universally uniform manner worldwide (Peukert, 2012, p. 189). Instead, under the Berne Convention, all works expressed in tangible form are protected, but the extent of protection is determined by the laws of each country where protection is sought (Berne Convention, 1886). For instance, within the European Union, the single market aims to create a unified economic space without national borders, suggesting a degree of uniformity across member states. The latter means the rights are limited in their scope and effect to the territory of the state under the laws of which they've been granted (Dreier, 2017). However, intellectual property rights remain governed by the territoriality principle, meaning these rights are limited in scope and effect to the territory of the state under whose laws they were granted. Similarly, in the United States, the Copyright Act of 1976 reinforces the principle of territoriality in copyright protection. This framework creates challenges for intellectual property creators, particularly in the digital age. Works accessible online, unrestricted by geographical borders, cannot enjoy uniform protection and are subject to the limitations of territorial laws. This imbalance places creators at a disadvantage, as their rights are constrained by the territorial nature of intellectual property protections, which fail to align with the global accessibility of their works. Addressing this disparity requires a nuanced understanding of the territoriality principle and its implications in cross-border intellectual property disputes.

The history of intellectual property rights is deeply intertwined with the principle of territoriality, which is widely regarded as a foundational aspect of these rights (Oke,

2018, p. 315). As some scholars note, the origins of copyright can be traced back to the 15th century, where protection privileges were explicitly limited to the specific territory under a sovereign's control (Oke, 2018, p. 316). The modern intellectual property system, including its current international framework, evolved in alignment with this principle of territoriality (Oke, 2018, p. 316). With the rapid growth of international business operations and easier global access to data during the 19th century, the first multilateral treaties governing international intellectual property law were introduced: the Paris Convention for the Protection of Industrial Property (Paris Convention) in 1883 and the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention) in 1886. While these conventions were pioneering international legal instruments, addressing industrial property and copyright, respectively, they retained the principle of territoriality within the modern legal framework. This principle allowed each member state's national laws to adapt to the minimum standards set by these international treaties while leaving areas not expressly governed by the treaties to the discretion of individual states. This dual approach has continued to shape the interplay between international legal instruments and national frameworks in intellectual property law, preserving territoriality as a cornerstone of the system territoriality principle and its implications in cross-border intellectual property disputes (Tang, 2024).

Almost a century later, the Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) of 1994 was introduced. Unlike the Paris and Berne Conventions, the TRIPS Agreement established certain minimum standards that member states were required to incorporate into their national legal systems. However, it also allowed for some flexibility, enabling member states to adapt their national laws according to their level of development, similar to the approach of the Berne Convention. This flexibility reflects the intention to balance the establishment of uniform standards with the need for individual states to tailor their legal frameworks to their specific circumstances and developmental capacities. While the TRIPS Agreement introduced more comprehensive minimum standards, it retained the principle of territoriality and provided member states with the discretion to adapt their national laws. This ensured that each state could incorporate international standards in a manner that aligned with its legal traditions and capacities, further underscoring the enduring influence of territoriality in the international intellectual property law framework.

The territoriality principle, as originally introduced in historical intellectual property norms and later codified in the Berne Convention, reflected the realities of its time. However, those realities have evolved significantly since the convention's adoption. When

the Berne Convention was established, the internet was not yet accessible to the public as it is today, and cross-border trade in tangible goods was far less extensive. Additionally, the trade and accessibility of intangible intellectual property goods were far more limited and complex compared to the seamless global exchange of today. As a result, the enforcement of intellectual property laws in cross-border disputes did not hold the same level of significance as it does in the modern era, where globalization and digital technologies have fundamentally transformed the intellectual property landscape.

One of the most notable examples illustrating the challenges of enforcing intellectual property rights in 1842 is a quote from the renowned UK author Charles Dickens, who lamented the problem of piracy and the illegal distribution of his works: "I am the greatest loser alive by the present law" (BBC News, 2012). This statement, though made long before the adoption of the Berne Convention, highlights the difficulties faced by right holders in protecting their works across borders. At that time, to claim and enforce copyright protection in cross-border matters, a right holder had to seek protection individually in each jurisdiction where enforcement was desired. Although significant progress has been made since then, the fundamental issues of cross-border enforcement remain relevant today, albeit on a much larger scale. The introduction of major international intellectual property law instruments, such as the Berne Convention, has provided a framework for governing cross-border relationships. However, these instruments, conceived nearly two centuries ago, now face challenges in addressing the complexities of modern-day global intellectual property disputes, amplified by digital technologies and globalization.

Today's global use of copyrighted works has evolved significantly. The expansion of global trade, the digital economy, and the ease of access to information, largely unaffected by territoriality, have transformed the landscape of international intellectual property law, including copyright law. Alongside the global distribution of intellectual property works, cross-border disputes have become increasingly prevalent, involving issues such as infringements and contractual obligations across multiple jurisdictions. In this context, the principle of territoriality, combined with the cross-border distribution of works created with or "by" AI technologies, has introduced significant complexity and uncertainty for authors. The current legal framework does not sufficiently address the realities of international distribution, leaving gaps in protection and enforcement on a global level. The concepts of existence and transferability are fundamental to the structure of intellectual property law, particularly copyright. These concepts determine not only what qualifies for protection but also how those rights can be utilized or enforced by

rightsholders. This issue is especially critical in the context of outputs generated using AI technologies, where traditional principles of authorship and originality are being reconsidered. This uncertainty underscores the urgent need to address the legal treatment of works created using AI through mechanisms within private international law. In particular, the choice of law instrument must be examined to understand how existing international copyright law frameworks can adapt to the challenges posed by AI in creative processes. Such an approach should aim to reflect the interconnected nature of today's world and provide a balanced solution that aligns diverse national legal systems, private international intellectual property law principles, and the rights of authors involved in the creation of works using AI technologies.

Despite the long-established foundation of the territoriality principle, its appropriateness has increasingly become a subject of debate. Given the inherently international nature of intellectual property objects, many scholars argue that the territoriality principle no longer reflects the realities of the modern world and may be considered outdated. The current application of this principle in international intellectual property law often creates significant obstacles to effective cross-border dispute resolution (Kono and Jurcys, 2012, p. 22). This issue is particularly pronounced when disputes involve digital content accessible online, where the territoriality principle fails to align with the global nature of such intellectual property assets. While intellectual property law is intended to balance the private rights of authors with the public interest, the territoriality-based approach to cross-border disputes prioritizes the sovereignty of states over the rights of private parties. This imbalance highlights the vulnerabilities faced by private actors under the current regime, as the territoriality principle does not provide a robust mechanism for equitable resolution in cross-border intellectual property disputes.

Another critical point of the territoriality principle is the lack of clarity regarding its applicability to specific issues in intellectual property law. While there is general consensus that the law of the protecting country governs matters such as validity, registration, and infringement, ongoing debates question whether it should also apply to issues like initial ownership, remedies for infringement, and the transferability of intellectual property rights (Kono and Jurcys, 2012, p. 23). These uncertainties contribute to inefficiencies in the territoriality-based framework, particularly in copyright law. In the context of works created using AI technologies, these inefficiencies and uncertainties become even more pronounced. The lack of clear legal guidance on whether and how copyright protections apply to works created using AI tools exacerbates the challenges of resolving cross-border disputes and ensuring legal certainty. As a result, the territoriality principle, while

foundational, appears increasingly inadequate for addressing the complexities of modern intellectual property relationships.

2.2. Soft Law Instruments in the Context of Existing International Copyright Law Framework

In addition to international conventions, several soft law tools have been developed as complementary instruments to the existing framework. These include the CLIP Principles (Principles for Conflict of Laws in Intellectual Property, 2011), the ALI Principles Governing Jurisdiction, Choice of Law, and Judgments in Transnational Disputes (adopted by the American Law Institute in 2008), and the Kyoto Guidelines (adopted by the International Law Association in 2020). While these proposals generally adhere to the foundational territoriality principle to some extent, it is noteworthy that some academics involved in the development of the ALI and CLIP principles have suggested the potential for creating an intellectual property regime that is not grounded in the territorial notion of IP rights, if it were to be designed from the ground up (Basedow, Kono, and Metzger, 2010).

The Principles Governing Jurisdiction, Choice of Law, and Judgments in Transnational Disputes, introduced by the American Law Institute (ALI Principles), represent legislative initiatives in the United States. These Principles are designed to complement the existing international legal framework, including international copyright law, with a particular focus on their applicability to judicial processes within the US. Notably, the ALI Principles were the first institutional initiative aimed at building a uniform approach to conflict-of-law rules in intellectual property law matters (The American Law Institute, 2008). These Principles adopt a tailored approach to private international law issues, with specific attention given to the choice of law provisions relevant to the subject matter of this work.

The soft law mechanism advocated by the ALI Principles emphasizes a territorial-based approach, highlighting its applicability in domestic judicial proceedings to ensure that choice of law rules align with the foundational requirements of intellectual property rights. For instance, disputes related to copyright validity are to be governed by *lex loci protectionis* under the Principles. For ownership-related disputes, *lex loci protectionis* is also considered the general rule. However, the Principles introduce an alternative, the *lex domicilii* principle, applicable in international contexts, such as when works are distributed

globally or when multiple creators from different jurisdictions are involved. The language in the ALI Principles refers to the "residence" of the defendant rather than "habitual residence," potentially leading to differing practical outcomes in judicial proceedings (Jurcys, 2012). In matters of infringement or limitations on copyright protection, the Principles propose applying the law of the country where the infringement occurred, thus adhering to the lex loci protectionis rule. For transferability issues, the Principles prioritize the party autonomy principle, allowing parties to select the governing law in their agreements. However, the ALI Principles account for exceptions to lex loci protectionis when its application might undermine the territoriality principle in intellectual property law. For example, if the national law of the selected jurisdiction imposes specific formal requirements for the assignment of rights or moral rights, lex loci protectionis will prevail (The American Law Institute, 2008). This dual approach respects both party autonomy and the territorial nature of copyright law. Despite offering guidance aimed at fostering uniformity in choice of law rules, the ALI Principles fall short of providing a feasible solution for copyright disputes involving works created with AI technologies. The Principles remain grounded in a traditional understanding of copyright law and were originally designed to complement the then-current legal framework. However, they lack the novel approaches needed to address the unique challenges posed by AI-based technologies in the international private law arena. Consequently, while the ALI Principles contribute to clarifying traditional copyright issues, they do not sufficiently account for the complexities introduced by AI in creative processes.

The Principles for Conflict of Laws in Intellectual Property (CLIP Principles), developed by the European Max Planck Group on Conflict of Laws in Intellectual Property in 2011, are a comprehensive set of soft law guidelines aimed at addressing choice of law issues in international intellectual property disputes⁸. Introduced after the publication of the ALI Principles, the CLIP Principles were designed to complement the existing international intellectual property framework, including copyright law, with a specific focus on cross-border judicial proceedings within the European Union (Jurcys, 2012). The CLIP Principles seek to harmonize private international law in intellectual property matters while respecting the territorial nature of intellectual property rights. They offer a structured approach to resolving disputes by addressing key aspects such as applicable law, and enforcement mechanisms across multiple jurisdictions. In doing so, the Principles aimed to respond to the challenges posed by globalization and the increasingly transnational nature of

_

⁸ The choice of law provisions outlined in the CLIP Principles will be examined within the scope of this thesis.

intellectual property disputes, providing a coherent framework to guide judicial decision-making.

At their core, the CLIP Principles remain rooted in the traditional principle of territoriality, similar to the ALI Principles. However, they introduce distinctive rules to accommodate the evolving complexities of intellectual property law in a globalized era. For instance, the law of the forum (or lex fori) is established as the law governing procedural matters, which is determined by the law of the state where the court is located (European Max Planck Group..., 2011). This contrasts with the ALI Principles, which place greater emphasis on harmonizing substantive laws across jurisdictions. Lex protectionis is identified as the applicable law for the existence, validity, registration, scope, and duration of intellectual property rights, as well as all other matters concerning the rights themselves. Additionally, the CLIP Principles establish freedom of choice, promoting the principle of party autonomy by allowing parties to select the applicable law in specific cases, including contractual agreements and remedies. This approach is consistent with the ALI Principles' emphasis on party autonomy. However, when no choice of law provision exists in a contract, the *lex domicilii* is applied, with habitual residence recognized as a key factor for general jurisdiction. This notion diverges from the Brussels I Regulation, which refers to the "domicile" of the defendant. The CLIP notion of "habitual residence" was influenced by Article 19(1) of the Rome I Regulation (Jurcys, 2012, p. 178). Noticeably, Article 3:502 identifies lex domicilii as one of the applicable rules in the absence of a choice of law but not the only one. The applicable law may also be determined by the law of the party performing the characteristic obligation of the contract, such as the licensor in a licensing agreement. Specific provisions apply to contracts that deviate from general norms, depending on the type of intellectual property agreement (e.g., licensing, assignment, or joint creation agreements). Additionally, if the contract has a closer connection to another jurisdiction, the law of that jurisdiction may override the default rule. Lex fori, or mandatory laws of the forum, as well as laws protecting weaker parties may also take precedence over general default rules (European Max Planck Group..., 2011). The objective of the CLIP Principles is to promote consistency and predictability in the application of intellectual property law across jurisdictions. By suggesting specific choice of law rules, aligning national legal systems with international norms is promoted and the Principles strive to ensure a balanced and efficient resolution of intellectual property disputes within the European Union, addressing the unique challenges posed by modern technologies and global markets.

The Kyoto Guidelines on Intellectual Property and Private International Law, analyzed in the scope of this work, provide guidance for international private law mechanisms concerning applicable law and choice of law rules. Prepared by experts from multiple regions, these Guidelines offer a universal and flexible approach compared to earlier localized instruments such as the CLIP Principles and ALI Principles (The Editors of the EAPIL blog, 2021). Specifically designed for an international audience, the Guidelines provide broader, more adaptable guidance to address the specific complexities of intellectual property law in cross-border disputes. The Kyoto Guidelines propose a nuanced approach, recommending multiple rules tailored to different aspects of intellectual property law. For issues of existence, scope, and validity of copyright, lex loci protectionis, or the law of the state for which protection is sought, is the general rule (ILA, 2020). For initial ownership and transfer of rights, the applicable law is the one most closely connected to the creation of the work, typically presumed to be the habitual residence of the creator at the time of creation (ILA, 2020). Two exceptions to this closest connection rule are outlined. First, in cases of collaborative works created by multiple authors, the authors may choose the law of one of their habitual residences. Second, when national laws prohibit the transfer of rights due to public policy, the lex loci protectionis rule takes precedence. For contractual issues, the Guidelines emphasize party autonomy, allowing parties to choose the governing law as long as this choice does not deprive creators of their fundamental right to copyright protection. Where no explicit choice of law is made, more protective provisions favoring the creator should prevail. For contracts involving multiple states, the law with the closest connection to the contract applies. Unlike the closest connection principle for ownership, the applicable law for contracts may be determined based on the common habitual residence of the parties or the habitual residence of the party responsible for the contract's performance. In the case of infringement disputes, the Guidelines adhere to lex loci protectionis as the general rule. However, for cross-border disputes involving multiple jurisdictions, Guideline 26 introduces a novel approach, suggesting the application of the law of the state most closely connected to the infringement. This is determined by factors such as the state where substantial harm occurred, the habitual residence of the parties, or the state where significant activities facilitating the infringement took place.

The Kyoto Guidelines balance the territorial foundation of intellectual property law with the complexities of multi-state disputes. They uphold *lex loci protectionis* for proprietary aspects of intellectual property and promote party autonomy for contractual matters. At the same time, the Guidelines address cross-border challenges by introducing tailored mechanisms for disputes involving multiple states. By respecting public policy and

mandatory national provisions, the Guidelines ensure a balance between national sovereignty and the interests of private parties, promoting legal certainty in copyright-related issues. Their universal and flexible nature makes the Kyoto Guidelines a significant contribution to the evolving landscape of international intellectual property law.

The examined soft law instruments: a) the ALI Principles; b) the CLIP Principles; and c) the Kyoto Guidelines; demonstrate diverse approaches to addressing private international law issues regarding applicable law in intellectual property, including copyright disputes. These instruments were developed to provide a more coherent framework for resolving cross-border disputes and to complement existing international conventions. However, judicial proceedings have not successfully relied on the recommendations proposed by these soft law tools, which limits their practical application in resolving disputes (Jurcys, 2012). While the legislative proposals were drafted with the goal of streamlining the adjudication of multi-state IP disputes, the differing approaches among these instruments reflect variations in their intended scope and target audience. For instance, the ALI Principles focus primarily on the US judicial system, whereas the CLIP Principles reflect the European Union intellectual property law framework, and the Kyoto Guidelines offer more universal and flexible guidance aimed at an international audience. These differences highlight how the addressees of each instrument influence their design and implementation (Jurcys, 2012, p. 220). Despite their aim to clarify conflict-of-law rules, these instruments reveal the challenges of harmonizing international copyright law. The diverse approaches underscore the need for further exploration and adaptation of international private law mechanisms to address modern challenges, such as those posed by works created using AI technologies. While these tools provide valuable guidance, they fall short of delivering a comprehensive solution to the complexities of cross-border copyright disputes in the evolving landscape of intellectual property law. Therefore, particular choice of law principles must be examined to find a feasible approach to the copyrightability and authorship of works generated using AI tools. One of the primary questions that must be analyzed in such multi-state disputes relates to the nature of the copyright right at stake (whether IP rights exist, who is the legitimate right-holder of the IP rights and what are their content and limitations) (Kono and Jurcys, 2012, p. 169).

2.3. Lex Loci Protectionis as The Choice of Law Principle

Lex loci protectionis, or the law of the place where protection is claimed, is a foundational principle in international intellectual property law (O'Halpin, 2022, p. 553). It dictates that the protection and enforcement of intellectual property rights are governed by the laws of the country where protection is sought. Some authors argue that in cases of conflict of law, the *lex loci protectionis* principle aligns most closely with the essential nature of intellectual property rights (Kur, Maunsbach, 2019, p. 48). For instance, the principle ensures that a registered intellectual property right, such as copyright, is governed by the laws of the country where it is registered; consequently, the same national laws shall govern the legal relationships related to that right. While this alignment highlights the practical advantage of lex loci protectionis, the principle becomes less straightforward when protection is sought outside the country of registration. In such cases, the territoriality principle does not inherently offer guidance for resolving cross-border disputes, as it is limited to substantive law. This creates a reliance on private international law mechanisms to address conflict-oflaw issues. Importantly, the territoriality principle does not preclude adopting alternative choice of law approaches that might better suit specific circumstances (Kur, Maunsbach, 2019. Thus, while foundational to intellectual property law, the territoriality principle allows for flexibility, enabling lawmakers to explore mechanisms that strike a balance between respecting national sovereignty and providing legal certainties. In contractual matters, for example, parties may choose the applicable law, such as in licensing agreements, to bypass potential conflicts. However, such party autonomy is insufficient to address the broader challenges of harmonization in cross-border disputes, where a unified approach is absent. This underscores the need for a more consistent mechanism, particularly in copyright disputes involving complex international dimensions. The absence of such a framework perpetuates legal uncertainty, especially in cases involving the application of lex loci protectionis.

According to the current international legal framework applicable to copyright law, the *lex loci protectionis* principle is recognized, though its interpretation is not universally established as a mandatory choice of law principle. Article 5(2) of the Berne Convention states that "...the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed exclusively by the laws of the country where protection is claimed" (Berne Convention, 1886). This article can be interpreted to suggest

⁹ The provided example pertains specifically to copyright in the United States, where registration is a formal requirement, unlike in the European Union, where such registration is not mandated.

that the principle of enabling a choice of law mechanism, particularly the lex loci protectionis, applies as the law of the country where copyright protection is sought, making it the applicable law for the subject matter. However, the article does not impose a mandatory choice of law rule, nor does it create a binding international mechanism for resolving conflicts of law. Instead, it ensures non-discrimination for foreign copyright holders seeking protection in a foreign country (Berne Convention, 1886). The principle is implied in Article 5(2), as it provides that the exercise of copyright rights is governed exclusively by the laws of the country where protection is claimed. Within the EU, the Rome II Regulation reflects this principle in Article 8(1), aligning with the Berne Convention. Notably, this provision is applicable solely to non-contractual obligations arising from intellectual property right infringements, consistent with the purpose of Rome II, which governs only non-contractual matters within the EU (Rome II Regulation, 2007). In contrast, under the US federal legal framework, there is no explicit or implied choice of law principle endorsing the lex loci protectionis (US Copyright Act, 1976). The Copyright Act, one of the primary federal-level documents addressing copyright, does not explicitly define or support the suitability of this principle, either directly or indirectly.

The *lex loci protectionis* principle emphasizes the sovereignty of national legal systems, suggesting that applying national law in domestic courts provides greater benefits by avoiding the complexities of enforcing foreign law (as opposed to the *lex originis* principle). This ensures that the local legal framework can address the specific needs of the forum state, particularly when the infringement occurs within its jurisdiction. Conversely, applying foreign law under the *lex originis* principle might undermine national sovereignty by requiring domestic courts to apply laws from other jurisdictions, even when the infringement occurs domestically and has a closer connection to the forum state. However, relying solely on the *lex loci protectionis* principle is not without limitations. While it simplifies the process within a single jurisdiction, it fails to address the broader challenge of achieving a uniform and harmonized legal approach across different jurisdictions. This creates a significant issue of legal uncertainty, as highlighted in court disputes where the *lex loci protectionis* principle is most commonly applied (Kono and Jurcys, 2012, p. 175).

2.4. Lex Originis As the Choice of Law Principle

The Latin term "lex originis", meaning the law of the country of origin, is often presented as the opposite of lex loci protectionis (van Eechoud, 2003, p. 119). Within the realm of copyright law, the concept of "country of origin" plays a pivotal role in determining key aspects of intellectual property protection. First, it establishes eligibility for protection under international intellectual property conventions (van Eechoud, 2003, p. 119). For instance, a work must originate from a member state of an international copyright treaty, such as the Berne Convention, for the creator to benefit from the principle of national treatment, which ensures their creations receive the same protection as domestic works in other member states. ¹⁰ Second, it facilitates mutual recognition of rights protection between states. Provisions in the Berne Convention, such as Article 7(8), link the duration of copyright protection to the term in the work's country of origin (van Eechoud, 2003, p. 119). Similarly, Articles 2(7) and 14ter establish protections for designs and resale rights based on recognition in the country of origin, demonstrating the need for some level of harmonization in copyright protections across jurisdictions. The country of origin is also significant in fostering reciprocal rights on a national level, enabling smoother interaction between different jurisdictions (van Eechoud, 2003, p. 119). For example, in Great Britain, choice of law rules concerning intellectual property emphasize legal certainty for acquirers and third parties regarding the status of intellectual property rights ((van Eechoud, 2003, p. 120). The place of origin, often considered the place of first publication, is viewed as where the author anticipates the most success or feels their work will be most appreciated, making it a natural anchor for establishing legal attachment (van Eechoud, 2003, p. 119).

Despite its foundational role, only a limited number of scholars argue that the Berne Convention explicitly endorses *lex originis* as the governing principle for most or all copyright related issues (van Eechoud, 2003, p. 119). Advocates of this approach emphasize the country of first publication as a key feature within the Berne Convention's system of protection, arguing that it logically extends to choice of law rules. The Convention's recognition of the place of first publication underscores its importance in the international copyright system, lending weight to arguments for its adoption as a choice of law rule. Critics, however, contend that Article 5(2) of the Berne Convention is better interpreted as a non-discrimination principle rather than a genuine conflict-of-law provision (Kur, Maunsbach, 2019, p. 49). Under this interpretation, countries retain the discretion to

¹⁰ The principle of national treatment is established in Article 5(1) of the Berne Convention.

apply their own choice of law rules as long as they do so consistently for both national and foreign works. This flexibility permits a country to adopt *lex originis* as the governing law in copyright disputes, provided it aligns with national legal norms and practices.

Another argument supporting the *lex originis* principle is the notion of the universal nature of copyright, which is seen as less bound to the territoriality principle compared to other intellectual property rights. For example, if a work is first published in the United States, initial ownership and copyright protection would be governed by US copyright law. Once the formal requirements of other jurisdictions are satisfied, the work gains global protection under international treaties, even though it originates from the United States (Kur and Maunsbach, 2019, p. 49). This perspective underscores the limitations of a strictly territorial approach, which can undermine legal certainty for creators navigating multijurisdictional frameworks. French courts provide an example of *lex originis* in practice, frequently applying the law of the country where a work was first published to determine the applicable legal framework (Kono and Jurcys, 2012, p. 175). This approach simplifies legal processes by focusing on the origin of the work, offering creators greater predictability and harmonization in copyright protection. Consequently, while the *lex originis* principle is not universally adopted, it presents a compelling alternative to territoriality for addressing the complexities of cross-border copyright disputes.

2.5. Lex Domicilii As the Choice Of Law Principle

In conflict of laws, the doctrine of *lex domicilii* typically refers to the law of the country that is considered a person's domicile, meaning the country where they reside (Uddin et al., 2024, p. 15510). This principle is considered to identify the legal connection between a person and his domicile place (Uddin et al., 2024, p. 15511). To understand the implications of applying the *lex domicilii* principle as a choice of law rule, it is essential to examine how habitual residence is determined. In current soft law guidelines, particularly the ALI and CLIP Principles, the definition of "habitual residence" is formulated in a similar manner (Jurcys, 2012, p. 176). For natural persons, habitual residence is identified as the state where the individual habitually resides or maintains significant professional or personal connections. The determination is made based on either professional or personal ties to a location. Additionally, the CLIP Principles specifically address the influence of business activities by stating that the habitual residence of a natural person engaged in business activities shall also be considered their principal place of business for matters related to those activities (Jurcys, 2012, p. 176). For legal persons, habitual residence is determined

based on any of the following criteria: the state where the entity has a formal registered address; the state of incorporation or formation (including the location of its central administration); or the state where its principal place of business is maintained. Since the CLIP Principles were created within the EU, the concept of "habitual residence" aligns with the framework established in Rome Regulation I and Rome Regulation II, where *lex domicilii* serves as a basis for general jurisdiction II (Jurcys, 2012, p. 178).

Uncertainty can arise in scenarios where the specific domicile must be applied. One approach to attaching domicile to a person is through the domicile of origin, assigned at the beginning of their existence, such as at birth for a natural person (Uddin et al., 2024, p. 15512). However, the determination of habitual residence, based on the then-current domicile or the factual location where professional or personal connections exist, could be more favorable in cross-border matters. This approach would offer flexibility for authors of creative works, allowing their domicile to adapt to their current circumstances. Such a system would promote flexibility. On the other hand, international law prohibits a person from holding two domiciles simultaneously (Uddin et al., 2024, p. 15512). This restriction can create challenges, as a person involved in different disputes may argue for different habitual residences depending on the specific circumstances. This inconsistency, if not addressed, could introduce complexities on a global level, potentially undermining the goal of achieving legal certainty. Consequently, addressing these issues on an international scale is essential to prevent further complications in cross-border intellectual property matters

On the other hand, applying the laws of other countries based on the habitual residence of the author, such as the law of the state where the author resides, does not necessarily establish a close and relevant connection to the work in question. Protection for the work often has a more direct and logical association with the country where it is registered or where the protection is sought. Consequently, applying the laws of the author's habitual residence might not guarantee adequate protection for the work, as the suggested jurisdiction may not provide the required legal framework or enforce the protections relevant to the intellectual property in question.

INTERIM CONCLUSIONS II

1. The territoriality principle remains a cornerstone of national and international intellectual property law. However, a fixed territorial approach to choice of law issues struggles to accommodate the realities of global trade, digital technologies, and cross-

border accessibility, exposing inefficiencies in addressing cross-border intellectual property disputes, particularly in the digital and AI-driven landscape. While the territoriality principle is foundational, its limitations necessitate the exploration of alternative frameworks or mechanisms that better align with the global and digital nature of intellectual property.

- 2. Soft law tools such as the ALI Principles, CLIP Principles, and Kyoto Guidelines offer complementary approaches to resolving cross-border copyright disputes, reflecting differing scopes and audiences. These instruments explore more flexible mechanisms, such as party autonomy and habitual residence, to address multi-jurisdictional disputes. However, none fully tackle the novel complexities posed by works created using AI tools, highlighting the need for further development in this area.
- 3. Lex loci protectionis dictates that the laws of the country where protection is sought govern intellectual property rights, reinforcing the territoriality principle. International instruments like the Berne Convention acknowledge lex loci protectionis but do not mandate its use, allowing for alternative approaches. While this principle simplifies application within a single jurisdiction, it lacks mechanisms to promote harmonization or ensure legal certainty in cross-border contexts.
- 4. Lex originis ties the applicable law to the country where the work was created, emphasizing the importance of the country of origin. Some scholars argue that lex originis aligns with the universal nature of copyright, particularly in an era where creative works are distributed and accessed globally. While it presents a compelling alternative to territoriality, its broader adoption would necessitate resolving inconsistencies in interpretation and application.
- 5. Lex domicilii ties the applicable law to the author's habitual residence, offering flexibility by linking the applicable law to the author's domicile. However, applying the law of the author's habitual residence may not always provide sufficient protection, particularly for works more closely connected to other jurisdictions. Addressing the legal uncertainties of *lex domicilii* requires a harmonized international approach to its determination, especially in cross-border disputes.

3. COPYRIGHTABILITY OF OUTPUTS GENERATED WITH AI TOOLS: CHOICE OF LAW APPROACHES

3.1. Lex Loci Protectionis

As highlighted earlier in the thesis, the principle of *lex loci protectionis*, meaning the law of the place where protection is sought, is a foundational rule in international intellectual property law. It dictates that the protection and enforcement of intellectual property rights are governed by the laws of the jurisdiction where those rights are claimed. This principle reinforces the territoriality of intellectual property rights, ensuring that disputes are resolved under the domestic laws of individual states. While *lex loci protectionis* simplifies conflict-of-law issues by rooting them in territorial jurisdictions, it prioritizes national sovereignty over cross-border consistency (O'Halpin, 2022). This often leads to discrepancies in legal outcomes, particularly in multi-jurisdictional contexts. Under this principle, protection is determined independently by the laws of each country where enforcement is sought. This independence fosters fragmentation, leaving creators vulnerable to inconsistent protections across borders.

Let us analyze **Hypothetical Scenario** #1, where a single AI tool is used multiple times to achieve the final output. In this scenario, we examine two hypothetical jurisdictions. In Country A, the national framework recognizes AI-assisted outputs as eligible for copyright protection if the creator demonstrates significant human involvement in the creative process. Conversely, Country B excludes works generated with substantial reliance on AI from protection, regardless of the level of human input. Under the principle of *lex loci protectionis*, the laws of each country independently govern the copyrightability of the work. If protection is sought in Country A, the work is protected because the laws prioritize human involvement, assuming it meets the authorship requirement. However, if protection is sought in Country B, it is denied due to the strict interpretation of human authorship, which excludes works heavily reliant on AI. This situation highlights a significant limitation of lex *loci protectionis*: it creates a fragmented protection framework, leaving the author unable to enforce their rights in Country B despite recognition in Country A. The author benefits from legal certainty in Country A but faces an unfavorable position in Country B, where copyright protection is denied.

In the same hypothetical scenario, the outcomes under the current national copyright laws of the United States and the European Union, both of which present unique challenges, will be explored. In the United States, copyright protection for works created using AI tools is typically denied due to an established precedent that requires human

authorship. Legislators in the US maintain a strict position, rejecting the notion that work created using one AI tool, regardless of human input, qualifies for protection. As a result, if protection is sought in the US, the author faces legal certainty but cannot obtain copyright protection. This lack of protection makes works distributed in the US vulnerable in terms of their economic value, as the national law explicitly excludes works created with AI from copyright eligibility. In contrast, the European Union presents a more uncertain landscape. Although EU copyright laws also emphasize human involvement in the creative process, the determination of what constitutes "significant" human input remains undefined. Consequently, outcomes in the EU depend heavily on the approach of the specific court hearing the case. Courts must assess whether the level of human involvement in the creation process is sufficient to qualify the work for copyright protection. This uncertainty leaves creators unsure about the feasibility of their claims.

The application of *lex loci protectionis* in this hypothetical scenario demonstrates its limitations. While it provides legal certainty by applying local laws, the fragmented nature of international copyright regimes means creators face different outcomes depending on the jurisdiction. In the US, legal certainty exists but at the expense of protection, while in the EU, uncertainty prevails due to varying interpretations of human involvement. This fragmented framework complicates the economic and legal security of AI-assisted works and underscores the need for harmonized international standards to address the challenges posed by content created using AI tools.

In Hypothetical Scenario #2, the artist uses multiple AI tools to generate text, visuals, and other elements, combining these outputs with traditional methods like hand-drawn illustrations. The resulting work is complex, blending AI-assisted and human-created components. The artist seeks copyright protection in two jurisdictions: (i) Country C, which recognizes hybrid works as copyrightable, and (ii) Country D, which requires the majority of the creative process to be manual for a work to qualify for copyright protection, excluding works heavily reliant on AI. Under *lex loci protectionis*, Country C protects the work because it accounts for hybrid methods, recognizing both AI and human contributions. However, Country D denies protection, as its laws require manual dominance in the creative process. This divergence in outcomes highlights the territorial inconsistencies inherent in *lex loci protectionis*, preventing the author from securing uniform protection across jurisdictions.

Furthermore, consider a scenario involving multiple jurisdictions. For example, an author creates a work in Country A, and one party commits multiple infringements of the content in Countries A, B, and C. If *lex loci protectionis* is applied, the case would need to

be heard in three different forums because the author seeks enforcement in three distinct jurisdictions. If Countries A, B, and C have different approaches to the copyrightability of works created with AI technologies, this could result in three completely different outcomes for the same dispute. Such outcomes would arise due to the current discrepancies in national legal frameworks.

Another disadvantage of *lex loci protectionis* is the lack of legal certainty it provides to authors, particularly regarding intentional actions that could lead to more favorable outcomes. Under this principle, authors lack control over ensuring the copyrightability of their work on a global scale, as the approach to copyrightability differs in every jurisdiction. This fragmentation results in inconsistent and unpredictable outcomes (IIPRD, 2024). Moreover, the determination of the applicable jurisdiction where protection is sought could also lead to a complex problem, particularly when identifying the country "where protection is sought" (O'Halpin, 2022). This includes scenarios where works are distributed and accessed digitally, making it difficult to determine where the author wants to seek protection for their work. In some cases, it would require identifying the party that committed the infringement of such digital content, and this may not always be successfully achieved. Furthermore, if the infringement itself occurs in the digital domain and the author manages to locate the country in which they seek to enforce copyright protection, enforcement could face additional issues. It might either be inconsistent with territoriality, as declining infringing content worldwide would contradict the territorial nature of copyright, or enforcement may not be allowed due to the proprietary rights not being feasible with the specific country's copyrightability criteria and authorship requirements.

On the other hand, while the current legal framework remains uncertain and inconsistent, the application of *lex loci protectionis* could promote a more proactive approach that encourages national laws to adapt to the realities of outputs. For instance, if a country establishes a proactive legal framework recognizing authorship for works created using AI tools, it would automatically become a more favorable jurisdiction for business operations. This would primarily be influenced by the higher economic value of such creative works compared to countries where copyright protection is not granted. In this way, both authors and creators would benefit from not only a certain but also a favorable legal framework. Additionally, this could encourage different states to accelerate the process of establishing clear legal frameworks, fostering a more rapid and proactive approach to addressing the challenges posed by works created using AI tools. Despite these flaws, particularly in multi-jurisdictional issues, the Kyoto Guidelines specifically provide that *lex loci protectionis* is applicable to matters concerning copyright right itself, including

the existence, validity, registration, duration, transferability, and scope of intellectual property rights. While this principle reflects the traditional territorial nature of copyright law, its limitations underscore the need for a more harmonized international approach to address modern challenges, particularly those arising from AI generated outputs.

Table 1. Analysis of *lex loci protectionis* as a choice of law principle for copyrightability of outputs generated with AI tools

| Advantages | Disadvantages |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Allows rights holders to focus on securing protection in specific, economically significant jurisdictions | Results in fragmented protection across jurisdictions, with authors facing conflicting outcomes in different countries |
| Ensures clear application of national laws within specific jurisdictions | Fails to account for the global distribution and accessibility of works created using AI tools promoting legal uncertainty |
| Might promote the adoption of national legal frameworks that ensure certainty, enhance economic value, and attract businesses to AI-friendly jurisdictions. | Increases costs and complexity for creators seeking protection in multiple jurisdictions |
| | Does not address harmonization or uniformity across jurisdictions, perpetuating legal uncertainty |

Source: compiled by author based on comparative analysis.

3.2. Lex Originis

Lex originis as the choice of law rule determining applicable law for copyright disputes suggests that applicable law is applied based on the country of origin of the work. Lex origins as the choice of law rule, in relation to Hypothetical Scenarios #1 and #2 will be examined.

Firstly, in Hypothetical Scenario #1, the law of the country of origin will apply, regardless of where protection is sought or which forum adjudicates the case. This approach contrasts with the territorial nature of intellectual property rights, as applying one country's law across multiple jurisdictions promotes a universal approach to copyright law. This perspective is supported by the so-called "universalism" theory, which posits that copyright

is inherently universal rather than territorial (Kur & Maunsbach, 2019, p. 54). Additionally, it aligns with the Berne Convention, which mandates protection across member states without requiring registration or formalities. Applying *lex originis* allows for the universal application of copyright laws, covering proprietary aspects and enabling cross-border enforcement mechanisms. This approach promotes consistency and a unified framework for resolving copyright disputes.

In Hypothetical Scenario #2, where multiple tools, including AI-based and traditional methods, are used, the country of origin would need to evaluate the role of each tool and the level of human involvement to determine if the work satisfies copyrightability criteria and establishes authorship. In jurisdictions like the US, where works created with AI tools are typically excluded from copyright protection, the use of mixed methods could increase the likelihood of recognition, especially since such cases might lack precedent. This would allow the forum state to analyze whether the human contribution constitutes significant involvement. This approach could lead to outcomes more similar to those under current EU regulations, which assess copyrightability based on human involvement. However, the final decision would still be subject to the laws and interpretations of the forum state, making the outcome dependent on the originating country's legal framework and its alignment with copyright standards.

In multi-state disputes, the *lex originis* principle mitigates the fragmentation of outcomes that would likely occur under *lex loci protectionis*. For instance, in the hypothetical scenario where the author seeks to enforce rights in Countries A, B, and C, each of which has inconsistent approaches to recognizing authorship for outputs, applying one singular applicable law ensures consistent decision-making. Even in cases where the dispute is brought to different courts based on the defendant's domicile, the outcome would remain consistent due to the application of the law from the country of origin.

However, while *lex originis* may promote outcome consistency, it does not necessarily eliminate legal uncertainty. This is because, as highlighted in the hypothetical scenarios, the determination of whether a work satisfies copyrightability criteria, including validity, still depends on the national framework of the country of origin. The choice-of-law mechanism itself does not address the underlying question of how copyright laws in the country of origin approach works created using AI-assisted tools.

Legal certainty, therefore, may not always be ensured under this principle. If the national legal framework of the country of origin fails to provide clear rules on the copyrightability of AI-assisted works, the outcome of the dispute will ultimately depend on how the country's laws interpret and apply the relevant criteria.

Another disadvantageous criterion that leads to a complex problem is the determination of the country of origin. This issue is particularly challenging for digital works created across multiple jurisdictions without physical location constraints, making it difficult to identify a single jurisdiction to govern the matter (O'Halpin, 2022). For instance, in Hypothetical Scenario #2, where multiple tools are used to create an artwork, the complexity arises if the creative process begins in one country, continues in another, and is finalized in a third location. In such cases, the determination of the country of origin remains unresolved. A similar issue applies to collaborative projects, such as those involving employees of a multinational company contributing equally to a work. If there is no clear distinction as to where the significant creative contribution occurred, identifying the country of origin becomes even more challenging. This complexity underscores the limitations of *lex originis* in addressing works created through modern, cross-border processes.

A final disadvantageous outcome could arise if a right is declined protection under copyright in the forum state. If *lex originis* is the sole applicable choice of law principle, this denial of protection would apply worldwide, even though the decision pertains to a single jurisdiction. This is because *lex originis* always identifies a specific country as the origin, meaning the outcomes will depend entirely on that country's national legal framework. Unless an international mechanism is established to override such national norms, this limitation would remain.

Table 2. Analysis of *lex originis* as a choice of law principle for copyrightability of outputs generated with AI tools

| Advantages | Disadvantages |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Promotes consistent decision-making across multiple jurisdictions, regardless of where protection is sought | Contradicts territorial nature of intellectual property rights |
| Emphasizes copyright's universal nature rather than territoriality which aligns with proactive business approach | Determining the "place of origin" can be complex, especially for digital or collaboratively created works |
| Reduces the fragmentation of outcomes in disputes involving multiple jurisdictions | Lacks flexibility, as outcomes are strictly tied to the originating country's laws |
| Simplifies enforcement in multi-state disputes, ensuring consistent outcomes even in different forums | Can help reduce the practice of forum shopping |

Source: compiled by author based on comparative analysis.

3.3. Lex Domicilii

Applying *lex domicilii* - the principle that ties the applicable law to the habitual residence of the author may raise unique considerations in copyright disputes, particularly when addressing the challenges posed by works created using AI tools. This principle offers certain advantages but also presents notable disadvantages, particularly in multi-state disputes or complex scenarios.

By tying the applicable law to the author's habitual residence, *lex domicilii* offers a straightforward mechanism for determining which jurisdiction's laws apply. In Hypothetical Scenarios #1 and #2, legal certainty could be promoted only if the author operates within a single jurisdiction. While this approach minimizes the need to evaluate laws across multiple countries and promotes predictability, it falls short in situations where the author operates across multiple jurisdictions, requiring additional complexities to be addressed.

Lex domicilii is beneficial because it provides reasonable expectations regarding copyright protection for authors within the same domicile where they operate. This can be particularly advantageous for individual creators who rely solely on one jurisdiction and are familiar with their domestic legal framework to govern the protection of their works. However, in the current legal framework, the application of lex domicilii in Hypothetical Scenarios #1 and #2 may not necessarily benefit the author. For instance, if the work is created in the US by a US-based author, it will not receive uniform protection under lex domicilii because US law excludes outputs from copyright eligibility. Conversely, if the author resides in the EU, legal certainty would still not be fully promoted, as EU copyright law lacks a clear and defined framework for works created with AI tools.

For disputes arising within the author's domicile, *lex domicilii* simplifies legal proceedings by ensuring that domestic laws govern ownership and copyrightability. This reduces the need for cross-border litigation and enhances accessibility to legal remedies. However, a significant disadvantage of *lex domicilii* is the circular issue it creates, particularly when ownership of the work is in dispute. As Kono and Jurcys (2012) note, to determine the author's habitual residence—and thus the applicable law—ownership of the work must first be established. Yet, determining ownership often requires reference to the applicable law itself. This circularity complicates dispute resolution and creates additional legal uncertainty.

Hypothetical Scenario #2 further illustrates this complexity. For instance, if an output is collaboratively created by individuals with habitual residences in different

jurisdictions, determining which country's laws apply becomes increasingly challenging. The need to reconcile multiple authors' domiciles undermines the principle's simplicity and efficiency. Moreover, *lex domicilii* assumes the existence of a clear and identifiable human author. In cases like Hypothetical Scenario #1, where AI plays a significant role in the creation process, identifying a single author with a defined habitual residence may not be feasible. This limitation makes *lex domicilii* less adaptable to modern creative processes involving AI tools.

For works distributed or accessed globally, *lex domicilii* does not account for the economic and practical realities of global markets. Authors may face inconsistent protection across jurisdictions, particularly if the laws of their domicile are less favorable to works created with AI tools, than those of other countries. In cases where the author is a corporation or entity, determining the habitual residence introduces further complications. For example, if a multinational company operates in multiple countries, identifying its "habitual residence" for copyright purposes may lead to conflicting interpretations.

While *lex domicilii* offers advantages by aligning applicable law with the author's domicile and simplifying localized disputes, its inherent complexities—particularly the circular issue of ownership determination—significantly hinder its effectiveness. In multijurisdictional and AI-related disputes, the principle lacks the flexibility and adaptability needed to resolve modern copyright challenges efficiently. Therefore, while lex domicilii provides a degree of predictability in specific cases, it may not be the optimal choice of law rule for resolving disputes involving works created using AI technologies.

Table 2. Analysis of *lex domicilii* as a choice of law principle for copyrightability of outputs generated with AI tools

| Advantages | Disadvantages |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Reflects the author's reasonable expectations regarding copyright protection in their domicile | ε |
| Ensures the applied legal framework generally reflects the creator's cultural and legal environment | Does not account for global distribution or cross-border economic realities, leading to inconsistent protection |
| Offers consistent treatment for creators producing works across cross-jurisdictions | The principle may not align with the realities of cross-border digital distribution and global markets |

Source: compiled by author based on comparative analysis.

INTERIM CONCLUSIONS III

- 1. Lex loci protectionis reinforces the territorial nature of copyright law, resulting in fragmented legal outcomes in multi-jurisdictional disputes. Different countries currently can not provide legal certainty for copyrightability of works created with AI technologies on a national level, which leads to legal uncertainty and potential inconsistency in outcome decisions. Thus, determining the country in which protection is sought is complex for digital works.
- 2. Lex originis provides a more unified approach by applying the law of the country of origin across all jurisdictions. This reduces fragmentation and ensures consistent outcomes, but it depends heavily on the originating country's legal framework. If the origin country denies protection for works created with AI tools, this decision might apply globally, limiting opportunities for creators to benefit from more favorable laws in other jurisdictions.

4. **CONCLUSIONS**

- 1. International copyright law, while guided by multilateral instruments aimed to provide uniformity, relies heavily on national legal systems and international private law instruments. This results in inconsistencies in copyright protection and authorship across jurisdictions, particularly in the context of works created using AI technologies.
- 2. Both the EU and the US emphasize human involvement as a criterion for copyrightability. However, neither jurisdiction has established a clear framework to define the substantive level of "significant" human input, resulting in uncertainty for creators using AI tools. While the US has adopted a stricter position by explicitly denying copyright protection for works generated with AI tools, the lack of clarity in both jurisdictions undermines the economic value and enforceability of such works.
- 3. The territoriality principle, as reinforced by *lex loci protectionis*, struggles to address the realities of global trade, digital technologies, and cross-border accessibility. Its application often results in fragmented outcomes in multi-jurisdictional disputes and fails to provide legal certainty for works created with AI tools and distributed globally.
- 4. Lex originis offers a favorable choice of law approach among other "imperfect alternatives," as it aims to provide more predictable decisions in cross-border matters. By applying the law of the country of origin globally, this rule promotes a unified framework, reducing fragmentation and ensuring consistency. However, its reliance on the originating country's legal framework introduces challenges, particularly in determining the country of origin. Despite these challenges, lex originis remains a more favorable option compared to other choice of law rules analyzed.
- 5. Soft law tools such as the ALI Principles, CLIP Principles provide flexible mechanisms for resolving multi-jurisdictional copyright disputes. However, they fall short of addressing the unique complexities posed by works created using AI tools, underscoring the need for further development and harmonization.
- 6. The lack of clarity and consistency in addressing copyrightability and authorship of works created with AI tools highlights the urgent need for harmonized international standards. These standards should reconcile territoriality with the global and digital

nature of intellectual property, ensuring legal certainty and economic value for creators in a rapidly evolving landscape.

LIST OF REFERENCES

Regulatory legal acts:

Berne Convention for the Protection of Literary and Artistic Works (1886). [1979] UNTSer 943; 828 UNTS 221.

European Parliament and Council (2001). *Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society*. Official Journal of the European Communities, L 167, p. 10.

European Parliament and Council (2019). *Directive 2019/790/EC of 17 April 2019 on copyright and related rights in the Digital Single Market*. Official Journal of the European Union, L 130, p. 92.

Library of Congress Copyright Office (2023). *Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence. Rule by the Copyright Office*, Library of Congress, 16 March. Federal Register, 37 CFR Part 202.

United States Congress (1976). *The Copyright Act of 1976*. Public Law No. 94-553. Washington, D.C.: Government Publishing Office.

Special literature:

Basedow, J., Kono, T., and Metzger, A. (2010). *Intellectual Property in the Global Arena: Jurisdiction, Applicable Law, and the Recognition of Judgments in Europe, Japan and the US.* Tübingen: Mohr Siebeck. Available at: https://www.loc.gov/item/2020718007/ [accessed 17 November 2024].

Bowker, R. R. (1912). *Copyright: Its History and Its Law*. New York and Boston: Houghton Mifflin.

Kyoto Guidelines on Intellectual Property and Private International Law. JIPITEC, 12(2), p. 102–120.

Max Planck Institute for Intellectual Property and Competition Law (2012). *Principles for Conflict of Laws in Intellectual Property*. Munich: Max Planck Institute.

The American Law Institute (2008). *Intellectual Property: Principles Governing Jurisdiction, Choice of Law and Judgments in Transnational Disputes*. Chestnut: ALI Publishers.

van Eechoud, M. (2003). Choice of Law in Copyright and Related Rights: Alternatives to the Lex Protectionis. *Information Law Series*, 12 [interactive]. Available at: https://www.ivir.nl/publicaties/download/970.pdf [accessed 8 December 2024].

Court jurisprudence:

Copyright Review Board (2023). Second Request for Reconsideration for Refusal to Register Théâtre D'opéra Spatial (SR # 1-11743923581; Correspondence ID: 1-5T5320R), United States Copyright Office, 5 September 2023.

Infopaq International A/S v Danske Dagblades Forening [CJEU], No. C-5/08, [2009-07-16]. ECLI:EU:C:2009:465.

S. *Š. v Taubel Legal, advokátní kancelář s.r.o.* [Municipal Court in Prague], No. 10C_13_2023, [2023-10-11].

Thaler v. Perlmutter [United States District Court for the District of Columbia], No. 1:22-cv-01564-BAH), [2023-08-18].

U.S. Copyright Office (2023). Zarya of the Dawn: Decision Letter on Copyright Registration. Available at: https://www.copyright.gov/docs/zarya-of-the-dawn.pdf [Accessed 22 December 2024].

Other sources:

Adobe Blog. Creative pros are leveraging Generative AI to do more and better work. [interactive]. Available at: https://blog.adobe.com/en/publish/2024/02/02/creative-prosgenerative-ai-

usage#:~:text=Generative%20AI%20is%20here&text=Over%20four%2Dfifths%20(83%20percent,their%20personal%20lives%2C%20as%20well. [Accessed 15 October 2024].

BBC News (2012). When Charles Dickens fell out with America. BBC News, 14 February. [interactive]. Available at: https://www.bbc.com/news/magazine-17017791 [Accessed 9 October 2024].

Dreier, T. (2017). Copyright in the times of the internet—overcoming the principle of territoriality within the EU. *ERA Forum*, 18, p. 7–19 [interactive]. Available at: https://doi.org/10.1007/s12027-017-0462-7 [Accessed 4 November 2024].

Dreyfuss, R. C. (2022). Self-Executing International Intellectual Property Obligations? *Intellectual Property Ordering beyond Borders*, p. 315 [interactive]. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781009071338.016

European Innovation Council and SMEs Executive Agency (2024). Artificial intelligence and copyright: use of generative AI tools to develop new content. European Commision, [blog] 16 July. Available at: https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/artificial-intelligence-and-copyright-use-generative-ai-tools-develop-new-content-2024-07-16-0_en [Accessed 11 November 2024].

Formosa, P., Bankins, S., Matulionyte, R., et al. (2024). Can ChatGPT be an author? Generative AI creative writing assistance and perceptions of authorship, creatorship, responsibility, and disclosure. *AI & Society*, https://doi.org/10.1007/s00146-024-02081-0

Fritz, J. (2024). The notion of 'authorship' under EU law - who can be an author and what makes one an author? An analysis of the legislative framework and case law. Journal of Intellectual Property Law & Practice, 19(7), p. 552–556, https://doi.org/10.1093/jiplp/jpae022

Gaffar, H., Albarashdi, S. (2024). Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape. *Asian Journal of International Law*, p. 1–24, https://doi.org/10.1017/S2044251323000735

Geiger, C. (2024). Elaborating a human rights-friendly copyright framework for generative AI. *Joint PIJIP/TLS Research Paper Series*, 123 [interactive]. Available at: https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1125&context=rese arch [Accessed 2 December 2024].

Ginsburg, J. C. (2018). People Not Machines: Authorship and What It Means in the Berne Convention. *IIC - International Review of Intellectual Property and Competition Law*, 49, p. 131-135, https://doi.org/10.1007/s40319-018-0670-x

Hardman, B. and Housel, J. (2023). *A Sui Generis Approach to the Protection of AI-Generated Works: Balancing Innovation and Authorship*. http://dx.doi.org/10.2139/ssrn.4557004

IIPRD (2024). *AI and copyright: Navigating legal challenges and ownership in the digital era*. IIPRD [Blog] Available at: https://www.iiprd.com/ai-and-copyright-navigating-legal-challenges-and-ownership-in-the-digital-era/ [Accessed 4 December 2024].

ISO/IEC JTC 1/SC 42. *Artificial intelligence concepts and terminology*. [interactive]. Available at: https://www.iso.org/obp/ui/en/#iso:std:iso-iec:22989:ed-1:v1:en [Accessed 21 October 2024].

Jiang, J. (2023). Copyrights infringement risks in AI-generated cover songs: An analysis based on current legislation. *Lecture Notes in Education Psychology and Public Media*, 20(1), p. 19–25, https://doi.org/10.54254/2753-7048/20/20231467

Joyce, C. (2010). The Statute of Anne: Yesterday and Today. *Houston Law Review*, 47, p. 779–792. [interactive]. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3627730 [Accessed 24 October 2024].

Jurcys, P. (2012). International Jurisdiction in Intellectual Property Disputes: CLIP, ALI Principles and other Legislative Proposals in a Comparative Perspective. *JIPITEC*, 3(3), p. 174–226. [interactive]. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2160076 [Accessed 26 November 2024].

Kono, T. and Jurcys, P. (2012). General Report (Intellectual Property and Private International Law). *Intellectual Property and Private International Law: Comparative Perspectives*. [interactive] (modified 2021-08-26). Available at: hhttps://papers.ssrn.com/sol3/papers.cfm?abstract_id=1985472 [Accessed 18 November 2024].

Kur, A. and Maunsbach, U. (2019). Choice of law and intellectual property rights. *Oslo Law Review*, 6(1), p. 43–61, https://doi.org/10.18261/issn.2387-3299-2019-01-07

Loren, L. P. (2016). Fixation as Notice in Copyright Law. *Boston Law University Review*, 96, p. 939-966 [interactive]. Available at: https://www.bu.edu/bulawreview/files/2016/10/12.-LOREN.pdf [accessed 3 November 2024].

Marchenko, V., Dombrovska, A. and Prodaivoda, V. (2024). Comparative analysis of regulatory acts of the EU countries on the protection of intellectual property in the conditions of the use of artificial intelligence. *Public Administration and Law Review*, 3(19), p. 44–66, https://doi.org/10.36690/2674-5216-2024-3-44-66

Mathur, A. (2023). *Copyright Registration for AI Generated Works: Zarya of the Dawn and the Dawn of a New Creator*. Center for Art Law, 6 July. Available at: https://itsartlaw.org/2023/07/06/copyright-registration-for-ai-generated-works-zarya-of-the-dawn-and-the-dawn-of-a-new-creator/ [Accessed 16 December 2024].

Mezei, P. (2023). 'You AIn't Seen Nothing yet' – Arguments against the Protectability of AI-generated Outputs by Copyright Law. *Maurizio Borghi - Roger Brownsword (eds): Informational Rights and Informational Wrongs: A Tapestry for Our Times*, p. 126-143 [interactive]. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3890051 [accessed 27 October 2024].

Miaz, J. et al. (2024). Shaping the Uses of a Treaty Through Ratification and Implementation Procedures. Engaging with Human Rights, https://doi.org/10.1007/978-3-031-53518-5_3

O'Callaghan, C. (2023). Can Output Produced Autonomously by AI Systems Enjoy Copyright Protection, and Should It? An Analysis of the Current Legal Position and the Search for the Way Forward. *Cornell International Law Journal*, 55, p. 305-306. [interactive]. Available at: https://cornellilj.org/wp-content/uploads/2024/01/OCallaghan-final.pdf [Accessed 5 November 2024].

O'Halpin, O. (2022). Modern challenges to Lex Loci Protectionis: A need for change? *Jura Falconis*, 58(2), p. 541-554 [interactive]. Available at: https://www.law.kuleuven.be/apps/jura/public/art/58n2/ooh.pdf? [accessed 7 December 2024].

Oke, E. (2018). Territoriality in intellectual property law: Examining the tension between securing societal goals and treating intellectual property as an investment asset. SCRIPT*ed*: *A Journal of Law, Technology and Society,* 15(2), p. 313–348, https://doi.org/10.2966/scrip.150218.313

Oratz, L., Robbins, T., and West, D.S. (2024). Initial rulings in AI copyright litigation provide insight but leave questions unanswered. The Brief, 53(3), p. 26–35 [interactive]. Available at: https://law-journals-books.vlex.com/vid/initial-rulings-in-ai-1047663432 [accessed 5 December 2024].

Oxford University Press. *Copyright*. [online]. Available at: https://www.oed.com/dictionary/copyright_n?tl=true [Accessed 21 October 2024].

Paulius Jurcys (2024). Who Owns AI-Generated Output? — Insights from Our "Crafting the Future: AI, Creativity & Rights" Workshop [blog] 13 October. Available at: https://pjurcys.medium.com/who-owns-ai-generated-output-a4eb310fc643 [Accessed 15 December 2024].

Peukert, A. (2012). Territoriality and extra-territoriality in intellectual property law. Beyond Territoriality, Queen Mary Studies in International Law, 11, p. 189–228., https://doi.org/10.1163/9789004227095_009 Ruse-Khan, H. G. (2021). Intellectual Property and International Law: A Research Framework. *Handbook of Intellectual Property Research: Lenses, Methods, and Perspectives*, p. 16, https://doi.org/10.1093/oso/9780198826743.003.0002

Tang, Z. (2024). Territoriality and intellectual property infringement proceedings. *The Korean Journal of International and Comparative Law*, 12(1), p. 97–115, https://doi.org/10.1163/22134484-12340190

The Editors of the EAPIL blog (2021). Kyoto Guidelines on Intellectual Property and Private International Law. The EAPIL blog [blog] 14 April. Available at: https://eapil.org/2021/04/14/kyoto-guidelines-on-intellectual-property-and-private-international-law/ [Accessed 18 November 2024].

U.S. Copyright Office. *Circular 1. Copyright Basics*. [interactive] (modified 2021-09). Available at: https://www.copyright.gov/circs/circ01.pdf [accessed 11 November 2024].

U.S. Copyright Office. Circular 30. Works Made For Hire. [interactive] (modified 2024-08). Available at: https://copyright.gov/circs/circ30.pdf [accessed 27 October 2024].

Uddin, M., Rahmat, N.E., Billah, M., Amin, M.R. and Riauduzzaman, M. (2024). Doctrine of domicile in conflict of laws: An appraisal for determining private law. *Pakistan Journal of Life and Social Sciences*, 22(2), p. 15510–15523, https://doi.org/10.57239/PJLSS-2024-22.2.001125

Yanisky-Ravid, S. (2017). Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era—The Human-like Authors are Already Here: A New Model. *Michigan State Law Review*, 2017(3), p. 659–732. Available at: https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1955&context=faculty_scholars hip [Accessed 24 November 2024].

SUMMARY

AI and International Copyright Law: Is a Common Approach to Authorship Feasible?

Jonita Oržekauskaitė

This thesis examines the legal challenges surrounding the authorship and copyrightability of works created using Artificial Intelligence (AI) technologies, with a focus on the legal frameworks of the European Union and the United States. It explores whether international private law mechanisms and choice of law instruments can provide legal certainty for authors and creators seeking copyright protection for works generated using AI tools in cross-border matters.

The research addresses the pressing need to address legal uncertainties surrounding AI and the copyrightability of works in an era where such creations increasingly transcend national borders and challenge existing copyright law foundations. A comparative analysis of the EU and US approaches to copyrightability and authorship for works created using AI highlights the absence of a unified definition of "significant human involvement" as a critical issue. This divergence in national frameworks, coupled with the lack of an international public law solution, underscores the broader challenge of fragmented legal outcomes in cross-border matters, particularly for creators using AI tools in the creative processes. These inconsistencies impact the economic value, enforceability, and global distribution of works created using AI tools, exposing vulnerabilities for creators operating not only across multiple jurisdictions but also within individual national systems.

Key takeaways from this research emphasize the current legal uncertainty in international copyright law. The thesis proposes the application of choice of law instruments to promote more predictable outcomes in cross-border disputes, advocating for the development of international private law mechanisms that prioritize certainty and predictability in resolving such issues. By exploring alternative frameworks such as *lex originis* and soft law instruments like the Kyoto Guidelines, the research argues for an approach that aligns with the realities of global trade, digital technologies, and the growing reliance on AI in creative processes. This work serves as a valuable guide for authors, academics, and lawmakers, emphasizing the necessity of adopting a forward-looking and unified approach to address the legal uncertainties posed by AI technologies in the creative processes.