# HUMAN AUTHORSHIP IN THE AGE OF GENERATIVE AI: A DOCTRINAL AND NORMATIVE INQUIRY INTO MACEDONIAN COPYRIGHT LAW

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*In recent years, courts around the world have begun to confront the legal implications of AI-generated content, particularly in the field of copyright. While Macedonian courts have not yet been directly faced with such questions, it is only a matter of time before similar disputes arise in our jurisdiction. This growing international debate served as the main inspiration for this paper. The structure of the paper follows clear progression. It begins with an overview of some of the most relevant global tendencies, selected and interpreted from the author's perspective, in order to frame the complexity of the issue. The question of authorship and copyright protection for AI-generated works is examined both through existing court decisions and doctrinal reflections from several jurisdictions. The analysis then narrows its focus to the Macedonian context. It outlines the key legal provisions relevant to authorship and copyright, particularly Articles 17 and 19 of the Law on Copyright and Related Rights. It assesses how these provisions are interpreted in judicial practice. Several domestic court decisions that resolve classical questions of authorship were selected and analyzed to understand how judges in Macedonia define and apply core copyright concepts. The final part of the paper moves toward drawing conclusions and offering reflections on how such cases might be treated in the near future. It raises the question of whether the current legal framework is sufficiently equipped to deal with AI-generated work and considers whether legal reform, either through reinterpretation or structural changes, may be necessary to respond to this emerging challenge.*

*Key words: AI-generated work; copyright; authorship; author; Macedonian copyright law*

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## 1. AUTHORSHIP AND ORIGINALITY IN THE CONTEXT OF AI-GENERATED WORK[1] (DOCTRINAL BACKGROUND)

The central doctrinal issue raised by AI-generated content is the question of authorship. Copyright law across jurisdictions is traditionally structured around the idea that work must be the result of a natural person's intellectual creation. This anthropocentric approach has proven doctrinally rigid in the face of works produced entirely or partially by generative artificial intelligence.

The traditional standard of originality, often expressed as the "author's intellectual creation" in civil law systems or through concepts such as "skill and labor" in common law jurisdictions, assumes human activity. As doctrinally elaborated in literature, AI-generated outputs are generally not seen as capable of fulfilling this requirement unless substantial human intervention is present. In most jurisdictions, originality is the doctrinal threshold for protection. AI systems, even when capable of producing sophisticated outputs, do not possess legal subjectivity and cannot qualify as authors under current legal definitions. As a result, courts and legal scholars continue to debate whether the user of the AI system, the developer, or another party could be recognized as the author through legal fiction or attribution models. In this framework, prompts, instructions, and editorial refinements may be relevant, but without a consistent theoretical threshold for originality, the law offers no clear standard for how much human input is enough.[2]

Some argue that current doctrine is not merely outdated but conceptually unfit to accommodate autonomous systems. Even in hybrid cases where human involvement is present through prompts, curation, or editing there is no unified criterion for when that contribution becomes sufficient to meet the standard of authorship.[3] This doctrinal vagueness has led to proposals for introducing a *sui generis* regime specifically designed for AI-generated content.

Legal literature confirms this tension. As noted in one comparative analysis, copyright frameworks fail to accommodate non-human creativity because they

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[1] For the purposes of this paper, "AI-generated works" refers to outputs produced wholly or partially through the use of artificial intelligence systems that fall within categories protected by copyright law, such as literary, artistic, musical, and photographic works, and which are capable of meeting the legal criteria of originality and authorship under the jurisdictions examined.

[2] See pp. 2 – 7 in Gaffar, H.; Albarashdi, S., *Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape*, Asian Journal of International Law, *vol.* 15, no. 1, 2024.

[3] *Ibid*., p. 6.

are built on foundations that exclude that possibility altogether.[4] The idea that ownership and protection should follow from authorship presumes a subject capable of holding rights and bearing responsibility, criteria which autonomous AI systems do not fulfill.

The divergence in international practice further illustrates the doctrinal fragility. The United States has taken a strict position, emphasizing that human creativity is a non-negotiable condition for protection. The UK, while still maintaining a human-centered understanding, has introduced an exception through section 9(3) of the Copyright, Designs and Patents Act[5], allowing authorship to be assigned to the person who "makes the necessary arrangements" for the creation of the work. However, the doctrine considers that this provision lacks consistent judicial interpretation and serves more as a workaround than a fully developed solution.[6] Some authors have critically analyzed such attribution mechanisms, observing that while they offer some practical utility, they do not resolve the deeper doctrinal inconsistency of granting copyright protection to works lacking human creative origin. In their view, the British model remains exceptional, untested in most other jurisdictions, and doctrinally fragile even within the UK.[7]

Human-centered civil law principles remain the foundation of China's copyright protection strategy for AI-generated works. Under Article 11 of the Copyright Law (2020 revision)[8] only natural persons or legal entities acting through human-directed creation can qualify as authors and copyright holders in China. While Article 3 includes an expansive definition of "works", it does not extend legal personhood to AI systems. This law does not explicitly address AI-generated works, leading to debates about whether the user or the AI's designer should be recognized as the author. Current interpretations suggest that the user, who inputs instructions and guides the AI, may be deemed the author.[9] Additionally, there is no explicit provision in Chinese law defining

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4 Bukhari, S.; Hassan, S., *Impact of Artificial Intelligence on Copyright Law: Challenges and Prospects*, Journal of Law & Social Studies, *vol.* 5, no. 4, 2024, pp. 647 – 656.

5 Copyright, Designs and Patents Act of 15 November 1988, United Kingdom Statute Law, 1988, c. 48, as amended.

6 Zhuk, A., *Navigating the legal landscape of AI copyright: a comparative analysis of EU, US, and Chinese approaches*, AI and Ethics, *vol.* 4, no. 4, 2024, pp. 1301 – 1304.

7 Quintais, H., *The Concept of Authorship in Machine-Generated Works: Comparative Analysis*, International Review of Intellectual Property and Competition Law, *vol.* 52, 2021, pp. 1193 – 1210.

8 Copyright Law of the People's Republic of China of 11 November 2020, Gazette of the Standing Committee of the National People's Congress 2021, no. 1, as amended.

9 Han, W., *Authorship of Artificial Intelligence-Generated Works and Possible System Improvement in China*, Beijing Law Review, *vol.* 14, 2023, pp. 907 – 910.

originality, which complicates the status of AI-generated works and leads to a division among scholars as to whether these works meet the originality threshold necessary for copyright protection.[10]

Chinese judicial practice is more open to recognizing AI-assisted works. Courts have accepted protection for outputs where the user exercised control over the process through selection, refinement, or editing. Unlike the more rigid approaches in the U.S. and EU, the Chinese model treats human involvement as a continuum rather than a binary threshold.[11]

At the EU level, the situation remains unresolved. The *acquis* presumes authorship by a natural person and ties originality to the "author's intellectual creation." There is no harmonized position on AI-generated works, and existing legislation does not offer doctrinal space for non-human authorship. Nonetheless, scholarly proposals for reform are gaining visibility, including the possibility of recognizing AI-generated outputs under a new protective framework modeled on database or software protection regimes.[12]

A more radical perspective is offered by certain authors who contend that copyright is simply not the appropriate legal mechanism to deal with generative AI. There are cautions against expanding the scope of copyright protection through forced doctrinal interpretation, noting that this risks both overprotection and erosion of the public domain. Instead, the authors advocate for exploring alternative governance mechanisms like contractual frameworks, data licensing regimes, or entirely new legal categories for AI-generated content.[13]

International institutions such as the World Intellectual Property Organization (WIPO) have taken a clear stance on the need for human intellectual contribution as a prerequisite for copyright protection. In its 2024 guidance on generative AI and IP, the WIPO emphasizes that works produced solely by AI, without human creative input, fall outside the scope of existing copyright protection frameworks. According to the WIPO, copyright law is premised on originality as an expression of human creativity, and mere prompting or procedural direction does not meet the threshold for authorship under international standards. This reinforces the classic European approach that considers authorship an inherently human function, structurally excluding autonomous machine-generated content from protection. In this respect, national legisla-

10 Han, W., *op. cit*. (fn. 9), pp. 903 – 906.

11 Zhuk, A., *op. cit*. (fn. 6), pp. 1302 – 1304.

12 *Ibid*.

13 Mantegna, M., *ARTificial: Why Copyright Is Not the Right Policy Tool to Deal with Generative AI*, Yale Law Journal Forum, *vol*. 133, 2024, p. 1174.

tion, such as that of North Macedonia, must carefully align with emerging international interpretations while addressing local judicial understandings of authorship and creative labor.[14]

## 2. JUDICIAL APPROACHES TO AI-GENERATED WORKS IN COPYRIGHT: A COMPARATIVE OVERVIEW OF EMERGING CASE LAW WORLDWIDE

Although legal scholarship has largely preserved traditional concepts of authorship and originality, it is through judicial reasoning, often case by case, that the boundaries of these concepts are being tested, particularly as courts begin to deal with the complexities introduced by AI-generated content. Two problems dominate the emerging judicial reasoning. First, there is the question of whether a work created by an AI system, independently or with limited human intervention, can be protected under existing copyright laws. If the answer is yes, then the issue of authorship follows: Who, if anyone, can be identified as the legal author? Second, and increasingly important, is the matter of inputs: can copyrighted material be lawfully used to train AI models, especially when that material has not been licensed by or used with the consent of rights holders?

Court practice in various jurisdictions shows that these problems are no longer abstract. In the United States, the decision in Thaler v. Perlmutter[15] confirmed that works generated by machines without human input do not qualify for protection under U.S. copyright law. Australia has taken a similar position in older but relevant cases like Telstra v. Phone Directories[16] and Acohs v. Ucorp[17] both of which denied copyright protection to content generated through automated processes because no human intellectual input could be identified. In Europe, a court in the Czech Republic recently refused to recognize copyright for images created using the DALL·E system, citing the absence of human creativity.[18]

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[14] WIPO's IP and Frontier Technologies Division, *Generative AI Navigating Intellectual Property,* WIPO, 2024, https://www.wipo.int/export/sites/www/about-ip/en/frontier_technologies/pdf/generative-ai-factsheet.pdf (23 July 2025).

[15] *Thaler v. Perlmutter*, Judgment, Case no. 22-cv-01564, 18 August 2023.

[16] *Telstra Corporation Ltd v. Phone Directories Co Pty Ltd*, Judgment, Case no. NSD 534 of 2007, 8 February 2010.

[17] *Acohs Pty Ltd v. Ucorp Pty Ltd*, Judgment, Case. no. VID 873 of 2004, 2 March 2012.

[18] Chloupek, V., *Czech Court Denies Copyright Protection of AI-Generated Work in First Ever Ruling*, Bird & Bird, 26 April 2025, https://www.twobirds.com/en/insights/2024/czech-republic/czech-court-denies-copyright-protection-of-ai-generated-work-in-first-ever-ruling (20 August 2025).

On the other hand, courts in China have begun to move in a different direction. In the so-called "Half-Heart"[19] case and other recent rulings, Chinese courts have granted protection to AI-assisted works where human involvement (through specific prompts, selection, or editing) could be shown. These decisions are generally based on the premise that in the case of a human making creative choices, even if AI is responsible for generating the form, a minimal threshold of originality can still be met.

The United Kingdom offers a notable comparative reference point through its statutory recognition of authorship in situations where no direct human creator can be identified. This framework, discussed earlier in this paper, has been applied sparingly and with caution in judicial practice. In Nova Productions Ltd v. Mazooma Games Ltd & Ors [2007] EWCA Civ 219[20], the Court of Appeal addressed the copyright status of images generated by gameplay in a computer game. The court affirmed that while ideas themselves are not protectable, the specific expression of those ideas, realized through human design and technical arrangement, can be. It held that although the images were rendered by a computer during play, they were the result of prior human authorship and structural design. Crucially, the court determined that the individual who "made the arrangements necessary for the creation of the work" could be considered the author under section 9(3), reinforcing the notion that creative control or structural input, even if indirect, remains a doctrinal prerequisite for protection.

This principle is now being tested further in the pending case of Getty Images v. Stability AI[21], where the use of copyrighted photographic material to train the image-generating AI model Stable Diffusion has raised questions not only of infringement, but also of originality and authorship in the resulting outputs. While the case has not yet been decided, it underscores a critical tension: when AI systems produce visual content derived from large volumes of human-authored data, is the resulting output the product of authorship, or merely a statistical recombination of protected elements?

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[19] Chatterton, E.; Zhang, J.; Blackford, L., *Another Chinese Court Finds that AI-Generated Images Can Be Protected by Copyright: the Changshu People's Court and the 'Half Heart' Case*, Technology's Legal Edge, 21 March 2025, https://www.technologyslegaledge.com/2025/03/another-chinese-court-finds-that-ai-generated-images-can-be-protected-by-copyright-the-changshu-peoples-court-and-the-half-heart-case/ (20 August 2025).

[20] *Nova Productions Ltd v. Mazooma Games Ltd & Others*, Judgment of 14 March 2007, Court of Appeal (Civil Division), Ref. No. A3/2006/0205, Reported in 2007 EWCA Civ 219.

[21] *Getty Images (US), Inc. v. Stability AI, Ltd.*, High Court of Justice, Chancery Division, Intellectual Property List, Claim No. IL-2023-000005.

These notions lead us to the second set of cases that deal with a different aspect of AI and copyright: the legality of using protected works to train AI systems. These cases, which are mostly still pending, raise complex issues about the boundaries of fair use and the application of licensing rules. In Getty Images v. Stability AI (UK), Kneschke v. LAION (Germany)[22], and French Authors v. Meta[23], claimants argue that the mass use of protected images and texts for training purposes without authorization violates existing copyright protections. Although these cases are focused more on the use of datasets than the output of AI systems, they are closely connected to the broader question of how copyright law should apply to machine learning environments.

The comparative picture that emerges is fragmented but instructive. While most courts reject the idea that machines can create protectable works independently, many are willing to acknowledge human authorship where the individual has exercised some degree of creative control, whether before, during, or after the AI process. At the same time, there is growing attention to the legal status of AI training practices, which may themselves infringe upon protected works even where the output is original or distinct.

## 3. AUTHORSHIP AND ORIGINALITY UNDER MACEDONIAN COPYRIGHT LAW THROUGH DOCTRINAL LANDSCAPE AND LEGAL BOUNDARIES

Macedonian copyright law remains firmly rooted in the traditional framework that links authorship to human intellectual creativity and originality to personal expression. The core provisions of the Law on Copyright and Related Rights[24] reflect this conventional model and align conceptually with international copyright instruments, such as the Berne Convention[25], to which North Macedonia is a party.

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[22] *Robert Kneschke v. LAION* e.V., Judgment, 28 February 2024.

[23] *French Publishers and Authors v. Meta Platforms Inc.,* Paris Judicial Court, filing of 8 March 2025, pending.

[24] Закон за авторското и други сродни права [Law on Copyright and Related Rights], Службен весник на Р. Македонија број 115/2010 [Official Gazette of Republic of Macedonia No. 115/2010], from 31 August 2010.

[25] World Intellectual Property Organization, Berne Convention for the Protection of Literary and Artistic Works, Paris Act of 24 July 1971, as amended by the 1979 Amendment, WIPO Collection of Laws for Electronic Access (CLEA).

While the law does not offer a fixed definition of originality, it adopts an objective threshold: the work must reflect the author's individual intellectual contribution. Under Article 12 of the Law on Copyright and Related Rights, an "author's work" is defined as an "intellectual and individual creation" in the fields of literature, science, art, and journalism, expressed in any form or medium. This definition, though broad in scope, is framed around the notion of personal, human creativity. Notably, the law explicitly includes computer programs as protected works, classifying them as a form of written expression. However, it does not extend authorship or protection to outputs generated by autonomous systems or machines without human input.

The foundation of authorship is further elaborated in Article 17 of the Law on copyright and related rights, which clearly states that an "author" is a natural person who creates the work. This definition leaves little interpretative room for attributing authorship to artificial agents or AI systems. Moreover, the same article affirms that copyright arises automatically with the creation of the work, again presupposing a human act of intellectual creation.

The provisions on co-authorship under Article 19 further reinforce this human-centered model by regulating collaboration between multiple natural persons, each contributing to a single intellectual product. The law provides detailed rules on the use and division of rights in such cases but does not refer directly or indirectly to non-human participants in the creative process.

The moral rights defined under Article 21 further emphasize the personal and inalienable link between the author and their work. These rights, including the right to be recognized as the author and the right to protect the integrity of the work, are explicitly described as exclusive and non-waivable. Such formulation underscores the legislature's intent to preserve the integrity of human authorship as a core principle of Macedonian copyright law.

In this manner Macedonian legislation adheres closely to the classic European copyright tradition, which also views the author as a creative individual and grants protection to works only insofar as they reflect intellectual, original, and human effort.[26] As such, the current legal framework offers no clear pathway for the recognition or regulation of AI-generated works that lack meaningful human intervention. The normative architecture assumes authorship as inherently human, making the existing doctrine structurally poorly positioned to respond to questions raised by fully or semi-autonomous machine-generated content.

[26] More on the European copyright doctrine in Hugenholtz, B. P.; Quintais, P. J., *Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?,* International Review of Intellectual Property and Competition Law (IIC), *vol.* 52, 2021, pp. 1190 – 1216.

In North Macedonia, as in most EU jurisdictions, incorporating copyrighted works into AI training datasets through text and data mining (TDM)[27] faces significant legal obstacles. The EU's legal framework emphasizes the necessity of obtaining consent from rightsholders for the reproduction and use of protected works. This is supported by various directives, including the InfoSoc Directive[28] and the CDSM Directive[29], which delineate specific exceptions and limitations while also underscoring the importance of lawful access to content for activities like TDM. Overall, the balance between protecting creators' rights and enabling innovation remains a key consideration in EU copyright law.[30]

Since the act of copying, reproducing, broadcasting, or adapting any protected work requires prior authorization, using such works as input data, without consent, may fall afoul of the exclusive rights granted to authors. These exclusive rights, combined with the *erga omnes* effect, reinforce the notion that works cannot be freely extracted and reused, even for purposes that claim innovation or technological advancement. There is currently no statutory exception that allows for the large-scale scraping or processing of protected content for machine learning purposes. The broad and *erga omnes* nature of the exclusive rights granted by the law further suggests that even indirect or automated use of such works (e.g., in training a generative model) could constitute infringement if done without permission.[31] In light of this, AI developers operating within or exporting models to the Macedonian jurisdiction must approach the use of copyrighted input with heightened caution. Without either a licensing mechanism or legislative reform addressing text and data mining (TDM) or machine learning specifically, the use of protected materials in AI development risks colliding with entrenched authorial rights.

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[27] In the EU, TDM got explicit recognition in the Copyright in the Digital Single Market (CDSM) Directive through Articles 3 and 4, referenced in footnote 29.

[28] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, Official Journal L 167/10.

[29] Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, Official Journal L 130/92.

[30] Kalpana, T., *Copyright, Text & Data Mining and the Innovation Dimension of Generative AI*, Journal of Intellectual Property Law & Practice, *vol.* 19, no. 7, 2024, p. 559.

[31] Pepeljugoska, A.; Jankoska, A., *Copyright protection of photographs published on social media through the court practice in North Macedonia*, Balkan Social Science Review, *vol.* 19, 2022, pp. 10 – 11.

## 4. JUDICIAL INTERPRETATION OF AUTHORSHIP IN MACEDONIAN COPYRIGHT LAW

Macedonian court practice in the field of copyright is relatively rare, and decisions that address the concept of authorship in a substantive way are even rarer. The cases selected for this analysis represent some of the few available examples in which the judiciary has applied Articles 17 and 19 of the Law on Copyright and Related Rights to resolve disputes involving the recognition of an author or co-author. Their relevance for this research lies in the fact that they offer a direct judicial interpretation of "authorship" as a legal category, as well as an illustration of how courts handle evidentiary and doctrinal questions tied to the creative contribution of a natural person.

Given the absence of domestic case law on AI-generated works, these decisions provide an indirect but valuable lens through which to anticipate how similar disputes might be addressed in the future. The methodology behind their selection is therefore pragmatic: rather than seeking a comprehensive dataset, which does not exist, we focus on individual judgments that clarify the boundaries of human authorship and the conditions under which it can be legally recognized.

By situating these rulings within the broader doctrinal and comparative discussion developed earlier in the paper, the analysis aims to bridge theory and practice. The goal is not only to map the current state of Macedonian jurisprudence but also to identify interpretive tendencies that could inform the treatment of AI-generated works should such cases eventually come before Macedonian courts.

### 4.1. Authorship and the burden of proof under article 17: promotional event script dispute

In this case, referenced as GZ-2900/21, the Decision of 24.11.2021[32], the Court of Appeals in Skopje reviewed a dispute centered on a claim of copyright infringement and authorship over a children's television program. The plaintiff, a former editor and scriptwriter employed in a national public broadcasting institution, asserted that her earlier scripts from the 1990s had been unlawfully used and adapted into a new television series produced in 2019. The defendants, a production company and the public broadcaster, rejected these claims, asserting that the 2019 series was an entirely original work created through a

[32] The decision is available at http://www.vsrm.mk, last accessed on 13 August 2025.

separate contractual and creative process. Comparable approaches in European doctrine underline that in works created under employment, the employer generally acquires the economic rights by default, while moral rights remain with the employee but may be limited where the work is incomplete or non-public.[33]

The crux of the appellate analysis rested on whether the plaintiff could be legally recognized as the author of the original material under Article 17 of the Macedonian Law on Copyright and Related Rights, and whether any violation of her moral or economic rights had occurred. The court carefully distinguished between creative initiative and authorship in the legal sense, underscoring that the mere act of conceptual development or initial scripting, even if substantively connected to later works, does not in itself establish enforceable authorship rights. Crucially, the court emphasized that under Macedonian law, authorship must be demonstrated through expressive, original, and completed contributions and must be linked to an identifiable individual, as stated in Article 17(1): "An author is a natural person who created the work."

The plaintiff's submissions, including early versions of the scripts and internal communications, were acknowledged as part of her professional duties at the time; however, the court characterized them as work products developed within an employment relationship, governed by internal institutional regulations. The employer, in this case the public broadcaster, was found to hold the economic rights over such works, in line with longstanding Macedonian practice on employer-authored content and as guided by prior case law and internal rulebooks. Therefore, the plaintiff lacked standing to claim economic rights independently. More importantly for doctrinal interpretation, the court clarified that even moral rights, such as the right to attribution or protection of the work's integrity, require the work to reach a level of fixed expression and final form. The scripts in question were found to be early drafts or "working documents" lacking the necessary degree of completion and intellectual individuation that would warrant independent recognition of authorship. This aspect of the judgment is particularly important when extrapolating toward scenarios involving AI-generated content, where questions often arise about human intervention and finalization. This approach aligns with comparative doctrinal views that authorship is a legal construct dependent on demonstrable expressive fixation, and that preliminary drafts ordinarily do not suffice to trigger protection, due to their lack of finalization and tangibility. The legal frameworks across various jurisdictions converge on the principle that authorship is attributed to those

[33] Bently, L.; Sherman, B., *Intellectual Property Law*, Oxford University Press, Oxford, 2014, pp. 125 – 127.

who exhibit creative originality and control over a work, rather than merely executing predetermined instructions. [34]

Furthermore, the court rejected the claim that the title or general idea of the show constituted protected expression, reiterating the principle from Article 16 of the Law: ideas, concepts, methods, and styles are not copyrightable, only their unique expression qualifies for protection.

By aligning itself with a strict reading of authorship as human, individual, and demonstrably expressive, the appellate court provided valuable guidance on the standard of proof and the conceptual boundaries of authorship. In doing so, it implicitly reaffirmed the exclusionary nature of the current copyright doctrine for contributions that lack clear human origin or that are merely facilitative or preliminary in character.

This interpretation was upheld in the subsequent revision before the Supreme Court (Rev2. No. 148/2022), which confirmed the appellate court's position by emphasizing that unfinished or ideational scenarios, regardless of their originality, do not fulfill the threshold of protected expression under copyright law. The Supreme Court reaffirmed that authorship must be demonstrably linked to the final form of the work as used, maintaining that only natural persons with an identifiable creative input in the expressive version of the work can be recognized as authors under Article 17.

### 4.2. Authorship, originality, and online dissemination of photographic works

In case P1-263/20[35], the Basic Civil Court in Skopje ruled in favor of the plaintiff, a professional photographer, who sought legal protection after a media outlet published one of his photographs online without authorization. The image in question, taken during a concert in 1988 featuring Branimir "Johnny" Štulić, was reproduced in full within an article published on the website www.off.net.mk, without proper credit or compensation.

The plaintiff substantiated his authorship through multiple means: original negatives, a written statement of authorship, and a confirmation from the Serbian Intellectual Property Office, where the photograph had been deposited. An expert in copyright matters submitted an opinion affirming the photograph's

[34] Ginsburg, J. C., *The Concept of Authorship in Comparative Copyright Law*, DePaul Law Review, *vol.* 52, no. 4, 2003, pp. 1070 – 1071.

[35] Decision is available at http://www.vsrm.mk, last accessed on 14 August 2025.

qualification as a protected artistic work under Macedonian law. The court accepted this expert analysis and held that the photo met the originality threshold required by Article 12 of the Macedonian Law on Copyright and Related Rights. The court's approach reflects the prevailing European doctrinal stance that photographic works achieve copyright protection when they display the photographer's personal creative choices in composition, framing, and lighting, and that negatives or deposit copies serve as strong proof of authorship.[36]

The defendant, a media publisher, argued that the image had merely been hyperlinked and not stored on their server. This line of defense, however, was rejected by the court, which underscored that making copyrighted work available to the public, regardless of the technical method used, falls within the scope of "communication to the public", as defined in Article 37 of the Law on Copyright and Related Rights. The court further referred to relevant provisions of the Berne Convention, which obligate Macedonia to protect foreign and domestic authors equally and to ensure that moral and economic rights are preserved. This interpretation aligns with broader doctrinal understandings of the right of communication to the public, which covers online dissemination methods such as streaming, embedding, and hyperlinking. Under EU law, harmonized by Directive 2001/29/EC[37], the Court of Justice of the European Union has established that hyperlinking may constitute communication to a new public, thereby triggering copyright liability. However, despite significant rulings, legal uncertainty remains regarding when a linked work reaches a new public, creating challenges for users who might unintentionally infringe copyright through linking. Calls for reform emphasize clearer definitions and safe harbor provisions for platforms, reflecting the need to balance rights protection with technological innovation This interpretation is consistent with academic commentary recognizing that online availability, including embedding and hyperlinking, can meet the EU standard for communication to the public.[38]

What stands out in this case is the court's firm position that copyright protection arises at the moment of creation, without requiring formal registration. Moreover, the court reaffirmed that online dissemination, whether by embedding or linking, can amount to infringement if done without consent. The ruling

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[36] Pepeljugoska, A.; Jankoska, A., *op. cit.* (fn. 31), pp. 10 – 11.

[37] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, Official Journal L167.

[38] Quintais, J. P., *Untangling the Hyperlinking Web: In Search of the Online Right of Communication to the Public,* The Journal of World Intellectual Property, *vol*. 21, no. 5, 2018, pp. 385 – 420.

included an award of litigation costs to the plaintiff and reaffirmed the indivisibility of moral and material rights under Macedonian law. The relevance of this case to the broader discussion on AI-generated content lies in the clear legal standard it applies to determine authorship and originality. The court required evidence of human creative input and expressive decision-making to confirm protection, both of which are foundational to the current legal architecture, one that does not, at present, comfortably extend to outputs generated without meaningful human intervention.

### 4.3. Authorship and originality in musical transcriptions

Case P1-1035/13, Basic Court Skopje II[39] concerns a dispute over authorship and copyright infringement, brought by the heirs of a deceased Macedonian musicologist against a well-known performer and producer. At the heart of the dispute was the use of liturgical music, specifically three compositions (Tropár Bogorodichen, Veliko Slavoslovie, and Otca i Sina), in a compact disc titled *Oktoehos*, first released in 1997 and re-issued in 2004. The plaintiffs alleged that the musical material, as transcribed and harmonized by their predecessor, was reused without proper authorization or attribution, and required compensation for both material and moral damages.

The legal foundation of the claim relied on the 1996 Macedonian Law on Copyright and Related Rights[40], particularly Articles 16 and 19, which protect both the economic and moral interests of authors. The plaintiffs argued that the deceased had authored original musical works through his specialized efforts in transcribing and harmonizing medieval church chants from Byzantine neum notation into Western staff notation, a process they claimed constituted protected creative authorship. Although no longer in force, the 1996 Law on Copyright and Related Rights is important because it established from the outset a human-centred model of authorship and originality. This approach carried into later legislation, showing that the exclusion of non-human authorship is not a gap in the current law but a deliberate and continuous principle of Macedonian copyright.

The defendant, by contrast, did not deny using the transcriptions, but contested the scope and nature of the authorial contribution. He claimed the

[39] Available at http://www.vsrm.mk, last accessed on 14 August 2025.

[40] Закон за авторското и други сродни права [Law on Copyright and Related Rights], Службен весник на Р. Македонија број 47/96 [Official Gazette of Republic of Macedonia No. 47/96], from 12 September 1996.

underlying chants were in the public domain and that his work (instrumental arrangements, performance, and overall musical direction) rendered the final compositions distinct and derivative. Importantly, he asserted that he had received oral consent from the deceased and pointed to the co-authorship registrations filed with ZAMP (the Macedonian musical copyrights society), which included both names.

The court's ruling ultimately sided with the defendant, rejecting the plaintiffs' claims for both moral and material infringement. In its reasoning, the court acknowledged the artistic merit and technical sophistication involved in transcription and harmonization, especially as supported by expert opinion from a university professor of music. However, it found that the defendant had not infringed the moral rights of the deceased, as the defendant had, although informally and inconsistently, recognized the contribution of the original author, both through ZAMP filings and written references in distribution materials. The absence of any legal action during the author's lifetime further weakened the claim of unauthorized use.

On the material front, the court found the damages claim speculative. The plaintiffs failed to convincingly establish the number of distributed CDs or the commercial gain from the project, which was largely subsidized by public funds and distributed as a cultural gift. Moreover, the defendant's acknowledgment of co-authorship in copyright registrations complicated the plaintiffs' position of sole authorship.

Crucially, the court emphasized that authorship under Macedonian law presupposes a human, individual contribution that demonstrates a level of originality. While the reasoning in this case is rooted in the Macedonian statutory framework, the court's emphasis on the need for demonstrable human creativity closely parallels the approach taken in other European jurisdictions. Both the United Kingdom and the Court of Justice of the European Union, for example, have consistently required that arrangements or transcriptions show a "modicum of personal intellectual effort" in order to qualify for copyright protection. As certain authors note, this threshold is met only where identifiable creative choices, however minimal, can be discerned in the resulting work.[41]

But the Macedonian court did not explicitly address originality in a doctrinal sense, although it was clear in drawing the line between mere mechanical processing and authorial interpretation. It implicitly accepted that the transcription and harmonization processes could reach the threshold of originality, provided

[41] Pila, J.; Torremans, P., *European Intellectual Property Law*, 2nd edition, Oxford University Press, Oxford, 2019, p. 252.

they reflect the personal imprint of the author, but stopped short of granting exclusive rights where those contributions were either shared, consented to, or remained insufficiently delineated in the dispute. This approach aligns with scholarly analysis that regards musical works as encompassing not only original compositions but also arrangements, adaptations, and editorial interventions, where such contributions manifest the personal intellectual creation of the arranger, moving beyond mere mechanical reproduction of pre-existing material.[42]

This judgment illustrates how Macedonian courts understand authorship as a human-centered and qualitatively original act. While the court recognized the intellectual and artistic labor involved in decoding ancient notations, it relied heavily on practicalities: the presence of consent, co-authorship registration, lack of timely opposition by the original author, and the non-commercial character of the distribution. These factors collectively weakened the claim to exclusive authorship.

For the purposes of this research, the case underscores two essential points. First, the Macedonian legal framework operates with a relatively conservative understanding of authorship, rooted in demonstrable human creativity and agency. Second, even in cases involving high levels of scholarly or artistic transformation, courts remain reluctant to grant exclusivity in the absence of clear contractual arrangements or formal opposition.

By extension, this sets a clear barrier for AI-generated content. If even a complex and interpretive act like musical harmonization must be grounded in recognizable human authorship, AI outputs lacking such a human anchor are likely to fall outside the scope of protection under the current regime. Thus, the case offers a meaningful precedent for assessing the limitations of existing copyright norms and the potential need for a reform trajectory, particularly one that could accommodate user-centered or *sui generis* protections for non-human creative outputs.

### 4.4. Originality in collaborative works and the proof of authorship

Case PI-333/16, Basic Court Skopje 2[43], affirmed by Rev2.br.158/2021[44], Supreme Court of North Macedonia was a civil litigation before the Basic Court Skopje 2 that involved a dispute over copyright authorship and infringement

[42] Rahmatian, A., *The Musical Work in Copyright Law*, GRUR International, *vol.* 73, no. 1, 2024, pp. 21 – 23.

[43] Available at http://www.vsrm.mk, last accessed on 14 August 2025.

[44] Available at http://www.vsrm.mk, last accessed on 14 August 2025.

between an individual music creator (the claimant) and two respondents: an individual artist (a performer) and a legal entity (a media/entertainment production company). The claimant asserted sole authorship over six musical works—*Plata o Plomo*, *Supermen*, *Smoking Weed Every Day*, *Five-O*, *Me Gusta*, and *EU*—and sought injunctive relief against the alleged unauthorized distribution of these works via the YouTube platform and a website under the domain "slatkaristika.mk", operated by the second respondent.

The claimant based his standing on Article 17 of the Macedonian Law on Copyright and Related Rights, asserting that he was the sole author of both music and arrangement, and that moral and economic rights had vested in him upon creation. The works were previously registered with the Serbian collective rights organization, which the claimant used to support his presumption of authorship.

The respondents, however, presented evidence indicating that the works were co-authored, supported by ZAMP registration documents listing both parties and other contributors as authors of music, lyrics, or arrangements, with specified percentages. The respondents argued that the works had been created collaboratively and performed publicly with the claimant's prior participation and knowledge, relying on Article 19 of the same law regarding joint authorship.

The Basic Court refused to grant injunctive relief, holding that the claimant had failed to establish the necessary urgency and *prima facie* legitimacy of the claim. Importantly, the court emphasized that while registration may create a presumption under Article 18, it does not definitively establish authorship, particularly when countervailing registrations and public performance practices suggest shared authorship. The lack of distinguishing proof of sole authorship, such as musicological analysis or exclusive copyright agreements, ultimately weakened the claim. Scholarly commentary supports the view that collective rights registration creates a rebuttable presumption of authorship, but that such a presumption can be overcome by consistent evidence of shared creation and public attribution.[45]

The case proceeded through appellate review and ultimately reached the Supreme Court of North Macedonia (Rev2.br.158/2021). The Supreme Court upheld the lower courts' findings in full. It reaffirmed that there was no infringement of the claimant's moral or economic rights, given that the musical works in question had been uploaded by a third party, not the respondents, and that the registrations with collective management societies consistently listed both the claimant and the first respondent as co-authors. The Court noted that the

[45] Pallas, L. L.; Reese, R. A., *Proving infringement: burdens of proof in copyright infringement litigation*, Lewis & Clark Law Review, *vol.* 23, no. 2, 2019, p. 666.

issue at hand was not the establishment of authorship *per se*, but whether the respondents had infringed the claimant's rights, which had not been sufficiently proven. It further clarified that refusal to grant consent by one co-author must not conflict with the principle of good faith under Article 19(2) of the Law on Copyright and Related Rights, a standard not met by the claimant in this context. The Supreme Court upheld the lower court's finding that the claimant failed to demonstrate exclusive authorship and that the works had been publicly attributed to both parties through ZAMP registrations and distribution materials. Importantly, in applying Article 19(2) of the Law on Copyright and Related Rights, the Court reiterated that a co-author's refusal to grant consent must not contravene the principle of good faith. The comparative copyright doctrine suggests that co-authors are indeed bound by mutual duties of cooperation and good faith. The integrity of joint authorship relies heavily on these principles. However, the potential for abuse of veto rights poses significant risks, which can undermine the collaborative nature intended in such relationships. Legal systems recognize these dynamics and often provide recourse to ensure that co-authors can navigate their rights and responsibilities effectively.[46]

The full trajectory of this case, from the Basic Court to the Supreme Court, reinforces the legal doctrine that authorship under Macedonian law must be substantiated through demonstrable creative input, supported by consistent documentary and public attribution. Notably, the Supreme Court's decision reinforces a cautious stance toward granting exclusive authorship rights in collaborative contexts without strong proof and aligns with the general position that authorship presumes a human creative act.

For this research, which interrogates whether AI-generated works can be accommodated under current copyright norms, this case is instructive. It demonstrates that even human-created works face high thresholds for authorship recognition when collaboration or shared creation is evident. This doctrinal rigidity suggests that AI-generated outputs, lacking the requisite human creative agency, are unlikely to find protection within the current legal structure, unless reformed to allow for user-based or *sui generis* rights models.

[46] Ginsburg, J. C., *op. cit.* (fn. 34), pp. 16 – 17.

## 5. CONCLUSION

The analysis confirms that copyright law, both internationally and in North Macedonia, is built on the premise that authorship requires human originality. This is not simply a doctrinal preference; it is the legal foundation on which protection rests. The reviewed foreign cases illustrate that even when technology plays a significant role, courts still anchor protection to identifiable human input. Without that, copyright does not apply.

Macedonian case law, although limited, is consistent with this approach. The examined judgments demonstrate that courts require concrete evidence of creative contribution. They treat authorship as an individual, demonstrable act, and in disputes over collaboration, they apply a strong presumption of shared authorship. Originality is assessed through the presence of personal choices, not through the mere use of skill or effort. These decisions, although not directly addressing AI, already set a high bar for works created without substantial human involvement.

In this light, the prospect of protecting AI-generated works under current Macedonian law appears remote. If courts require human intellectual creation even in complex interpretive tasks, they are unlikely to extend protection to outputs generated without such a contribution. Comparative debates suggest possible reforms, user-based rights, new categories of protection, or *sui generis* regimes, but these remain theoretical.

For Macedonian law, the realistic path forward is cautious. In our opinion, the immediate need is not to redesign the copyright system, but to develop a clearer understanding of how existing concepts apply when AI is used as a creative tool. This would prepare the legal system for the inevitable moment when a case on AI authorship reaches domestic courts. Only then can informed decisions be made on whether legislative change is necessary, and if so, in what form. On the other hand, a recommendation has arisen from our comparative analyses in this paper. The recommendation is to follow a path close to the Chinese court practice: acknowledge the human effort in creating works with the use of AI, but define clear boundaries. This means protection should apply only where the human contribution is significant, identifiable, and shapes the final output creatively. Such an approach preserves the human-centered nature of copyright while adapting it to the realities of emerging creative processes.

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Sažetak

**Marija Ampovska** *

# LJUDSKO AUTORSTVO U DOBU GENERATIVNE UMJETNE INTELIGENCIJE: DOKTRINARNO I NORMATIVNO ISTRAŽIVANJE MAKEDONSKOG AUTORSKOG PRAVA

*Posljednjih godina sudovi diljem svijeta počeli su se suočavati s pravnim implikacijama sadržaja generiranoga umjetnom inteligencijom, osobito u području autorskog prava. Iako se makedonski sudovi još nisu izravno susreli s takvim pitanjima, samo je pitanje vremena kada će se slični sporovi pojaviti i u našoj jurisdikciji. Ova rastuća međunarodna rasprava poslužila je kao glavna inspiracija za ovaj rad. Struktura rada slijedi jasnu progresiju. Prvo se daje pregled nekih od najrelevantnijih globalnih tendencija, odabranih i interpretiranih iz perspektive autora, kako bi se uokvirila složenost problematike. Pitanje autorstva i autorskopravne zaštite za djela generirana umjetnom inteligencijom razmatra se kroz postojeću sudsku praksu i doktrinarne refleksije iz više pravnih poredaka. Analiza se potom sužava na makedonski kontekst. Izlažu se ključne zakonske odredbe relevantne za autorstvo i autorsko pravo, osobito članci 17. i 19. Zakona o autorskom i srodnim pravima, te se ocjenjuje način njihove interpretacije u sudskoj praksi. Odabrano je i analizirano nekoliko domaćih sudskih odluka koje rješavaju klasična pitanja autorstva, kako bi se razumjelo na koji način suci u Makedoniji definiraju i primjenjuju temeljne autorskopravne koncepte. Završni dio rada usmjeren je prema donošenju zaključaka i pružanju promišljanja o tome kako bi se takvi slučajevi mogli rješavati u bliskoj budućnosti. Otvara se pitanje je li postojeći pravni okvir dovoljno opremljen za suočavanje s djelima generiranima umjetnom inteligencijom te razmatra je li potrebna zakonska reforma, bilo putem nove interpretacije postojećih odredbi bilo putem strukturnih izmjena, kako bi se odgovorilo na ovaj novi izazov.*

*Ključne riječi: djela generirana umjetnom inteligencijom, autorsko pravo, autorstvo, autor, makedonsko autorsko pravo*

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