COPYRIGHT LAW AND ARTIFICIAL INTELLIGENCE: A FRONTIER IN INTELLECTUAL PROPERTY LAW

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ABSTRACT

The emergence of Artificial Intelligence (AI) and generative AI tools, such as OpenAI's ChatGPT, has revolutionized the creation of creative works, raising significant questions regarding copyright assignment for AI-generated outputs. While the Copyright Act protects original literary, dramatic, musical, and artistic works, as well as cinematograph films and sound recordings, the term "originality" lacks a specific definition, leading to evolving judicial interpretations, especially with the advent of new technologies. The notion of 'original work' generally entails that the author has independently created the work with intellect, skill, and labor, though the creative work may sometimes be derived from a pre-existing work. However, mere reproduction of a previous work does not qualify for copyright protection. AI's ability to autonomously generate creative works has challenged traditional notions of authorship and copyright. While computer tools were previously considered mere aids to authors, the emergence of AI has blurred the lines. The Sweat of the Brow Test, a traditional approach to originality, emphasizes skill and labor over creativity. However, this test may not adequately address AI-generated works, where the true origin lies within the AI machinery. The Modicum of Creativity Test, adopted from the US, requires a minimal degree of intellectual creativity for copyright protection. This test was applied in Eastern Book Company & Others v. D.B. Modak & Anr., where the court rejected the Sweat of the Brow Test and adopted the Modicum of Creativity Test. Similarly, in Dr. Reckeweg and Co. Gmbh. and Anr. v. Adven Biotech Pvt. Ltd., the court rejected the Sweat of the Brow Test for a mere compilation of works. The Skills and Judgment Test, as formulated by the Supreme Court of Canada, requires the application of reasonable skill and judgment in creating the work, along with a minimum level of creativity. This approach represents a middle ground between the US and UK approaches to originality. In conclusion, while copyright law requires originality, the current tests for originality may not adequately address AI-generated works, where the origin is not the individual but the AI system. As such, legislators and courts must

consider the intersection of AI and intellectual property laws to ensure fair and effective protection for all parties involved.

Keywords: Artificial Intelligence, Copyrights, Intellectual Property Rights

BACKGROUND

In the rapidly transforming technological space, emergence of Artificial Intelligence and Generative AI tools like the Open AI's ChatGPT, has profoundly altered the way individuals create creative works. Artificial Intelligence is capable of generating creative works and inventions autonomously and in fraction of time that an individual creator would take. As these AI tools continue to improve over time in their efficiency and effectiveness, the critical question of assigning copyrights for AI – generated outputs becomes increasingly pertinent. Intellectual Property Rights regimes worldwide had not foreseen the creation of copyrightable material by entities other than humans, presenting a novel legal challenge.

The Copyright Act[1] protects original literary, dramatic, musical, and artistic works, as well as cinematograph films and sound recordings. Section 13[2] of the Act requires originality, which is not explicitly defined. The concept of "work" is elucidated in Section 2(f)[3], encompassing literary, dramatic, musical, and artistic creations, along with cinematographic films and sound recordings. The lack of a specific definition for "original" has led to judicial interpretations that have evolved over time, becoming increasingly complex with the introduction of new technologies. In common parlance, 'original work' would mean that the author has independently generated the creative work with his intellect, skill and labour but many a times, the creative work of an author may have been derived from a pre-existing work. With regards to the question of originality in cases of derived work, the courts have laid down various tests of originality. Largely, whether derived creative works would be given protection under copyright laws depends on various factors but settled position of law is that a work which is simply reproduction of a previous work will not be allowed protection under any copyright laws.[4]

[1] Copyrights Act, 1957 No. 14, Acts of Parliament 1957 (India)
[2] Copyrights Act, 1957 Section 13, No. 14, Acts of Parliament 1957 (India)
[3] Copyrights Act, 1957 Section 2(f), No. 14, Acts of Parliament 1957 (India)
[4] Macmillan And Anr. vs Suresh Chunder Deb (1890) ILR 17CAL951

ARTIFICIAL INTELLIGENCE AND I.P.R

Section 2(d)(vi) of the Copyright Act entitles the person creating a creative work using computer programs as the author of the work, extending copyright protection to them. For over five decades, computer tools have been utilized without posing a challenge to Intellectual Property Rights (IPR) regimes, as they were considered mere tools to aid authors in generating their work. These tools were not competent enough to independently create creative work. However, with the emergence of Artificial Intelligence and generative AI, the landscape has shifted significantly.

Originality is a prerequisite for seeking copyright protection[5]. If a work is not original and is merely a copy of someone else's original work, it is not eligible for copyright protection. In the case of Ladbroke (Football) Ltd. v. William Hill (Football) Ltd[6], it was established that copyright protection should serve as a form of reward for individuals seeking protection for their original work. The required originality pertains to the expression of thought. The term "original" does not necessitate original or inventive thought but rather that the work should originate from the author and not be a mere copy.[7]

In the absence of explicit definition of ‘original’ following tests of originality have been developed through judicial interpretations –

a. Sweat of the Brow Test
b. Modicum of Creativity Test
c. Skill and Judgement Test

SWEAT OF THE BROW TEST

The Sweat of the Brow Test was first propounded in Walter v. Lane[8] by the English Courts. The basic premise of this test of originality is that the only requirement for originality for the purpose of copyrights is skill and labour while creativity is not a criteria. The ruling stated that the direct transcriptions of Lord Roseberry's speeches in The Times were protected by copyright laws. It emphasized the principle that one should not benefit from another's skill,

[5] University of London Press v. University Tutorial Press, [1916] 2 Ch. 601
[6] Ladbroke v William Hill [1964] 1 All ER 465
[7] Supra
[8] Walter v Lane [1900] AC 539

effort, and expense by copying their work, noting that copyright is not contingent on the originality or literary quality of the content. This principle applies even to mundane information, as seen in the example of a street dictionary. Therefore, if someone chooses to create and publish a volume that lacks any literary or other merit, they are legally entitled to do so and can register their copyright, even if the work is deemed worthless and insignificant[9]. In University of London Press Limited v. Universal Tutorial Press Limited[10], it was held that the requirement of original under copyright law does not pertain to original or novel form of ideas or inventive thoughts but the creative work seeking the protection under the act must not be copied from another work and the origin of the work shall be the author himself.

Thus, the Sweat of the Brow Test argues that 'originality' requirement is only up to skill and labour employed by the author in creating the work irrespective of the fact, whether the work is creative or has literary merit. Employment of Skill and Labour under this test mandates that the work is not copied from another work and should originate from the author.

Courts in India have long followed this test to determine the standard of originality for the purpose of granting copyright protections. In Gopal Das v. Jagannath Prasad[11], the court held that for a work to be protected by copyright, the author must have collected the material with considerable labour, compiled from various sources of work in itself not original. In V. Govindan v. E.M. Gopalkrishna Kone and Another[12], The court ruled that when there is a common source, the individual relying on it must demonstrate that they accessed the common source directly, utilizing their own skill, effort, and intellect, and did not simply copy from it. In C. Cunniah & Co. v. Balraj & Co.[13], The court determined that to secure copyright protection for literary, domestic, musical, and artistic works, the subject matter does not need to be original, nor do the ideas expressed need to be novel. What is essential is the application of original skill or labour in the execution of the work, rather than originality of thought.[14]

SWEAT OF THE BROW TEST AND ARTIFICIAL INTELLIGENCE

Based on the judicial precedents discussed, the principle requirements for determining

[9] Supra
[10] University of London Press Limited v. Universal Tutorial Press Limited [1916] 2 Ch. 601
[11] Gopal Das v. Jagannath Prasad, AIR 1938 ALLAHABAD 266
[12] V. Govindan vs E.M. Gopalakrishna Kone And Anr., AIR 1955 MAD 391
[13] C. Cunniah And Co. By Partners M. ... vs Balraj And Co. By Partners S. Rajaratnam, AIR 1961 MAD 111
[14] Supra

"originality" under the Sweat of the Brow Test include the skill and labour employed by the author, the author being the origin of the work, and the work not being copied from someone else's work. Notably, there is no specific criterion of creativity under this test.

A party seeking copyright protection for AI-generated work may encounter challenges if certain requirements are not met. Typically, in the curation of AI content, the individual provides prompts as inputs to generate output from a pre-programmed library. In this context, the individual acts more as a facilitator rather than the originator of the work. The true origin of the work lies within the AI machinery, rather than with the individual claiming copyright protection. Mere copying of AI-generated work, whether with or without minor alterations, may not satisfy the "Sweat of the Brow Test" requirement for establishing the work's 'originality' under the act. However, the grant of copyright protection to an individual also depends on the manner in which artificial intelligence is utilized. Employing AI to produce complete literary, visual, or audio works would likely violate the requirements of the test. However, using AI tools as software to aid in content curation could meet the test's requirements. In this scenario, the origin of the work shifts to the individual who has applied their skill and effort in curating the content, which is not copied. Consequently, under section 2(d)(vi)[15] of the act[16], the individual may be entitled to claim protection.

MODICUM OF CREATIVITY TEST

The Modicum of Creativity Test was first propounded by the US Supreme Court in Feist Publications, Inc. v. Rural Telephone Service Company[17]. The U.S. test for originality requires not only that there be some amount of independent input by the author, but that the work have a “creative spark” as well[18]. The Court clarified that meeting the originality requirement for copyright protection entails more than showing that a work could have been assembled in various ways. Instead, there must be "at least some minimal degree of creativity" present in the work for it to be eligible for copyright. In Matthew Bender & Company Inc. and Another v. West Publishing Company and Another[19], it was held that the originality requirement means

[15] Copyrights Act, 1957 Section 2(d)(vi), No. 14 Acts of Parliament 1957 (India)
[16] Id. At 01
[17] Feist Publications, Inc., v. Rural Telephone Service Co., 499 U.S. 340 (1991)
[18] Supra
[19] Matthew Bender Co. v. West Publishing Co., 158 F.3d 693 (2d Cir. 1998)

that the work must have been independently created and that it possesses at least some minimal degree of creativity.

Indian courts rigorously followed the Sweat of the Brow Test of the English Courts until the Eastern Book Company v. D.B. Mondak[20], where the Sweat of the Brow Test was discarded and Modicum of Creativity Test was adopted for the purpose of determining 'originality'. The notion of "flavour of minimum requirement of creativity" was introduced in this case[21]. The ruling established that to establish copyright, the standard of creativity does not necessitate that something be novel or non-obvious. However, it does require that there be some level of creativity in the work to qualify for copyright protection. In Eastern Book Company & Others vs Navin J. Desai & Another, D.B. Modak[22], The court ruled that the plaintiffs, who were not the authors of the judgments but had published them first, could not claim copyright in the text of the judgments. The judgments were delivered by the courts and could be published by anyone. The plaintiffs' act of correcting typographical errors, inserting punctuation marks, and assigning paragraph numbers did not grant them the right to claim copyright.

The court noted that most journals assign their own paragraph numbers, which are similar to those of other publishers. Even if the paragraph numbers were different, it would not entitle the plaintiffs to claim copyright in the paragraphs or in the mistakes present in the judgments, which are in the public domain[23]. Thus well settled position of law is that in order to determine a copyrightable works or original literary, dramatic, musical and artistic works etc., the key test to be adopted is that such works should have a modicum of creativity involving considerable skill, labour, capital as held in MacMillan & Co. v. V.K. & J. Cooper[24].

MODICUM OF CREATIVITY TEST AND ARTIFICIAL INTELLIGENCE

For a work to be considered original, it must not only be independently created but must also demonstrate a minimum level of creativity. The court emphasized the concept of 'creative originality' and established a new test to protect creations based on this minimal creativity. This doctrine asserts that originality exists in a work when a significant amount of intellectual

[20] Eastern Book Company & Ors vs D.B. Modak & Anr, AIR 2008 SUPREME COURT 809
[21] Indialaw.com available at https://www.indialaw.in/blog/law/analysis-of-doctrines-sweat-of-brow-modicum-of-creativity-originality-in-copyright/
[22] Supra at 20
[23] Supra at 20
[24] Macmillan And Company Ltd. vs K. And J. Cooper, (1924) 26 BOMLR 292

creativity and judgment is involved in its creation. The standard of creativity does not need to be exceptionally high, but there should be a minimum level of creativity present for the work to qualify for copyright protection.[25]

While AI-generated works may exhibit a degree of creativity as needed, the true origin of these works is not the individual seeking copyright protection; rather, they are essentially copies of AI output. Therefore, such works are likely to fail the "modicum of creativity" test. Furthermore, making minor alterations to AI-generated content without significant skill, effort, and investment by the individual is also likely to fail the test requirements.

Skills and Judgement Test

The Skills and Judgment Test represents the Indian approach to determining 'originality' in works submitted for copyright protection[26]. According to this test, the author must have employed reasonable 'skill and judgment' in creating the work, and the resulting work must possess a minimum level of creativity.[27]

Therefore, for a work to be considered original, two conditions must be met: the author must have applied skill and judgment in creating the work, and the work must contain a minimum element of creativity.

This approach is seen as a middle ground between the two extremes found in the United States (Modicum of Creativity) and the United Kingdom (Sweat of the Brow Test). In the Eastern Book Company and Others v. D.B. Modak & Anr.[28] case, the Delhi High Court scrutinized whether the headnotes of reported cases represented original expression. The court notably cited the Feist[29] decision and embraced a criterion of "modicum of creativity," in addition to the criteria of skill and labor. This case is noteworthy for signalling a change in the Supreme Court's approach to determining the copyright of 'original work.' Furthermore, the 'skill and

[25] Ipandlegalfilings.com available at https://www.ipandlegalfilings.com/evolution-of-tests-of-creativity-in-copyrights/
[26] Robbin Singh, UNDERSTANDING THE CONCEPT OF ORIGINALITY UNDER COPY RIGHT, LAW MANTRA THINK BEYOND OTHERS
[27] Supra
[28] Supra at 20
[29] Supra at 17

judgment' test, as propounded by the Canadian Supreme Court in the landmark case of CCH Canadian v. Law Society of Upper Canada[30], is relevant here.

The Court observed that to qualify as original under the Copyright Act, a work must be created by an author, not copied from another work, and must result from the author's exercise of skill and judgment. This exercise of skill and judgment must not be so trivial that it could be seen as a purely mechanical process. While creative works are inherently original and protected by copyright, creativity is not a necessary condition for a work to be considered original. The key requirement is that the work is the result of the author's exercise of skill and judgment, which is a practical yet equitable standard.[31]

Indeed, the criterion for 'originality' in copyright law is centred around the application of skill and judgment, rather than being solely based on labour. A key requirement is that the work must be independently created by the author and not copied. Additionally, the author's efforts should not be trivial; they should go beyond merely reproducing another's work in a mechanical manner[32]. The variation introduced by the author must be substantial rather than minimal; thus, the requirement of originality is quantitative in nature, necessitating a meaningful level of creativity in the work.

According to this intermediate standard, for a work to be considered 'original,' it must result from the application of both skill and judgment. 'Skill' refers to the use of one's knowledge, developed aptitude, or practiced ability in creating the work, while 'judgment' refers to the use of one's discernment or ability to form an opinion by comparing different options in creating the work[33]. It was therefore concluded that merely collecting material and adding inputs to raw text does not imbue the work with the minimum required level of creativity, as the skill and judgment required to produce such work are trivial. To establish copyright, the standard of creativity does not require something to be novel or non-obvious; rather, it necessitates a certain level of creativity in the work to qualify for copyright protection.[34]

[30] CCH Canadian Ltd v Law Society of Upper Canada, [2004] 1 SCR 339
[31] Supra at 20
[32] Krishna Hariani & Anirudh Hariani, Analyzing “Originality” in Copyright Law : Transcending Jurisdictional Disparity, 51 IDEA, 491 (2011)
[33] Adarsh Ramanujan, Prateek Bhattacharya & Esheetaa Gupta, Infringement Analysis in Copyright Law, (2011) http://www.lakshmisri.com/Uploads/MediaTypes/Documents/WHITE_PAPER_IP_Infringement_Analysis_Esheeta_REVISED.pdf
[34] Supra at 20

The principle established by the Supreme Court in the Eastern Book Company case has been upheld by the Division Bench of the Delhi High Court in the case of Syndicate of Press of the University of Cambridge on behalf of the Chancellor Masters and School v. B.D. Bhandari & Anr.[35]. In this case, it was affirmed that the author's skill and judgment, along with a minimal standard of creativity, are essential for establishing copyright.

Furthermore, the case of Dr. Reckeweg and Co. Gmbh. and Anr. v. Adven Biotech Pvt. Ltd[36]. is noteworthy. In this case, the plaintiff's claim was rejected as their work was deemed to be a mere compilation. The Delhi High Court completely rejected the notion of the doctrine of sweat of the brow in this instance and relied on the Eastern Book Company[37] case in delivering its judgment.

CONCLUSION

Section 13 of the Copyrights Act requires 'original' work only to be granted copyright protection but in absence of the explicit definition of 'original' the courts have propounded various tests to determine standards of originality. However, none of the tests render individual as a recognized author of AI generated work. The dividing line for the purpose of assigning authorship to individuals can be deducted down to origin, spark of creativity and employment of skills, judgement and labour. However, in case of AI generated work, the origin is not the individual but the AI system. Individual here acts only as a facilitator of the work and not the creator. Individual supplying prompts to seek out creative work and seeking a copyright claim on a copy of it fails all the tests for standards of originality. The authorship can even not be attributed to the AI system as well. In Stephen Thaler v. Shira Perlmutter, Register of Copyrights and Director of the United States Copyright Office[37], the principal issue of whether work autonomously generated by an AI system is copyrightable in the United States was discussed and decided upon. The court concluded, after careful deliberation, that the Copyright Office was correct in denying copyright registration for a work created without any human involvement.[38][39]

[35] Syndicate of The Press of The University of Cambridge v. B. D. Bhandari &anr., 185 (2011) DLT 346
[36] Dr.Reckeweg and Co. Gmbh. and Anr.Vs.Adven Biotech Pvt. Ltd, MANU/DE/0961/2008
[37] Supra at 20
[38] Stephen Thaler v. Shira Perlmutter, Register of Copyrights and Director of the United States Copyright Office Civil Ac on No. 22-1564 (BAH).
[39] Supra at 38

In Mazer v. Stein[40], it was established that for a work to be eligible for copyright protection, it must be original, meaning it must be the author's tangible expression of ideas. Similarly, in Goldstein v. California[41], "author" was defined as an "originator," or "he to whom anything owes its origin." These cases demonstrate that authorship is fundamentally tied to acts of human creativity, and courts have consistently refused to acknowledge copyright in works created without any human involvement. Thus it is imperative that the legislators consider the issue of interaction of Artificial Intelligence and IP laws.

[40] Mazer v. Stein 347 U.S. 201, 214 (1954)
[41] Goldstein v. California 412 U.S. at 561 (quo ng Sarony, 111 U.S. at 58).