"Artificial Intelligence And Intellectual Property Rights: Legal Challenges And The Future Of Innovation"

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Abstract

This composition investigates the impact of artificial intelligence(AI) on intellectual property(IP) rights, addressing challenges in power and authorship of AI-generated creations while exploring legal and ethical dilemmas in traditional IP disciplines. It offers strategies for navigating these complications, drawing on legal precedents, transnational agreements, and policy recommendations. The exploration emphasizes the critical need for legislative updates to address these challenges effectively. Recommendations include the enactment of innovative indigenous vittles, streamlining intellectual property(IP) legislation to exhaustively encompass AI-related issues exhaustively, and championing for effective judicial intervention. By enforcing these strategies, Sri Lanka can foster a harmonious concurrence of AI and IP, ensuring the protection of intellectual property rights while stimulating invention in the AI era.

Keywords - Artificial Intelligence (AI), Intellectual Property Rights (IPR), Legal Framework, Copyright, Patent Law, AI-generated Content, Legal Challenges, Innovation & Law, Ownership of AI creations, WIPO (World Intellectual Property Organization)

Introduction to AI and Intellectual Property Rights Challenges

The arrival of artificial intelligence (AI) technology has brought about a new period of change, significantly impacting all angles of society, including the realm of intellectual property(IP) rights. As AI systems advance, they're more suitable to induce original works of art, music, and literature, blurring the distinction between mortal and machine creation. The emergence of AI-generated compositions presents intricate challenges regarding power, authorship, and the acceptability of being intellectual property fabrics in securing and governing these workshop. To gain a comprehensive grasp of the deep counteraccusations of artificial intelligence(AI) on intellectual property(IP), policymakers, legal interpreters, and stakeholders must retain a thorough appreciation of its complications and challenges. In the period of artificial intelligence, effectively managing the complications of securing intellectual property necessitates a thorough appreciation of the legal, ethical, and realistic confines of AI- propelled progressions. In the face of the impulsiveness of actuality, it's imperative to strike a nuanced balance between guarding intellectual property rights and encouraging invention.

This exploration investigates the challenges and borders faced by intellectual property rights as a result of artificial intelligence (AI), with the ideal of clarifying the difficulties and broadening the scope of securing intellectual property. This composition offers a comprehensive analysis of the growing sphere of intellectual property(IP) as it relates to artificial intelligence(AI). It investigates AI-generated creations and evaluates the goods of AI on well-established intellectual property disciplines, including trademarks, imprints, and patents. likewise, it analyzes the legal and ethical ramifications of advancements enabled by artificial intelligence, furnishing perceptive insights on the complex matters of power, authorship, and societal impact. Central to this conversation is the vexing question of determining due power of generated workshop, a question aggravated by the intricate interplay between mortal agency and machine affair. While AI systems retain the capacity for independent generation, they remain reliant on mortal programming and input, thereby egging a abecedarian inquiry into the locus of power whether it resides with the AI system itself, its mortal programmers, the realities that plant it, or a combination thereof(Hristov, 2016). Legislative efforts to address this issue are met with considerable complexity, as substantiated by corner cases similar as The Commercial Bank of Ceylon v the Director General of Customs and others, where the delineation of power was significantly told by empowering agreements

The determination ofco-authorship or secondary creation status is contingent upon nuanced legal delineations and cooperative dynamics(Biswas & Chutia, 2023). also, the discrimination between AI and conventional intellectual property(IP) disciplines presents nuanced challenges. Patents, vital in securing intellectual property rights, face hurdles in assessing the patentability of AI- generated inventions and discerning the extent of mortal donation to the inventive process. Brand laws, designed to cover erudite workshop, defy dilemmas in determining eligibility for authorship and procurement amidst the proliferation of AI- generated content(Son et al., 2022; Katyal & Kesari, 2020). Beyond these legal complications, broader ethical enterprises impend large in the realm of AI- driven invention. Issues of data power rights, sequestration preservation, and algorithmic bias bear the establishment of robust nonsupervisory fabrics and ethical norms. visionary measures, similar as inclusive data collection and transparent algorithmic processes, are essential in mollifying discriminative issues and upholding societal values(Paunov et al., 2019; Tischbirek, 2020). To answer these questions, this composition analyzes applicable legal precedents, transnational agreements, and policy developments to propose efficient approaches for coordinating the protection of intellectual property(IP) with the imperative to promote invention in the age of artificial intelligence(AI). The primary ideal of this composition is to make a educational donation to the ongoing discussion on intellectual property rights through an in- depth analysis of the particular difficulties presented by AI- generated workshop and an evaluation of the broader ramifications of invention propelled by AI. Through embarking on this undertaking, the ideal is to foster an each- encompassing appreciation of the dynamic correlation between intellectual property(IP) and artificial intelligence(AI), while also laying the root for posterior exploration and the development of programs .

Literature Review

1. **Emergence of AI in Creative and Inventive Fields:**
The rise of AI has significantly impacted areas traditionally governed by human creativity and innovation, such as art, music, and software development. Scholars like Ryan Calo and Pamela Samuelson have questioned how existing IP laws can adapt to scenarios where the "creator" is a machine.

2. **Current Legal Frameworks and Gaps:**
Traditional IP laws, particularly in copyright and patent regimes, were designed with human authorship in mind. Literature such as the WIPO issue papers and academic reviews from Harvard and Stanford Law Schools discuss the ambiguity in attributing rights to AI-generated outputs. Courts in the US, UK, and EU are increasingly encountering edge cases where the existing legal norms struggle to apply AI-generated content.

3. **Ownership and Liability Concerns:**
The literature identifies a major concern who owns the rights to an AI's output? Some scholars argue for attributing rights to the AI's user, while others push for treating the AI as a mere tool, akin to a camera or a paintbrush. This debate becomes even more complex in collaborative environments where AI and humans co-create content.

4. **Comparative International Perspectives**:
Different countries are adopting varying stances. For example, the US Copyright Office has denied registration to works created solely by AI, whereas jurisdictions like Australia and New Zealand have started to explore hybrid models. Scholars emphasize the need for a harmonized global approach.

5. **Ethical and Philosophical Underpinnings:**
There is an emerging body of interdisciplinary work that blends legal theory with ethics and philosophy, questioning whether recognizing AI as an "author" undermines human creativity or whether new legal categories are needed.

Objective of the Research

The primary objective of this research is:

To explore and analyze the challenges posed by the integration of Artificial Intelligence into the current framework of Intellectual Property Rights, focusing on legal ambiguities, ownership issues, and the adaptability of existing laws.

This paper aims to:

- Examine the adequacy of current IPR laws in dealing with AI-generated creations.

- Analyze real-world legal cases and international responses to AI-related IPR issues.

- Propose potential legal reforms or frameworks to better accommodate the evolving role of AI in innovation and creativity.

Ownership of AI-Generated Works

Ownership controversies between mortal generators and AI inventors arise as AI systems come more independent in generating precious intellectual property. AI Systems Have formerly Demonstrated Intelligence, Creativity, and Inventiveness AI is a branch of computer wisdom trying to replicate mortal intelligence in computer systems. The central pretensions of AI include logic, knowledge, planning, literacy, natural language processing(e.g., understanding and speaking languages), perception, and the capability to move and manipulate objects.13 While some question the capability of machines ever to attain the same intelligence of mortal beings, AI has made substantial way in mindfulness, memory, literacy, expectation, and experience, hallmark characteristics demarcating knowledge. No matter the philosophical arguments, it's quite possible that AI could soon develop a cure for certain types of cancer or write the coming great American novel. moment, AI is being used in major exploration hospitals, in the

entertainment assiduity, and across the publishing world. A central issue is whether the person using the AI tool or the AI inventor(who programmed and designed the system) should hold the power rights to the performing creations. Traditionally, brand and patent laws have granted rights to the human who produces a creative work or invention. still, AI complicates this frame since the creative or inventive act is frequently automated, taking minimum to no direct mortal input at the creation stage. Courts have yet to set definitive precedents in this area, but legal scholars suggest that reforming IP laws could involve defining power grounded on the extent of mortal intervention in the creation process, or establishing participated power models that fete benefactions from both inventors and druggies. similar changes would clarify rights and help avoid prolonged controversies between mortal generators and AI inventors.
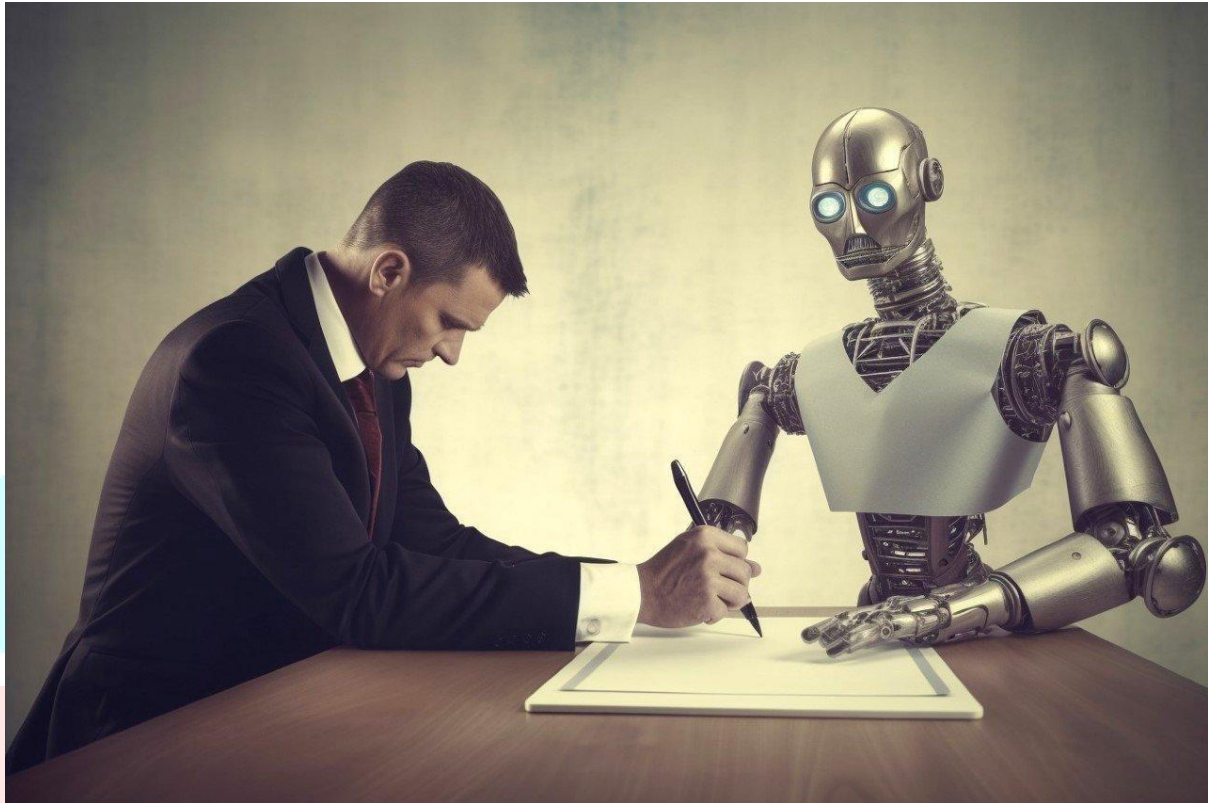
Copyright issues in AI- generated content

The rise of AI- generated workshop has presented unknown challenges to copyright law, which traditionally assumes that workshop are created by humans. Brand protection generally applies to" original workshop of authorship," and the law is designed to cover the rights of generators by giving themcontrol over the reduplication and distribution of their work. still, AI systems, similar as neural networks and generative inimical networks, cannowproduce content singly, from art and literature to music, posing critical questions about how copyright laws apply to these machine- generatedoutputs(Kaplan & Haenlein, 2019). In utmost authorities, brand law requires mortal authorship, which raises immediate challenges for AI- generated workshop. For illustration, the U.S. Copyright Office has stated that" workshop produced by a machine or bare mechanical process that operates aimlessly or automatically without anycreative input or intervention from a mortal author are n't registrable"(U.S. Copyright Office, 2019). This position has led to situations whereAI- generated workshop may not qualify for brand protection, as they warrant the mortal authorship element

United States Copyright Law Does Not Fete Nonhuman Authors Axiomatically. The Copyright Office does n't allow fornon-human authors, no matter how smart an AI may be.49 The Brand Act of 1976(and former Brand Acts of 1790 and 1909) provides that brand power " vest originally in the author or authors of the work, " remaining quiet on the description of " author " in 101, which contains all other delineations under the Act.51 nonetheless, back in 1956, when Klein and Bolitho tried to register the computergenerated song Push Button Bertha, the Copyright Office rejected them out of hand, instructing them that no bone

had ever registered music written by a machine ahead. By 1973, this was fortified into the practices of the Copyright Office, similar that copyrightable workshop must owe their origin to a " mortal agent. " This remains the practice of the Copyright Office moment. While no unequivocal reason has been given for this harmonious anticipation that authors be mortal, it appears that courts put a heavy weight on the idea of alleviation – presuming it to be uniquely mortal. In Burrow Giles Lithographic Co. v. Saron, the court defined the author as " he to whom anything owes its origin; originator; maker; one who completes a work of wisdom or literature. " also, in Bleistein v. Donaldson Lithographing Co., the court held that the author's unique personality and response to nature is the substance of a copyrightable work. ultramodern brand law draws from the Supreme Court case of Feist Publications, Inc. v. Rural Telephone Service Co., Inc. that requires a copyrightable work to retain " some creative spark. " also, as Justice O'Connor penned, " the sine qua non of brand is originality(which) must be original to the author. " therefore, the aspects of originality and creativity are critical to the question of authorship, and if we define similar aptitudes as simply mortal, also AI can noway be an author.

As early as 1965, the Copyright Office was brazened with issues related to questions of computer authorship, but similar problems were eventually dismissed out of hand. That time, several people tried to register workshop at least incompletely penned by computers. To address the problem, Congress created the National Commission on New Technological Uses of Copyrighted Works(CONTU) to study the impact of new technologies on brand law, including the creation of workshop by computer systems. CONTU's final report, published in 1978, matter- Offaly concluded that it would be insolvable for workshop to be created singly by computers as(1) computers are nothing further than unresistant tools of creation;

(2) the development of AI is too academic to raise enterprises; and(3) there's no reasonable base to believe that a computer contributes the necessary " authorship to a work produced through its use. " These conclusions feel to be grounded on the same logic that the courts applied generally to brand the " inventive spark " needed for brand was unnaturally missing from computer systems, and similar capabilities are unique to humans.

The " Monkey selfie " case

Between 2011 and 2018, a series of controversies took place about the brand status of selfies taken by Celebes crested macaques using outfit belonging to the British wildlife shooter David J. Slater. The controversies involved Wikimedia Commons and the blog Techdirt, which have hosted the images following their publication in journals in July 2011 over Slater's expostulations that he holds the brand, and People for the Ethical Treatment of creatures(PETA), who have argued that the brand should be assigned to the macaque.

Slater has argued that he has a valid brand claim because he finagled the situation that redounded in the filmland by travelling to Indonesia, befriending a group of wild macaques, and setting up his camera outfit in such a way that a selfie might come about. The Wikimedia Foundation's 2014 turndown to remove the filmland from its Wikimedia Commons image library was grounded on the understanding that brand is held by the creator, that anon-human creator(not being a legal person) can not hold brand, and that the images are therefore in the public sphere.

The Court's Decision

In January 2016, the court ruled against Naruto, granting a motion to dismiss. During oral argument, the judge, William Orrick, conceded that in his view, his hands were tied by prevailing morals " I'm not the person to weigh into this, " Orrick said from the bench, suggesting that if the political branches wanted to clarify that creatures have the right of brand power, " they're free, I suppose, under the Constitution, to do that. " In his decision, published on January 28, 2016, Orrick developed on his view that anyhow of the plain textbook of the law, he'd not grant creatures affirmative legal rights absent unequivocal language that " substantiation(s) congressional intent to confer standing on creatures. " In his view, the bare fact that the law makes " no citation of(inhuman) creatures anywhere in the Act " was sufficient.

9th Circuit Decision and agreement

In September 2017, following the complainant's appeal and oral argument before the U.S. Court of prayers for the 9th Circuit, the parties agreed to a agreement. Under the terms of the agreement, Slater agreed to contribute 25 of unborn gross profit of the images taken by Naruto to charitable associations that cover Naruto, his community, or their niche. As part of the agreement, the parties asked the court to drop the action and vacate the decision. The parties released a common statement stating the following

" PETA and David Slater agree that this case raises important, cutting- edge issues about expanding legal rights for inhuman creatures, a thing that they both support, and they will continue their separate work to achieve this thing. "

The conclusion to be drawn is that the Copyright Office and courts demand creativity — mortal creativity. Under current United States brand law, if a mortal creates a work, it may be copyrightable.74 If a computer creates a work, it is n't copyrightable. The paradoxical question is therefore whether two identical workshop, one created by a mortal and the other created singly by an AI, would be treated else. The answer appears to be clear yes. Applying the environment, the history, and the legal analysis of the Monkey Selfie case, autonomously created AI workshop would be rejected by the Copyright Office, just as it rejected Push Button Bertha back in 1956. There appears to be a deliberate incuriosity to the realities of AI in 1956 versus AI in 2018.

Understanding Copyright Law In India

India's brand law is primarily governed by the Copyright Act, 1957, and posterior emendations, most specially the Brand(Correction) Act, 2012. The Act provides protection for original erudite, cultural, dramatic, musical, and cinematographic workshop, as well as sound recordings and computer programs. Brand is granted to the author or creator of an original work, giving them the exclusive right to reproduce, distribute, and modify the work, among other rights.(2) still, the Act's language focuses on mortal authorship, which raises challenges in the environment of workshop generated by Artificial Intelligence(AI).

Crucial vittles of the Copyright Act, 1957

The Copyright Act defines an" author" as the person who creates the work.(3) For erudite, dramatic, and musical workshop, the author is generally the person who has conceived the work. In the case of photos, the person who captures the image is regarded as the author. also, for cinematograph flicks, the patron is considered the author. This clear criterion of authorship assumes that the creator is always a mortal being.

One of the central tenets of brand law in India is the demand of originality. Section 13 of the Act states that brand subsists in original workshop, which has been interpreted to mean that the work must appear from the author and involve a minimum position of creativity. This interpretation, supported by Indian judicial precedents, further complicates the criterion of brand to workshop generated by AI, as machines warrant the conscious intent or creativity associate with mortal generators.

**Copyright in Works Created by AI**

The rapid-fire elaboration of AI technology has led to the creation of workshop with minimum or no mortal intervention, similar as music compositions, oils, and erudite textbooks generated by machine literacy algorithms. Indian brand law, still, does n't presently address how to handle similar workshop. Since the Act's description of an author relies on mortal creativity, works generated entirely by AI do n't fall neatly within the compass of brand protection.

The question of whether AI can be considered an author or hold brand is unsettled in India. Encyclopedically, this issue has sparked debates, with some countries introducing vittles to address AIgenerated workshop. For case, UK brand law includes vittles for computer- generated workshop, granting authorship to the person who made the arrangements necessary for the creation of the work. Indian law, still, lacks similar vittles, leaving a legal gap for AI- generated workshop.

Should AI Be Considered an Author?

The question of AI as an author extends beyond legal interpretation and into philosophical and ethical considerations. AI lacks the attributes generally associated with authorship, similar as intention, knowledge, and creativity in the mortal sense. Machines are programmed to learn patterns and induce labors grounded onpre-existing data, but they do n't retain independent study or creative will.(12) These factors suggest that AI is further of a tool than a creator, making it delicate to justify the criterion of brand power to a machine.

Attributing brand to AI could also produce practical and legal complications. For case, if an AI system holds brand, who would apply it? Machines do n't have legal personality, and granting them power rights would bear a significant redefining of legal principles. In similar cases, the brand could rather be attributed to the mortal driver, programmer, or the reality that owns or develops the AI system.
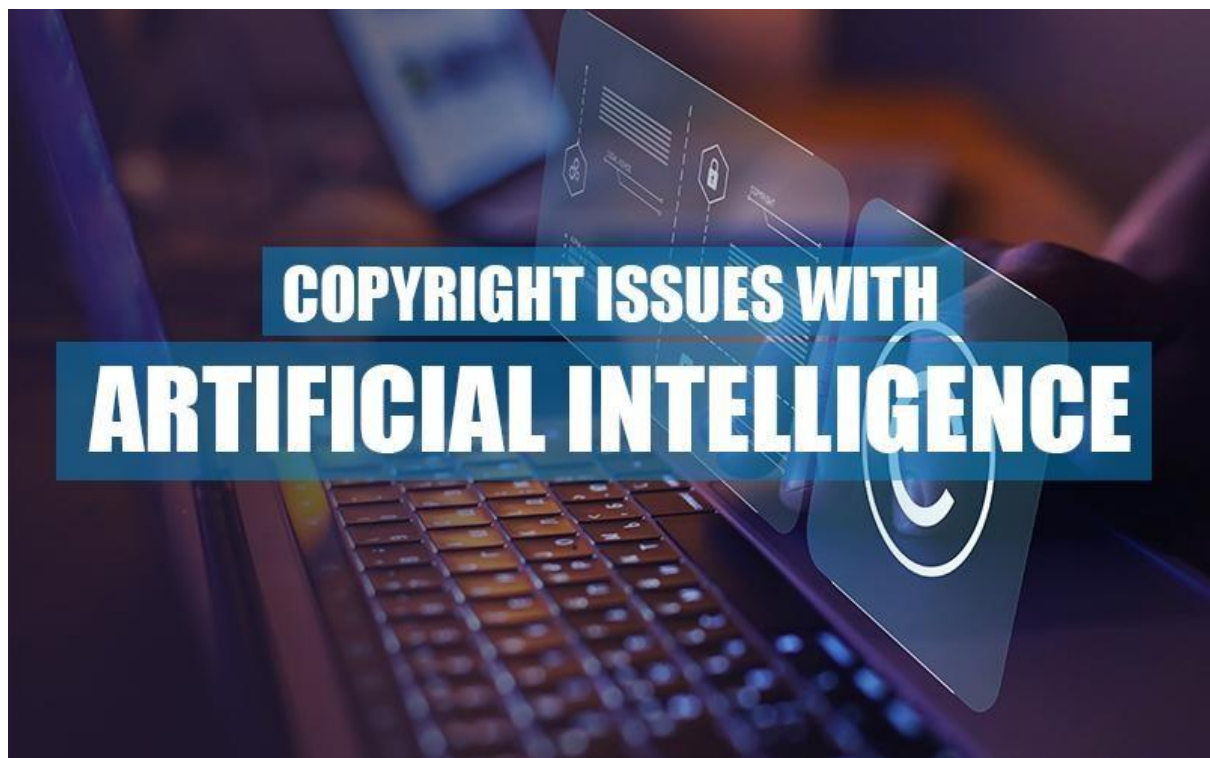
Possible results for AI- Created workshop in India

One possible result within the Indian environment is to follow the UK's model, attributing brand to the person or reality responsible for making the arrangements necessary for the AI to produce the work. This could involve inventors, programmers, or indeed companies that fund the development of AI systems. Alternately, India could develop a new licensing system specifically for AI- generated workshop, allowing generators to retain some rights over the affair while feting the unique nature of machine- generated

Given the rapid-fire elaboration of AI and its adding   part in creative diligence, Indian lawgivers will need to address these issues through legislative reform. This will insure that both mortal creativity and AI invention are adequately defended within the frame of brand law.

International Approaches And Their Influence On Indian Law

The question of how to address brand in workshop generated by Artificial Intelligence(AI) has provoked different responses across legal systems worldwide. With AI playing an decreasingly prominent part in generating creative workshop, countries have espoused varying approaches to determine who, if anyone, holds brand for similar workshop. India's being brand frame, embedded in the Copyright Act, 1957, presently does n't address these complications. still, global trends offer precious perceptivity into implicit pathways India could borrow to regulate AI- generated workshop.

The European Union Copyright Directive and AI

The European Union(EU) also prioritizes mortal creativity in brand law. The EU Directive 2019/790 on Brand and Affiliated Rights in the Digital Single request highlights the need for mortal intervention in creative processes to claim brand.(15) The directive primarily focuses on icing the protection of generators, particularly in the environment of digital platforms, but has not yet addressed the part of AI- generated workshop in detail. still, the emphasis on mortal creativity suggests that AI- generated workshop, devoid of mortal intervention, would not be eligible for brand protection within the EU.

The EU's focus on mortal authorship is in line with the principles of the Berne Convention for the Protection of Literary and Cultural workshop, to which India is also a signatory.(16) This transnational convention, which forms the base of brand law in numerous authorities, underscores the protection of workshop penned by humans. The alignment between the EU's legal principles and India's transnational

scores under the Berne Convention may lead India to borrow a analogous position, defying the extension of brand to AI- generated workshop without mortal involvement.

The United Kingdom A More Flexible Approach

The United Kingdom offers one of the more flexible legal fabrics regarding AI- generated workshop. The Brand, Designs and Patents Act, 1988(UK) includes vittles for" computergenerated workshop," defined as workshop generated by a computer in circumstances where there's no mortal author. Under this governance, the person who makes the arrangements necessary for the creation of the work is supposed to be the author.(17) This approach provides a result for feting the benefactions of individualities or realities that use AI to induce creative workshop, indeed if they do n't directly produce the content themselves.

India could draw alleviation from the UK model by attributing brand to the person or reality responsible for making the arrangements necessary for the AI- generated work, similar as the inventors or programmers behind the AI system. This approach would fete the significance of mortal input in the AI creation process without demanding to extend brand to the AI itself.

Patentability of AI- constructed creations

Technological development in general and artificial intelligence(AI) in particular have caused abecedarian changes in contriving processes. For illustration, the mortal genome took 10 times and three billion bones to sequence back in 2003; estimates in 2013 were that the cost would be 1000 bone and the time to do it one week.1 Due to rapid-fire advances of technology, AI systems are also decreasingly able of substituting mortal imagination in the contriving process, therefore generating inventions that have little mortal input. In fact, artificial neural networks can autonomously carry out problem- working and induce ideas that constitute results to specialized problems. thus, where an AI is involved, odds are that contriving becomes hastily, unburdened with mortal bias and conceivably cheaper. The easiness of contriving brought by AI may lead to an increase of patenting exertion, which might in turn lead to low quality patents, patent flooding and patent trolling(i.e., the exertion carried out by realities that patent inventions not to exercise or make the invention, but rather to make plutocrat by erecting patent portfolios and chancing interpreters that may be infringing their patents). In other words, if AIs can autonomously orsemi-autonomously induce a large number of inventions at a fairly low cost, patent programs might need to be recalibrated. The abecedarian interests in patent law might need to be considered and rebalanced. utmost patent laws bear that inventions be new, able of artificial operation, and involve an inventive step in order to be granted a patent. Out of the conditions for patentability, the inventive step ornon-obviousness is the most delicate to assess, both in proposition and in practice. According to the passages agreement and other public patent laws, an invention is needed to fulfill the following necessary criteria to qualify for a entitlement of a patent-

Patentable Subject- Matter

An invention needs to meet norms set forth by patent laws to admit patent protection. The ineligible subject matter makes the patent operation rejected.

Novelty

The invention should be new or new and not formerly in actuality.

Inventive step ornon-obviousness

It makes it necessary for an invention to have an inventive step, bare changes in the previous art would not serve. It should n't be egregious to the person professed in the art.

Artificial operation

The invention should have some artificial mileage to be used commercially and have some profitable significance.

Issues in the patentability of AI inventions

To know about the patent eligibility of AI inventions, we will first look into major issues that have been raised worldwide with the increase in AI inventions.

Subject- matter eligibility

The subject matter of AI inventions becomes ineligible to get patent protection due to the strict laws applied by colorful countries.

Inventive Step

Inventive step gives significance to a person professed in the art. But if AIs come more knowledgeable and professed in the area, it's unclear how a mortal patent monitor would be suitable to assess the obviousness of an AI's invention. The public patent laws and the passages agreement requires the innovator to be a legal person or a mortal being. AI is neither a legal person nor a mortal being. therefore, AI is floundering to come an innovator in a patent operation.
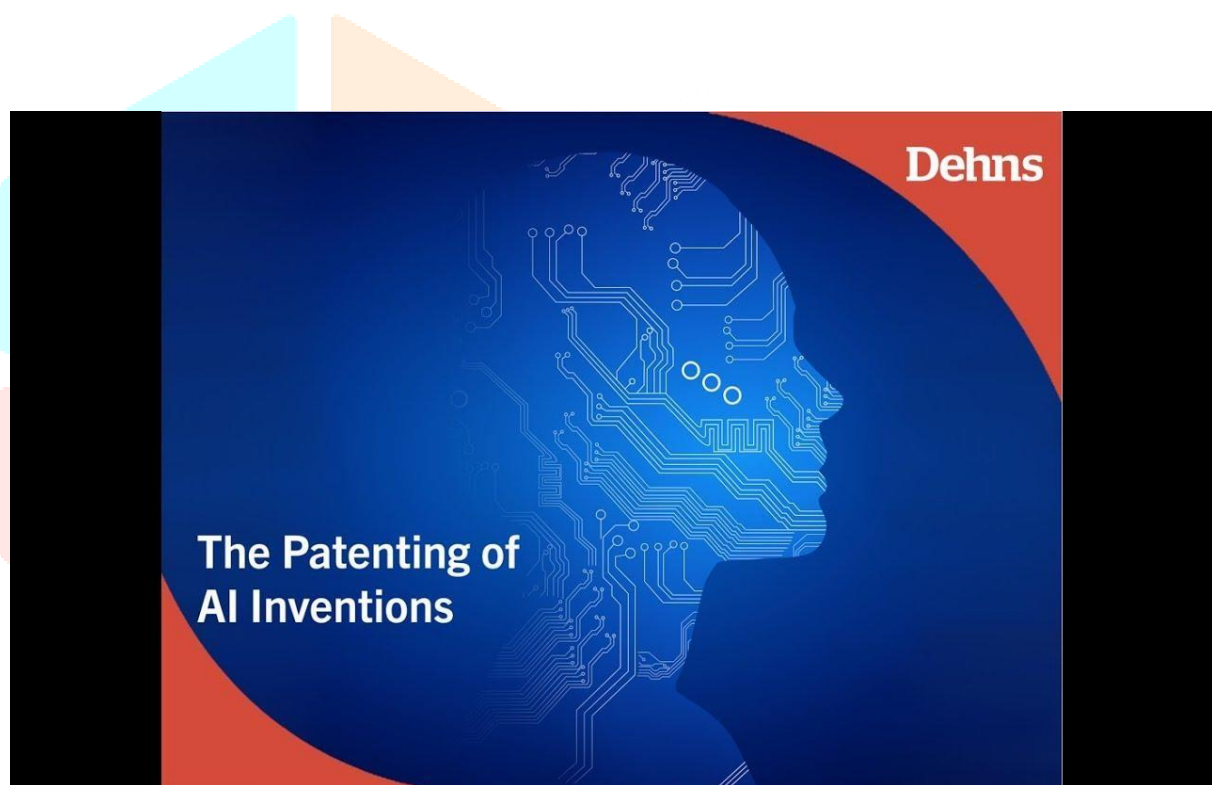
Treatment of AI Inventions in different authorities

US

The U.S. patent law, 35 U.S.C. S/ 101 defines patent- eligible subject matter as including " any new and useful process, machine, manufacture, or composition of matter, or any new and useful enhancement thereof ". It says that fine models and algorithms arenon-patentable. Except for the algorithm, if it has a practical operation, it's considered patentable.

Exceptions from patent eligibility have been defined over the times by the courts, which comprise laws of nature, natural marvels, and abstract ideas; the ultimate is particularly applicable to computer- enforced inventions or AI inventions. In 2019, USPTO proposed a Revised Patent Subject- Matter Eligibility Guidance to conduct a subject- matter eligibility test for patentable inventions grounded on Alice Case guidelines, appertained to as the Alice test. In Alice Test, a claim directed to an abstract idea(fine

generalities, styles of organizing mortal exertion, and internal processes) may avoid rejection if the claim recites that fresh rudiments quantum to significantly further than the judicial exception.

EU

According to Composition 52(2)(c) of the European Patent Convention(EPC), computer programs are barred " as similar " from patent protection. utmost of the AI inventions include computer programs and get filtered from being patent eligible through this composition of EPC. either, inventions involving software are n't barred from patentability as long as they've a specialized character. Under Composition 52(2) and(3) EPC, AI inventions not to be barred from patentability. They must fulfill the patentability conditions of novelty, inventive step, and vulnerability of artificial operation(Composition 52(1) EPC). The specialized character of the invention is significant when assessing whether these conditions are satisfied.However, it can qualify for a entitlement of a patent under EPC, If the AI invention has significant specialized character.

Japan

According to Japan Patent Office(JPO), AI guidelines, with a minor revision in the algorithm using machine literacy or deep literacy to achieve a better result, are just viewed as a routine upgrade unless it shows that this system was noway applied ahead. therefore, AI invention needs to show that system was unknown in all the previous art and that it is n't just an enhancement to get a patent operation accepted in Japan.

India

In India, Section 3(k) of the Indian Patent Act, 1970 countries, " fine or business system or a computer program per se or algorithms " aren't inventions. There's an absolute ban on the patentability of algorithms and computer programs unless they produce a specialized effect or specialized donation. AI invention should show a significant specialized effect, to get patent operations considered in India.

For illustration, the Indian Patent operation(IPA) 3323/ CHENP/ 2012 in which a system and system to model and cover an energy cargo had been granted a patent upon a demonstration of the specialized effect of reducing the energy consumption of an air exertion system.

In discrepancy, an operation for a computer- related invention got rejected in IPA 8383/ DELNP/ 2009 for a machine- to- machine communication platform that transfers medical data. Indian Patent Office was undecided by the specialized effect handed by the aspirant, who claimed that it was an effective and secure system of adding up electronic case records.

therefore, the U.S. patent law gives further significance to the practical operation to be tested by the subject matter eligibility test. On the other hand, EPC imparts significance to the specialized character of AI inventions akin to the specialized effect given precedence in India.

THE DABUS CASE

The affluence of AI in colorful businesses intricate has forced the companies to reevaluate the base of a business and change its station towards further prospective business strategy including invention from AI. The bigger issue comes up when AI itself becomes the innovator or author. This write- up will aim to claw around the bigger issue of whether an AI could be credited as an innovator in the light of the Dabus case and how this case was a missed chance to develop a justice of this contentious issue. The case of Stephen L Thaler v. Comptroller General of Patents, Design and Trade Mark(1) is the rearmost famed case of United Kingdom(' UK'). It starts from two patent operations, GB 1816909.4 and GB 1818161.0, independently filed by Thaler in his name, in the United Kingdom Intellectual Property Office(' IPO') for the entitlement of patents. The operation specifies that Thaler was n't an innovator, which is possible as Section 30(2) of the Patents Act, 1977(' the Act') states that the right to apply for a patent is transmittable. IPO latterly notified Thaler to file the statement of innovator- boat and the right to grant patents pursuant to Section 13 of the Act which was Patent Form 7(3). Thaler filed Patent Form 7 where he stated that the innovator is none other than an AI named Device for the Autonomous Bootstrapping of Unified Sentience(

' DABUS') and since he's the proprietor of the AI is entitled to gain the right to grant of the patents. To put it simply, Dabus is the innovator, and Dabus is possessed by Thaler. Due to this power of Dabus by Thaler, Dabus has transferred the right to grant patents to Thaler. So innately, the contention assumes that Dabus is entitled to have patents and hence, it can transfer it to its proprietor, Thaler. This essential supposition put in the case has caused the riddle that whether an AI can be granted a patent, leave alone transferring it. The decision of IPO was negative, which was appealed to the High Court of England and Wales, Special Patents Court which upheld the IPO's decision. A analogous matter was also been raised in the European Patent Office as well as the United States Patent and Trademark Office but it entered the same fate. For our discussion, the author will be confined to the decision of the Special Patents Court of the High Court of England and Wales and will assay the situation in the light of the logic given by the High Court. The author tried to claw into colorful legislations and ended up getting only one provision that does n't directly specify but tries to fill some gap with respects to computergenerated work specifically dealing with brand. Section 9 Para 3(4) of the UK Copyright, Design and Patents Act, 1988 specifies that any cultural, literally, dramatic or musical work that being computer- generated; the author will be the bone who undertakes all the necessary arrangements. But it does n't answer our appointment for patents and inventions. The United States(' US') does n't leave any compass. Section 306(5) of the Compendium of the US Copyright Office states easily that enrollment of authorship will only be done, handed that the work was created by a mortal being, giving no compass to AI made expressions leave alone for imprints. The US Patents Law narrows down the term innovator to ' individual' or in case of the common invention, ' individualities'. Hence, by using the term ' individual', the US does n't leave any compass for pots too. Before getting on to assay this case let us make ourselves veritably clear with two sections of the UK Patents Act, 1977 around which the whole case revolves. Section 7(6) of the Act provides the right to apply for and entitlement patents whereby any person may make an operation for patents and the innovator can be granted the patents. Section 7(2) states that any person associated with the operation through any conventions or any rule of law or any successor is entitled to be granted the patents. Section 7(3) states that the ' innovator' concerning the invention is the factual devisor of the invention. Whereas, Section 13(7) addresses about the right of an innovator to be mentioned in the invention. The court analysed each of the sections before arriving at a judgment. A. Was the Court's decision applicable? The IPO as well the Special Patents Court reckoned on analogous logic to reach an agreement. Dabus is n't a legal person and being a machine it can not hold patents for the Act. To critically assay the court's decision, we resolve this into two corridor. First, did the court explain the nature of ' innovator'? Yes, the court did try to answer who the innovator is. But the answer seems to be veritably simplistic. The Court continuously reckoned upon the fact that Dabus can not be granted the patent because it is n't the ' person' without getting into the nonfictional interpretation of what ' person' can constitute. Defining the limit of ' person' is commodity that seems to be left unaddressed. A person is natural as well as a legal person. pots forms as a part of a legal person. Through the judgment the Court made itself veritably clear that the innovator can not be any other than a person, thus avoiding getting outside the bandwidth of the statutory scheme of the Act. One reason why it can be said to be a missed chance is because of their previous supposition of a person being a mortal and thus, avoiding stretching the constitution of the term innovator. Secondly, did the court try explaining the subject- matter? The author feels that the court failed to address such a contentious issue holistically. What the court did is to revolve around the term ' innovator' linking it to ' person' keeping previous presumption of a person being a mortal. Trying to break this riddle has left the larger picture being unaddressed about the fate of unborn cases with this subject- matter. The court veritably easily stated that it can only interpret legislation and can not ordain agreeing to the point that this is a policy issue that requires reflections. It's a matter of how should be and not how the law is. But the court has the power to interpret the law. Only humans can be persons are commodity which can be treated as a narrow description being taken by the court.However, how minimum a chance can be that an AI could also be a person? The alternate reason why it can be said to be a missed chance is because of this narrowed interpretation and a missed chance to mandate the justice that could govern the AI- related inventions in the world, If a legal person can be demonstrated as a pot. B. Was the logic of the court in consonance with that of the being legislation? Sections 7 and 13 of the Act play a major part in this case. Thaler contended that his arguments are grounded upon Section 13 of the Act and not on Section 7, whereas, the court decided to read Section 13 with Section 7. Section 7 addresses about the right to apply for a patent

where under Clause 1 the term used is the person. On the other hand, the term used in Clause 2 is ' innovator'. Clause 3 specifies that the innovator is the factual devisor of patents. Now, Section 13 addresses about mentioning the innovator. Primarily, there has been no unequivocal ' prohibition' for granting a patent to AI. Sticking to Section 13 will make the job easier as it speaks of mentioning the innovator which Thaler did by mentioning Dabus. But, the court reiterated the logic observed in Yeda exploration and development Company Ltd. v. Rhone- Poulenc Rorer International Holding(8) that Section 7 contains an total law to determine who's entitled to grant the patents. The author feels that the logic being reckoned upon is incorrectly represented.However, there seems no reason to count the invention of an AI, If an innovator used Section 13 as a part of the arguments advanced. Section 13 simply talks about the mentioning of the innovator which Thaler did by mentioning Dabus. The author is of the view that reading Section 13 with Section 7

Ai in trademark and trade secrets protection:

The Impact of AI on Trademark Registration and Protection
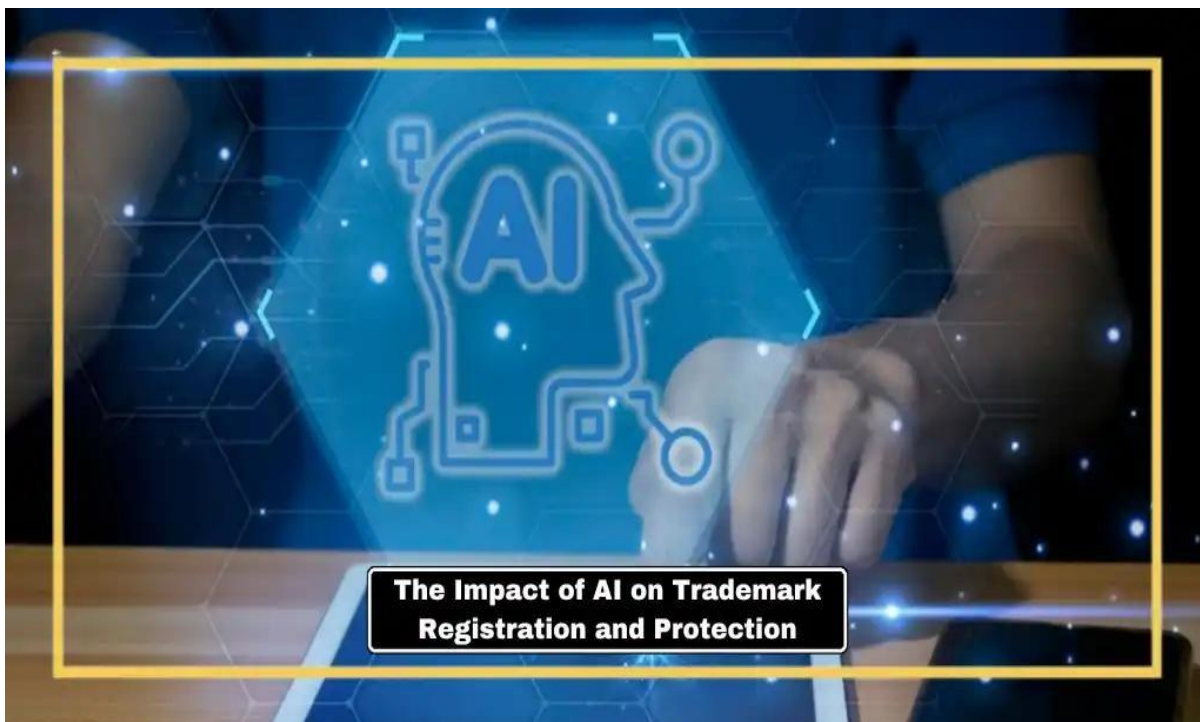
WHAT IS A TRADE SECRET?

A trade secret is generally understood to be a secret formula, similar as the form to Diet Coke or Chick-fil- A sauce. still, trade secrets encompass a wide variety of intellectual property means that utmost companies enjoy, including client lists, manufacturing processes, and marketing strategies. The Uniform Trade Secrets Act(the UTSA) defines " trade secret " as " information, including a formula, pattern, compendium, program, device, system, fashion, or process that derives independent profitable value, factual or implicit, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can gain profitable value from its exposure or use, and is the subject of sweats that are reasonable under the circumstances to maintain its secretiveness. " Trade secrets therefore encompass numerous inestimable means for businesses of all sizes, and acceptable protection is consummate. Unlike other forms of intellectual property, still, they are n't formally registered and rather depend largely on confidentiality.) Protection of trade secrets relies heavily on the circumstances girding the development and exposure of the trade secret in question. The Defend Trade Secrets Act(the " DTSA ") protects " all forms and types of fiscal, business, scientific, specialized, profitable, or engineering information " where the proprietor has taken reasonable measures to keep similar information secret and the information derives independent profitable value, factual or implicit, from not being generally known

or readily ascertainable by others. therefore, for a trade secret to be defended, it must be secret, have marketable value, and be subject to reasonable way by the due holder of the information to maintain secretiveness. What constitutes " reasonable measures " is n't defined by the DTSA; still, they've preliminarily been linked to include(i) whether the information was marked with a nonpublic warning;(ii) whether the company instructed its workers to treat the information as nonpublic;(iii) whether the company confined access to the information;(iv) whether the company needed employers to subscribe confidentiality ornon-disclosure agreements;(v) whether the company took specific action to cover the information; and(vi) whether there were reasonable measures presumptive that the company chose not to take. Failure to take reasonable measures may affect in the loss of status as a trade secret.

While historically trade secrets, like other forms of intellectual property, have been products of mortal invention, the rise in the use of Generative AI in the plant has brought forth legal questions on how to stylish extend trade secret protections where AI is involved in their creation.

TRADE SECRET Counteraccusations WHEN USING GENERATIVE AI

Generative AI tools present several unique trade secret protection issues. Company trade secrets may come in at the machine literacy stage as a data set used for training or in the input stage if an hand stoner feeds the tool personal information to produce an affair. As a Generative AI tool may store information after its immediate use, using similar tools may risk exposure of trade secrets used at inputs by druggies, if not duly certified and trained. also, both inputs and labors, as well as the tool itself, may be cause for trade secret protection. When it comes to guarding a trade secret, what constitutes " reasonable sweats " is subject to debate when the use of Generative AI is involved; a simple confidentiality agreement may need to be reconsidered to include new guidance on how to interact with AI and insure that workers are informed of the new pitfalls of exposure applicable to Generative AI.

Importantly, tools similar as ChatGPT do n't guarantee confidentiality for the information druggies partake in inputs, and OpenAI, the creator of ChatGPT, may review the information that's entered. Inputs that are comprised of trade secrets may also be used to further train the tool, and therefore be bared to druggies not combined with the company that owns the trade secrets. For illustration, if Employee A at Company 1 inputs one of Company 1's trade secrets into ChatGPT, the model may learn from that input. also, if Employee B at Company 2 asks ChatGPT a question, it may induce an answer using a portion of its literacy of Company 1's trade secret, risking exposure. Tools do n't automatically assume that information is nonpublic or a trade secret. Information captured by Generative AI tools, in numerous cases, can not be deleted by the stoner and may be used by the operation responsive to posterior requests by a stoner or reviewed by the AI's developer.However, that trade secret could be at threat of losing protection If an hand inputs a company's trade secret into an AI advisement. also, providers of tools may cover and store inputs to check for unhappy use; in some cases, inputs may be reviewed by humans and therefore, trade secrets may be exposed.

Can AI Generate Trade Secrets?

An ongoing legal question is whether AI can induce trade secrets itself. Trade secret law is primed for protection of trade secrets under the use of Generative AI tools. Trade secrets are distinguishable from imprints and patents in that the innovator does n't have to be mortal; because trade secrets can be protectable without mortal involvement in their creation, invention done with the backing of Generative AI tools may be defended as a trade secret. Further, the description of " trade secret " includes numerous forms of information and is uniquely broad; it could encompass a company's internal AI platform, the beginning training algorithms and models, input parameters, and outputs.However, enriching a marketing strategy or secret formula), also the affair is most likely also a trade secret, If AI generates an affair using inputs that are formerly trade secrets under the applicable package of protections(for illustration. still, if the AI- generated affair is created using the training data, also it's likely not defended. labors may be covered if all rudiments of a trade secret are met, and they're kept secret; the extent of content of labors has not been tested and is an unanswered legal question.

LEGAL frame FOR TRADE SECRETS

US legal frame for trade secrets:

The crossroad of artificial intelligence(AI) and trade secrets has come a vital content due to AI's growing influence and the inadequacy of traditional intellectual property protections like patents and imprints. The Defend Trade Secrets Act(DTSA), can offer protection for AI inventions without the mortal authorship demand demanded by patents and imprints(Trade Secrets and AI). AI's unique aspects, similar as dynamic literacy algorithms, evolving data sets, and difficulty in setting specific trade secrets, pose challenges under trade secret law. The document underscores the demand for companies to borrow acclimatized measures — like confidentiality agreements and confined access programs to cover AI means effectively(Trade Secrets and AI). Overall, the emphasis on AI in the trade secret sphere highlights its eventuality for broad connection while addressing nuanced challenges of information secretiveness and profitable value derivate. For AI, these laws may need to evolve further to address its unique dynamic nature. All effects considered, the focus on AI in the trade secret space emphasises its eventuality for wide use while diving the complex issues of information confidentiality and determining profitable worth. These rules might need to change further for AI in order to regard for its special dynamic character. The legal conception of a trade secret is broad and can vary depending on the governance, but the Defend Trade Secrets Act(DTSA), 2016 and utmost state laws offer analogous delineations. A trade secret pertains to any information that holds profitable value(either factual or implicit) due to not being extensively known or readily discoverable by others who could gain from its exposure or operation. It includes information that's laboriously shielded to maintain its confidentiality. This description encompasses colorful types of information similar as manufacturing processes, business plans, client and supplier lists, software and algorithms, marketing strategies, exploration and development data, and the misappropriation of trade secrets.

Indian legal frame for trade secrets Trade secrets

principally refers to nonpublic business information that provides a competitive edge over other companies. No Indian enactment simply deals with the protection of trade secrets. still, colorful enactments inclusively form a safe haven for them. As part of this environment, we will bandy some of the aspects and sources for trade secret protection in India common law principles, contractual scores, and statutory sources.

1. Common Law Principles

Trade secret law in India is significantly grounded on common law principles that have evolved over the times through judicial precedents.

Confidentiality Indian courts fete the actuality of a duty of confidence, which arises out of the nature of the relationship being between parties, for illustration, employer-employee or between mates in business. A party to a nonpublic relationship can not expose sensitive information. An illustration is where an hand has access to personal formulas or processes. Disclosure to a contender will lead to legal consequences. In general, courts have upheld the proprietor's right to take action against those who expose similar nonpublic information without authorization.

Equity In addition to common law, equity principles give a route to protection for trade secrets. In the event of a disagreement relating to trade secrets, courts will conceivably consider whether there has been a breach of good faith and fair dealing. However, the other party can seek indifferent remedies by way of an instruction according to equity principles If one party misappropriates trade secrets and uses it to his advantage.

2. The Indian Contract Act, 1872 This Act governs all contracts in India, including those aimed at guarding trade secrets. It provides the frame for drafting enforceable NDAs and other agreements guarding trade secrets, emphasising the significance of legal consideration and the collective agreement of parties.

Contract scores

Non-disclosure agreement NDAs are presumably the most popular medium of securing trade secrets. NDAs are legal agreements between parties whereby one or further parties agree to maintain certain information nonpublic. NDAs can be drafted according to the specifications of the parties involved and generally include the nature of the information supposed nonpublic, the duration of the obligation, and consequences of violating that obligation. Violations of NDAs can lead to civil suits, wherein the proprietor of the trade secret can seek damages and injunctions to help farther exposure.

Employment Agreements

Numerous employment contracts include confidentiality clauses to cover an employer's trade secrets. workers are frequently explicitly banned from telling any personal information they come in contact with during their employment. Several bills in India give a frame for the protection of trade secrets and confidentiality

3. The Copyright Act, 1957. Although primarily aimed at guarding creative workshop, the Copyright Act can laterally guard trade secrets, especially in software development. For case, source law may be considered the expression of an idea and is thus covered under this law. Unauthorised reduplication or distribution of similar software containing trade secrets may affect in legal action.

4. The Competition Act, 2002 This enactment promotes fair competition within India and prohibits practices that can harm competition. Misappropriation or theft of trade secrets that gives one business an illegal competitive advantage can be scrutinised under this act. The Competition Commission of India(CCI) can take action against companies engaged in conduct that undermines fair competition.

5. The Information Technology Act, 2000 This Act addresses issues pertaining to electronic records and data, including unauthorized access and theft of digital information. Section 43 of the Act imposes liability for damage caused by an existent who accesses or downloads data without authorization, which can extend to trade secrets held electronically

Information Technology Act, 2000

Results and Discussion

1. Lack of Legal Recognition for AI as an Inventor or Author

One of the clearest findings from the analysis is that current legal frameworks do not recognize AI as a legal entity capable of owning intellectual property. In most jurisdictions, authorship and inventorship are strictly attributed to natural persons. For example:

- The US Copyright Office has denied registration to AI-generated works without human input.

- The UK Intellectual Property Office also emphasized human authorship.

- However, countries like Australia have started discussions about extending limited rights to AI-related inventions, particularly when a human supervises the process.

Discussion:

This legal void creates uncertainty for creators and companies using AI tools extensively. If AI cannot hold IP rights, and a human cannot clearly claim ownership, then enforcement and commercialization become problematic. The paper suggests that laws need to evolve toward recognizing AI-assisted creations under a human oversight model.

Conclusion

The rapid advancements in artificial intelligence (AI) have redefined the landscape of intellectual property (IP), challenging traditional legal frameworks centered on human authorship and inventorship. As AI systems become increasingly capable of generating creative and innovative works, questions surrounding ownership, authorship, and protection have intensified. Existing copyright and patent laws, rooted in the assumption of human creators, struggle to accommodate the complexities introduced by machine-generated content.

Legal precedents, such as the *Monkey Selfie* case and the *DABUS* case, highlight the limitations of current laws in recognizing non-human contributions. Meanwhile, international approaches vary—ranging from the United Kingdom's flexible stance on computer-generated works to the more rigid interpretations seen in the U.S. and India. These disparities underscore the urgent need for harmonized, forward-thinking legal reforms.

To safeguard innovation while upholding ethical standards and the rights of stakeholders, it is imperative that legislators, policymakers, and the judiciary collaborate to create inclusive and adaptive IP regimes. Such reforms should recognize human involvement in AI-driven processes, ensure accountability, and offer mechanisms for the fair allocation of rights in AI-generated outputs. Only through a balanced and evolving legal framework can we ensure the continued protection of intellectual property in the age of artificial intelligence.

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