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DIGITAL COPYRIGHT AND INTELLECTUAL PROPERTY IN NON-TRADITIONAL SENSORY MEDIA: SOUNDS, VIDEOS, TASTE, AND SMELL

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ABSTRACT

Soundbites, songs, motion pictures with sound, recipes people prepare or mixtures of flavours, even bottled smells - these things usually slip through the loopholes of the law. Novels, sheet music and painted canvases were the only content that received solid protection concerning the old copyright regulations. However, there is rapid growth of technology than what laws could keep up. Art knows no boundaries, and the inventor of things can make us feel initially what we taste or smell. The changes reveal vulnerability, and areas of enhancement in all intellectual property laws in the world.

This paper follows up those gaps with a comparison between the U.S. laws, European, British and Japanese ones, and Australian jurisdictions, as well as the emerging jurisdictions. I elicited these concepts on brain science, economics, philosophy and actual industry practices. It is quite obvious that one of the aspects that are not covered by any existing legal protection is touch, smell, and lived sensory moments. What safeguard there is is but skin-deep. Solutions should be based on what people really create, experience and communicate - not mere dry theory.

Sound records indicate the two layers where the first layer is used to protect the composition and the second layer is used to protect the actual performance. Online sampling is devoid of smoothness, royalty streaming is full of doubts, and artificial intelligence composition challenges the courts with new puzzles. Cinema and video present the same problems of authorship as headaches, video games do not fit in the old categories, platforms have problems with user content, and deepfakes are a complete disaster.

In subsequent chapters discuss taste and smell - not much explored. Is it possible to protect recipes, style, style of plating or entire eating experience either by copyright, trademarks, geographical indications or trade secret? In the case of scents, it comes down to the issue of whether or not perfume blends do receive copyright protection and in what way the trademark

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law can do anything with an object that cannot be seen and can hardly be explained in words. During this study, one fundamental question has continued to make a resurgence within me: are the traditional reasons behind copyright still applicable to the new sensory productions or have we to make something totally new? There are definite recommendations made by the end - directed to the legislators, judges, and people forming the agreements on the global level.

The keywords include: Digital copyright, Intellectual Property, Sound records, audiovisual works, video copyright, taste copyright, flavor protection, fragrance copyright, olfactory trademarks, non-traditional sensory media, fair use, digital millennium copyright act, the Berne convention, the TRIPS agreement, artificial intelligence and copyright, streaming royalties, sampling, deepfakes, geographical indications, trade secrets, moral rights.

Introducton

Rules concerning the ownership of ideas had started to emerge, back in the days when machines started to copy things. What was known as the legal gaze were the beginning of printed books, courtesy of a 1710 British rule known as the Statute of Anne. A little later, in 1883, the inventions and brand symbols received the separate protection, as a result of the Paris agreement between countries. On a different tune altogether, tales and artworks had their protection on the 1886 Berne accord. Sound it itself began to be an object of legal claim once it was possible to record voices on discs, after 1877. Suddenly, cinema cameras challenged laws to keep abreast with motion pictures. Each time we can see a new tool of creating or reproducing art appearing, the set of rules changes - they can be stretched or partly new.

At the end of the 1900s and the start of the 2000s, technological transformations provoked significant changes in the operation of laws. Due to the web, duplication of digital content all over the globe was instantaneous at almost no cost, and dispels the past conceptualization of value in terms of rarity. Legal responses - very gradually but evidently - came in new laws such as the 1998 act on internet piracy in America, international accords made at WIPO two years prior, and a series of country-specific changes to attempt to reform copyright to fit new realities. And although it was cumbersome, every step endeavored to make law as people do today. There was something silent which happened due to computers. No longer is it only pictures or sound that go digital but also now tastes and smells. The copying of sounds started and then the copying of videos followed but now machines are sniffing and tasting like human beings. The working principle of these tools is to break down scents into chemicals, which are read

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using a machine known as e-noses or lab equipment reading molecules. The transmission of smells via the internet is not easy yet, as compared to music or movies. Nevertheless, the process of development is rapid, appearing in the factories with the inspection of food, doctors with sickness, or new features on the phone. Legal regulations regarding the ownership of a smell - or flavor - are at a loss, unable to keep pace. What is his becomes the fuzzy when senses become information.

Currently, outdated regulations concerning who owns sounds and videos are quickly changing due to the emergence of new technology. The game is not only changing with regards to AI, but also human streaming. Clips created by users overrun platforms, and virtual worlds become more and more real. Machines are writing songs to-day. They imitate voices to an extent of deceiving listeners. Even counterfeit videos are convincing to the eyes. Algorithms design smells and tastes, as well. Who made it, turns a puzzle thereon. Creation without any human hand made it? Inventions in the past do not even accommodate laws established long ago. Courts are at a loss as to who is in possession of right to machine-bred work. Creating a project that goes on with the technology, the law of creative rights in taste, scent, hearing, audiovisuals - step by step goes down the street. It does not hurry but compares the laws of the world, basing the ideas on the basic IP theory. Since rules need to change, the updating is provided using intelligible reasoning and not conjecture.

Research Questions and Objectives

This dissertation is founded on four questions where each question has been linked to a given field of study. To begin with, will such a system be in a position to cope with issues associated with digital sampling, the funding of streams, artificial intelligence applied in track production, as well as just treatment of the creative claims of artists? At this moment, which on the list of the leading legal jurisdictions would be the most successful at protecting the recorded sounds and written songs under the new copyright regime of digital media?

And now consider this - what fundamental loopholes are evident in legal regulations when everyday users create content, platforms host it, fake video have viral spread, streams are live at any time, virtual worlds have no reality? Will films and visuals based on sound be able to be protected under copyright on the Internet as long as these shortcomings remain undeployed? Here’s another angle. Changes have to occur in order to follow the trends of digital dining, high-tech ways of food preparation, culinary science - not merely equipment but even preferences themselves. Legal rights over protection differ in many aspects as far as flavors,

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dishes, edible inventions, creative work in the kitchen are concerned. Whereas in some places, ideas are kept in a stronghold: in others, they are quite liberal. Regulations vary on the intervention of patents, copyrights, trademarks. All branches deal with the creation of taste differently. Not all bites are owned, but certain bites are shrouded on special conditions. And the extent of that reach is disproportionate, unclear at times. Nevertheless, there are trends at the point of innovation and ownership. The system is also not that fast to adjust and therefore tends to fall behind what chefs come up with.

Smell things such as perfume or some form of scent - can it be copyrighted or trademarked or even a secret behind formula? As the new smells are currently mixed by artificial intelligence through the use of machines, perhaps laws should change. Antique legal boxes have an inconvenience in dealing with invisible, evanescent things that you feel by breathing. Whereas one is safeguarded by a trademark at a glance, a refrain continues to linger in gray areas. Digital smell technology will be getting ahead of the courts. It is more often protection that is based on the creativity rather than on the manner it is commercially used. There are companies that conceal recipes without openly stating this to be their own. But it is more difficult to trace copying when there are recipes that the algorithms write up in the night to create an aroma. The legislators are behind tech-savvy labs that recreate scent experiences by electronics. Rights in the future may not have to be registered but have to be traceable to the origin. The judges continue to perceive odor as functionality as opposed to expression. Nevertheless, assuming that code is able to produce art, why not have coded molecules to assert their territory too? Existing loopholes have the creators speculating on where equity commences. The first steps to making changes could be to treat some scent patterns like audio patterns. In innovation, absence of updates can make innovation go beyond what is witnessed by any court.

A goal of the thesis sit sits alongside others - mapping laws in countries of all forms of art based on senses. It burrows into creed that influences the reason why certain creations are aimed to be shielded by others. These decisions are tracked in money trails which indicate changes in access, profit and equity among the listeners, makers and companies. Thoughts are formulated gradually, resulting in real action that may be taken by the lawmakers in the future.

Methodology and Scope

Comparing locations such as the United States, the European Union - especially France, Germany, and the Netherlands, the United Kingdom, Japan, Australia, Canada, India and more

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where the topic is applicable, the paper examines laws and their discussion in such places. It does not simply compare rules, but instead delves into what different societies do in fact in demonstrating actual differences in the operation of legal systems. On the one hand, this will assist in identifying how some countries do it better than others. Meanwhile, it follows trends that already exist as it puts out the choices without forcing a single solution.

What comes out is an image that is constructed on factual practice, and not theory. To top it all, there are ideas that are generated in this category in a variety of fields. Out of the brain science come conclusions regarding the way in which the sense of smell and taste is handled by the nervous system. Philosophy also comes in on thoughts, particularly concerning the aspect of creativity, self-expression, and what it entails to create something original. Economic perspectives ring in as well - the ones, of legal regulations and the circulation of value in the form of ownership. Real life examples come in the scene by examining closely stories in the industries such as movies, music, cooking, drinks and perfume.

There shall be limits to every study. The project does not attempt to address all the rules, but concentrates on the major concepts as well as burning legal puzzles in the relationship between senses and law. Sound and sight receive more consideration as there are already more laws that are written regarding these, as well as music and film are significant in actual cases of conflicts over ownership. Taste and scent, though, come meandering through darknessier space - fewer rules are at work, and those areas are inclined to new thoughts and unexplored directions. Pages are changing between firm ground, and between uncharted grounds. The patent law remains out in the scene in this case, owing to the fact that it is a law that concerns inventions and a methodology rather than work of art. In cases where patents involve scent or flavor inquiries in the future, such an overlap is just given a one-time glance. The emphasis is on creative output, and not technical breakthroughs. This is not also applied to the rights of performers, although they are relevant in copyright-proximate systems. It would require a project all by itself to have a complete study of those rights.

Theoretical Foundations of Intellectual Property Law

Lockean Labor Theory and Natural Rights

The fact that people own what they create is another philosophical explanation of why people own what they work on presented by John Locke. Locke argued that you could own something in his book, the Second Treatise of Government, in which he explained that you could own

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something by putting your efforts in the work. But this was only when you did not spoil up or waste what you had, and yet there was still enough of what was good enough to leave to other people. The main premise here is as follows: when one invests his or her time, efforts and creative thinking to create something, he or she has a firm, instinctive right to take pleasure in what he or she has created. That is true even without estimating the amount of society benefit that it produces.

The ideas of Locke fit in well with those that are products of imagination and creativity. Consider an example of a perfumer who is making a new scent, a composer who is making a symphony, or a novelist who is making a book. All of them invest a lot of creativity in their work. In the sense that Locke would view it, such work provides them the per se right to ownership of what they have created. We can utilize the same concept easily to things such as taste and smell. The creative activity had to develop a special flavor or a unique perfume is as real yet perhaps even more so than writing a book or a song. But there are a number of reasons why people have criticized this Lockean foundation of intellectual property. To start with, this Lockean picture of mixing labor is problematic when you apply it to things which you cannot touch, such as creative works. A perfumer does not blend the work with the abstract smell it-self, but with chemicals. Second, when you grant a person the monopoly of an idea, an expression or a fragrance, it may actually restrict the activity of other people. This leaves the rule of Locke that there must be sufficient and equally good left over to others as a true test of intellectual property. Third, Locke initially thought of physical things that are different. His theory, in other words, does not say much with regard to the term of intellectual property rights or their extension. Despite these issues, the fundamental concept of Locke has been echoed, in particular as a means of leveling the scorecard of merely contemplating the utility of something to the society. It informs us of some ethical index, that creators have actual interests in their product, and they must be acknowledged, even though society may believe that they are useful. The concept is particularly relevant to the intellectual property law concerning the intellectual property moral rights, of which we will discuss later.

Personality and Expressivist Theories

The one which is based on ideas of Hegel, has a very significant role in the law of the European countries, and which is called the personality theory of intellectual property, states that intellectual property rights are all about personal relationship between a creator and his/her work. It is not all about money. It is about the creator connecting his/her personality and identity, and imagination with the thing he/she creates. In making something, people are

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inclined to leave a portion of themselves in it--their own special way of seeing things, their ideas--and you can truly see this in the last work. Due to this fact, creators are very concerned with what becomes of their work, although it might be sold or the rights may have been licensed to earn a profit out of the work. Thus, moral rights exist: they provide creators rights in their name on their work (called attribution) and right to prevent the ability of others to alter it in such a way that it becomes messy and even damaged (called integrity).

This personality fit concept works well with the less popular creative disciplines of which I will be considering in this paper. Upon considering the perfumers distinctive scent: it is indeed a demonstration of how they smell, and who they are as a designer. It is equally as much a personal statement as is a painter working with a unique piece of art. The same applies to the style of cooking of a chef, the unique tastes, touch and the way he/she serves food, it is not only about knowing how to cook but an individualized, imaginative show. This theory has a powerful implication in that it suggests that but these creators cannot only be provided with rights-related to money, but also with moral rights (such as picture and integrity) that copyright laws typically provide to authors and musicians.

The expressivist theory can also assist us to know when intellectual property rights are the most reasonable. These rights are most appropriately used when a piece of creation indeed reveals something personal and special about the individual who has created the piece. Their creative choices, their taste in beauty and what they wanted to convey should be featured in the work rather than the work being something created due to the rules that were to be adhered to. This is consistent with the rule of originality in the copyright law, but it provides us with a different perspective of the purpose of the rule and how the rule should be applied by us.

The International Framework for Digital Intellectual Property

The Berne Convention and it's Digital Legacy

The major international agreement that relates to the copyright law is the Berne Convention that regulates the Protection of Literary besides Artistic Works. It was initially adopted in 1886 and its last amendment was in 1971. A total of 181 parties have signed the agreement in 2026 implying that many countries have signed this multilateral treaty as compared to the others in international law. Member states abide by simple standards of copyright protection as a condition of the agreement. To comply, states implement the principle of national treatment and they do not need that formal procedures of protection exist. And the copyright life span is not less than half a century of the author.

At the time of writing the Berne Convention, there was no such thing as digital technology -

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its rules refer to the existing creative categories, as well as reproductive techniques, which existed in the 1800s and early 1900s. Article 2 contains a list of types of works protected, which covers books, pamphlets, plays, musical works, choreographic works, musical compositions, movies, drawings, paintings, sculptures, engravings and photographs - but the Convention drafters did not take into account whether the law is intended to protect video content created by AI, digital sound samples, fragrance compositions or flavor profiles.

Because the definition is inclusively written, that is, it includes works in the literary, scientific yet also artistic field, irrespective of the mode of expression or form, the Convention is open enough to accommodate most of the new creative fields in the hands of people because of its broadness. Audio-visual works are incorporated with this language.

TRIPS and Enforcement Obligations

The latest move to bolster international intellectual property law since the Berne Convention was the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) negotiated at the Uruguay Round of trade negotiations and administered by the World Trade Organization. This became effective in the year 1995. TRIPS has a few key distinctions as compared to the traditional intellectual property conventions. Unlike the obligations of the Berne and Paris conventions, where no particular mechanisms are in place to enforce them, intellectual property obligations are made liable to the dispute settlement process under the WTO and thus are legally binding in a stronger sense. Second, it sets minimum conditions as far as any types of intellectual property rights are concerned, including trade secrets, patents, trademarks, copyright, and geographical indications.

Most rules in the substantive section of the Berne Convention have been given reference to by TRIPS which introduce some important limitations. Regarding copyright, it provides a 50 year period of protection of sound recordings and performers rights, that permission must be issued at the time of the rental of computer programs and cinematographic works and that computer programs and streams of data should be subjected to protection. In terms of trade secrets (or undisclosed knowledge), Article 39 requires member states to protect information, which is confidential, commercially valuable because of its confidentiality, and which is subject to reasonable effort by the holder to maintain confidentiality. This provision affects the protection of flavor formulations and scent compositions to a great extent as it was explained in Chapters 6 and 7.

Activists in the field of public health, civil society, and academic community in poor countries have continued to condemn the TRIPS Agreement. The intellectual property standards spelt

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out in the Agreement were largely oriented towards the demands of developed-country multinationals and it has been widely criticized as being preoccupied with foisting protection standards on developing countries that may not be appropriate to their developmental economic status. The need to be flexible in the execution of the TRIPS mandate within the framework of public health was felt in the 2001 Doha Declaration on TRIPS and Public Health, yet the more general question of flexibility of TRIPS to cultural and economic development remains open to discussion.

The WIPO Internet Treaties

The first response of the international community to the challenges posed by digital technologies to the copyright law were the WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT) which were both ratified in 1996 and commonly known as the WIPO Internet Treaties. They were being bargained in the background of an ever-growing number of internet users and increasing concern on the availability of illegal copying and transmission of digital information.

The WCT clarified one of the initial controversies on whether transmitting and processing copies of a computer memory (by creating temporary digital copies) without an authorization qualifies as reproduction, by affirming that the right to reproduction under the Berne Convention extends to temporary digital copies. More significantly, the WCT stipulated that contracting parties that may provide adequate legal protection and effective remedies under the law against the exercise of the rights by authors in the context of the use of the technological protection measures (TPM). also, it prohibited removing or altering rights management data related to the works that are under the protection.

These are the requirements that were implemented in the US by the Digital Millennium Copyright Act of 1998 and in the EU by the Copyright Directive of 2001 that have had a profound effect on digital copyright. The anti-circumvention provisions offer a legal structure of technological protection which operates autonomously as well as in support of the underlying copyright to protect the digital locks implemented by right holders to limit access to and use of their works. Critics argue that such clauses are too broad, which prohibits circumvention to other uses of the copyright that would otherwise be covered by fair use and other such exemptions hence extending the real parameter of the copyright beyond the specifics that are actually spelled out in the law.

To safeguard the rights of performers and sound recording producers in the digital world, the WPPT required that the contracting parties grant the sole right to performers and producers to

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reproduce, distribute, rent and make their phonograms publicly available in digital networks. In the case of streaming services, where individuals can access the sound recordings on-demand, over the internet, the ability to make a work available to the members of the public, at a place and at a time of their own selection is of particular importance.

Digital Copyright in Sound Recordings

The Dual Copyright Structure: Composition and Recording

This is unlike most other aspects of copyright, in which the copyright law on sound recording provides a dual-layer protection of two distinct, but overlapping creative works in the same recorded performance. The primary layer comprises the underlying melody, harmony, lyrics and arrangement of the songwriter or the composer. The second layer consists of the sound recording itself, and the particular performance, production choices, engineering choices and technology processes, resulting in the ultimate recorded version of that song. Each of the layers can be owned by a different entity depending on the jurisdiction, subjected to different rights and have different life terms.

This dual structure can be attributed to the historical development in the recorded music industry. The law of the recording it-self, independent of the composition, was unsure when, with the invention of phonograph and gramophone, it was possible to reproduce musical performances. Protected phonograph records would at most start to be the subject of protection based on unfair competition or trade secret law, not copyright: the original copyright regulations did not explicitly deal with sound recordings. Before the sound recording amendment in 1971 that safeguarded sound recordings affixed on or since February 15, 1972, the United States did not afford sound recordings federal copyright safeguards. Until the Music Modernization Act of 2018, which finally subjected pre-1972 recordings to the system of federal copyright, recordings fixed before that date were protected by a confusing set of state law protections.

The rights of the sound recording and the musical composition have major differences. Mechanical licensing organizations, such as the Harry Fox Agency and (since 2021) the Mechanical Licensing Collective, manage the rights to music compositions in the US and performance rights agencies, such as ASCAP, BMI or SESAC, do so. These are reproduction right, which is connected with the process of selling copies and streaming, performance right, which is connected with the public broadcasting and performance and synchronization right which is connected with the application of the composition to the audiovisual production and the derivative is a right-doing, and is concerned with arrangements, translations, adaptations.

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The rights of a sound recording, in contrast, are more limited: the copyright holder is the right holder in reproduction, distribution, public display and transmission of digital audio, but has not a right to general right of public performance to broadcast radio. This has been criticized as being outdated asymmetry between composition rights and sound recording rights reflects the historical compromise which treated terrestrial broadcast radio as a method of advertising record sales and not a use which required a distinct licensing. Nevertheless, this argument has since been dilute in the realm of digital streaming and the US has now made it mandatory to grant digital streaming providers separate rights in sound recording and the composition, and to pay the composers and themselves. The conflict between streaming sites, record labels and music publishers, and independent artists, has continued due to this dual-licensing requirement which has made streaming economics incredibly complex.

History and Development of Sound Recording Rights

The legal protection of sound recordings has evolved significantly in the last century both through the reaction of the legislators, the courts and also the successive waves of technological development. The invention of the vinyl phonograph record, compact cassettes, compact discs and most recently, digital audio files and streaming technologies have raised new copyright questions and solutions legislatively.

The question about the response of copyright law to the cheap and easy consumer-direction reproduction technology was first raised by the home recording controversy of the 1970s and 1980s, where individuals actively copied commercially-available cassettes into cassettes to use at home. The music industry was promoting technological measures to thwart in-home duplication and legal restrictions on it. The last response in the United States was the Audio Home Recording Act of 1992, which levied a modest royalty on blank digital audio media and digital audio recording equipment, the funds of which were to go to the copyright owners, and required manufacturers of digital audio recording devices to add serial copy control mechanisms to prevent second-generation digital copies.

The peer-to-peer file-sharing networks that began with Napster in 1999 and made possible the easy illegal duplication and distribution of digital audio files posed a particularly disruptive challenge in the age of the internet. The music industry's massive legal actions against the sites and individual users led to the closure of the original Napster, but could not stop the proliferation of decentralized file-sharing networks. The attempt of the Recording Industry Association of America to accommodate thousands of individual file sharers earned them much

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bad publicity and ultimately, this backfired instead of deterring file sharing, it ended up losing billions of customers.

The transition to streaming as a business model to replace the download-based business model provided a relief valve to the financial crisis besetting the music industry, with new controversies over distribution and royalties. Starting with Rhapsody in 2001, the pace quickening with the launch of Spotify in 2008, the surge in legal streaming services brought about the need to negotiate complex licensing agreements involving composition rights as well as sound recording rights. Rates established by these agreements have become a topic of constant discussions, and songwriters and artists report that streaming royalties are downright insufficient relative to the revenues that the platforms receive.

Digital Copyright in Video and Audiovisual Works

The Nature of Audiovisual Copyright

The distinctive distinction of a work in audiovisual copyright is based on their complicated nature as a creative product; which incorporates many different forms of artistic expression pictures, sounds, music, text, performance, directing and design into a coherent whole.ole. This complexity has to be considered in the legal regulation of audiovisual works, which have to consider issues of authorship, ownership and the division of rights between different creative contributors to a single piece of production. In the digital realm, where audiovisual works may be reproduced, distributed, edited, and shared with unprecedented simplicity, and where new types of audiovisual production video games, user-generated content, livestreams, and virtual reality experiences challenge the categories and premises of traditional audiovisual copyright, these problems are worsened.ght.

The Berne Convention recognizes as a copyrighted category the cinematographic works and grants their authors the right to reproduce, distribute and publicly perform as well as create derivative works. The Convention, however, explicitly entrusts the interpretation of who is the creator or original owner of a cinematographic work to national law, which is aware of the variation in legal systems in the authorship tradition. This delegation has led to considerable differences in jurisdictions: the United States views the majority of the films as the work made under a hire contract owned by the film production studio: France views a director, screenwriter, composer and some others as co-authors: Germany also has a similar system: and the United Kingdom adopts a hybrid approach.

The work-for-hire theory prevails in audiovisual copyright in the United States. Section 101 of

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the Copyright Act provides that in case of an audiovisual work, that work may be commissioned as a work created on a hire basis as long as there is an agreement in writing between the parties. Adding to the general work-for-hire rule, to which the works created by employees at their workplace are subject, studios and production companies own the copyright in the films and television programs often produced by them, on a routine basis create, and directors or writers and other contributors to the creation have only a contractual as opposed to property interests in the work they help to create. The termination rights in the Copyright Act, permitting writers and their representatives to reclaim assigned copyrights after thirty-five years, offers a small checkpoint to this system, but is yet to be clarified in terms of cinema copyrights.

Intellectual Property in Taste and Gustatory Experiences

Can Flavor Be Copyrighted? Doctrinal Analysis

The use or protection of flavor, or the specific taste character of a food or beverage product, as a subject of copyright is one of the most interesting questions and underresearched in intellectual property law. It poses elementary issues of what creative expression is about, of what subject matter can be the subject of protection, and of the connection of utilitarian and aesthetic sides of commercial objects. It has also received extraordinarily varied reactions on the part of the courts and legislatures in different jurisdictions and has shown the degree to which traditions of legal nationalism, as well as policy preferences, affect the development of intellectual property theory.

The greatest judicial involvement in the matter of copyrightability of flavor was in the Netherlands. The landmark case in Lancome v. Kecofa (2006) by the Dutch Supreme Court created precedent to the effect that a scent composition could be considered a work of applied art and thus could be subject to copyright protection in the event that it was deemed sufficiently original and the result of creative decisions by its author. This case served as a doctrinal guide, even though much relied on smell, and not food flavor, but which Dutch courts have used thereafter to template other works of sense.

A lower Dutch court applied the same reasoning, to say that certain combinations of tastes in theory can be the subject of copyright.

Recipes, Culinary Methods, and the Idea-Expression Problem

As the copyright protection of flavors is facing severe difficulties, the issues of recipe and

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cooking process protection introduce another but similar problem.A recipe is clearly a fixed, written text, detailing ingredients and quantities, and how they should be mixed and prepared which could qualify as a work of copyright as a piece of literature. A recipe the written description of components and quantities, and the processes for mixing and preparing them is obviously a fixed, written work that may be protected under copyright as a literary work. The breadth of such protection, however, is severely limited by the use of the dichotomy of idea-expression.

Intellectual Property in Smell and Olfactory Compositions

The Copyrightability of Fragrance: A Global Survey

The question of whether an olfactory composition, a fragrance, perfume or aroma can be copyrighted is one of the most hotly debated and thought-provoking in the contemporary intellectual property law.law. Compared to visual art, music and literature, both of which employ sensory modalities (seeing and hearing), which have played a central role in human communication and culture, scent plays an ambiguous role in the Western culture and law. The olfactory sense has historically been regarded as more biological, more practical, more visceral and more animal than human. Such perceptions have influenced the legal analysis in such a way that does not necessarily reflect the actual artistic value of olfactory composition.

The perfume business, worth over $50 billion of global sales annually, is based on the artistic efforts of master perfumers (parfumeurs or nez in the French tradition), who take years to perfect their skills, produce unique olfactory artworks of long-term commercial and artistic capital, yet in most of the world, their work is not subject to copyright protection. A perfumer who invents a famous smell can have it chemically tested and blatantly imitated in months of its introduction with no legal recourse in copyright only trade secret (assuming that the formula is owned) or trademark (assuming that the packaging and brand name is distinctive).

Netherlands has been engaged most significantly in court in regard to the scent copyright. In 2006, in a case that was the result of a claim that the Female Treasure fragrance by Kecofa was a copy of the Trésor fragrance by Lancome, the Dutch Supreme Court, in Lancome v. Kecofa, decided that a fragrance could be copyright-eligible as a work, provided it was the product of the intellectual exertion of its producer, and could be perceived The court decided that a copyright should be affixed to the olfactory work it itself the smell as it is being perceived not the method of its creation. In remand, the court of appeals ruled that Trésor was distinct enough to be copyrightable and that Kecofa product infringed the copyright of Lancome.

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Conclusion

The four sensual areas of sound, video, taste and smell that form the entire spectrum of creative human expression through the senses have been deeply discussed in this dissertation concerning digital copyright and intellectual property law. The inquiry has demonstrated that the legal system is inadequate to the imaginative facts of the twenty-to start with century in numerous aspects, and it is also misguided and uneven.

The copyright legislation in sound and video in reaction to digital technologies has greatly and disproportionately developed frameworks that protect the interests of well established industries, and which often grant creators- particularly independent artists, directors, and performers- less rights than their creative efforts deserve a right to. The digital sampling, streaming royalties, AI-generated content, platform liability, deepfake technology, and virtual reality are all the problems that demand a significant development of law and doctrine.

The cultural marginalization of gustatory and olfactory creativity and the fact that it is technically very difficult to define, document or enforce the rights in works of sensory art that cannot be presented using the traditional mediums of text and image have seen the law lagging and holding back in the sphere of taste and smell. A similar conclusion was reached by the French Court of Cassation on aroma and the CJEU ruled in the Levola case abolished copyright protection of flavor in the EU. Gustatory and olfactory copyright is not well defined in most parts of the globe, particularly when it comes to the law. But the dissertation has found grounds of optimism as well. Technical obstacles to the accurate identification and registration of olfactory and gustatory creative work are increasingly being overcome through developments in the fields of analytical chemistry, digital olfaction and machine learning. The increasing awareness of catering and gastronomic arts as a valid mode of human creative expression was evidenced in the naming of haute cuisine as UNESCO intangible culturalv heritage, the cultural pride of master perfumers, and the economic weight of the food and fragrance sectors provides a good opportunity to establish an innovation enthusiastic environment.

The sound, video, taste, and smell reforms suggested in the dissertation are provided in the spirit of principled advocacy of a smarter, more inclusive, and more progressive system of intellectual property.tem. They are supposed to cause a scholarly and policy discussion, as opposed to being prescriptive legislative recommendations. The growth of digital intellectual property law is a joint venture, where scholars, practitioners, legislatures, judges, creators,

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industry participants and the general population are all heard.

The intellectual property law has a massive, virtually untapped and rapidly growing sensory frontier. In this dissertation, a large portion of the frontier has been charted, and recommendations given to the areas of future research. Filling in the map by continuing scholarly investigation, judicial engagement and legislative creativity is one of the most thought-provoking, and useful assignments of contemporary legal studies.

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