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Copyright Case of the Century Decided: Supreme Court Rules in Google's Favor in $9 Billion Software Dispute

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At long last, and after more than a decade of litigation, the United States Supreme Court has ruled in the multi-billion dollar copyright dispute between Google LLC and Oracle America, Inc. In a matchup that could be described as Goliath vs. Goliath, the technology giants waged war for years over Google's unlicensed use of Oracle's Application Programming Interfaces ("API") in early versions of its Android smartphone platform. In a case involving two jury trials, two Federal Circuit appeals, and two petitions for certiorari to the Supreme Court, both sides had wins and losses along the way, but Google ultimately prevailed before the Supreme Court and was absolved of liability.

The case involved two key issues: (i) whether Oracle's APIs were subject to copyright protection; and (ii) whether Google's use of the APIs was a fair use. The Court dodged the copyrightability question, which had the potential to send shockwaves throughout the industry, and instead focused its analysis on the fact-intensive fair use defense. By doing so, the Court potentially limited the direct impact of its decision to the dispute at hand and ones like it. But the Court's broad application of the fair use analysis is likely to lead to greater reliance on the defense in the software industry and beyond. Unfortunately, what the Court's opinion failed to do is add much-needed clarity and certainty to what has long been a convoluted, inconsistently-applied, and murky area of copyright law.

How Did This Start?

More than 15 years ago, Google set out to develop a software platform for smartphones. Sun Microsystems' (Oracle's predecessor) Java SE program offered a desirable solution. Ubiquitously used in computers, programmers know Java well. If Google could integrate Java into its Android platform, then programmers could readily develop new, compatible smartphone programs, making the Android smartphone even more desirable.

Unable to agree on the terms of a license with Sun, Google set out to develop its own Android platform. The end-product included millions of lines of novel code, but also copied approximately 11,500 lines of Oracle's API tool from Java.

Could Google have developed its platform without the copying? Sure. But without Oracle's code, programmers could not use the API tool they know so well.

Oracle's API: Explained

Oracle's API gives programmers access to thousands of prewritten computing tasks (each, called a "method") with the use of simple commands. This is tremendously useful. So long as programmers understand the API's commands, they can integrate the API's methods into their programs. Without the API, programmers would have to write their own code from scratch to accomplish the same computing functions.

The API functions in three parts. First, programmers enter a short-form command (called a "method call") associated with the desired method. Second, the API's declaring code facilitates retrieval of that method. The declaring code organizes *thousands* of methods into classes and those classes into packages. Once a method call is entered, the declaring code reads it, provides the name and location of the method within its organizational structure, and calls up the method. Finally, the API's implementing code tells the computer how to execute the method.

Although Google wrote its own implementing code, it copied 37 packages of Oracle's declaring code, allowing programmers to rely on the familiar Java method calls to access Google's computing tasks. Without Google's copying, programmers would have had to learn an entirely new system to program for the Android platform.

The $9 Billion-Dollar Question(s)

Oracle sued Google, claiming that Google's copying infringed both its copyrights and patents. Its copyright claims raised two key issues: first, whether Oracle's declaring code is copyrightable, and second, whether Google's copying of the code was fair use. Google secured its first win in 2012 from the District Court of Northern District of California, which found that the declaring code was not copyrightable because it was merely a "system or method of operation"—which copyright law excludes from protection. The Federal Circuit reversed, and directed the District Court to consider the fair use defense. In 2016, a jury found Google's use was fair use but, again, the Federal Circuit reversed, and Google's petition for writ of certiorari to the Supreme Court followed.

A Victory for Fair Use

Although fair use is an affirmative defense to copyright infringement, the Supreme Court declined to determine whether the declaring code is actually copyrightable. Instead, the 6-2 majority (with Justice Barrett not participating) only examined the notoriously flexible, fact-specific test for fair use. The test considers: "(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work."

On each of these factors, the Court found for Google.

Factor 1: The Nature of the Work

Here, the Court contrasted implementing code—which necessarily involves creative design and writing—with declaring code—which is inextricably bound with uncopyrightable ideas (such as task division and organization). Thus, the Court found that declaring code's value is not derived from creativity, but rather from the number of programmers who learn to use it. Because copyright law seeks to protect creative expression, the Court concluded that declaring code is farther from the core of what copyright law protects and, thus, that this factor weighs in Google's favor.

Factor 2: The Purpose and Character of the Use

Traditionally, for this factor to weigh in favor of fair use, the copier's use must "add something new"

or "transform" the use of the copyrighted material. Although the Court concluded that Google's use of the declaring code served the same function as Oracle's (i.e., to enable programmers to integrate methods from the API into their own programs), the Court nevertheless found this factor weighs in Google's favor. Specifically, the Court concluded that Google's use was "transformative" because it: (1) sought to create new products and (2) enabled programmers to access a new collection of computing tasks in a different computing environment (smartphones as opposed to computers).

The dissent, by Justice Thomas and joined by Justice Alito, opined that the majority's novel application of the "transformative" analysis eviscerates copyright. Indeed, courts routinely reject a fair use defense where the copier merely creates a new product without altering the original with "new expression, meaning, or message." Just days before the Supreme Court's decision, the Second Circuit rejected Andy Warhol's fair use defense against infringement of a photograph of pop-star Prince that Warhol used to create artistic prints. The Second Circuit found that Warhol's work could not "stand[] apart from the 'raw material' used to create it" and, thus, could not be transformative. Here, the Supreme Court's transformative analysis is a far cry from that standard. Indeed, Google's copying would have been hard-pressed to survive that test.

Factor 3: The Amount and Substantiality of the Portion Used

Although Google copied only a small quantitative amount of the API (approximately 11,500 lines of 2.8 million), Oracle contended the taking was qualitatively substantial. The Court disagreed and found that Google's taking was not intended to usurp creativity, but rather to promote it. Thus, the copying was not "substantial," because it served a valid, transformative purpose.

The dissent criticized the majority's analysis for concluding that 11,500 lines of declaring code was a quantitatively insubstantial part of the entire Java platform, including the implementing code. The dissent argued that the proper frame of analysis was to compare the volume of declaring code copied to the volume of declaring code in the Java platform. Under such an apples-to-apples analysis, the dissent contended the copying was quantitatively substantial.

Factor 4: Effect on the Market

Finally, although Oracle claimed it was due more than nine billion dollars in damages as a result of Google's copying, the Court was unpersuaded that the market effects were in Oracle's favor. The Court concluded that Android was not a market substitute for Java's software and, in fact, that Oracle benefitted from Google's expansion of Java into the smartphone market. And while the dramatic value Google derived from the API was undeniable, the Court declined to attribute that value to Oracle's copyright. Instead, the Court found that the value was a product of the time programmers have invested to learn the API—which copyright law does not protect. Taken together, the Court concluded all factors weighed in favor of fair use.

What's Next? Implications of the Google-Oracle Decision on Software Development

The Court's decision undoubtedly was met with sighs of relief from software engineers tasked with the job of developing interoperable, scalable software solutions. To many in the software industry, the outcome of this decade-long dispute validated what had been considered a "best practice" by developers – the re-implementation of API declarations. But, does the Court's ruling mean there is now an "open season" on APIs? Far from it.

The Court's decision to side-step the threshold question of copyrightability of API declarations and instead focus on the highly fact-specific analysis of the fair use factors underscores the narrowness of its decision. The Court made it clear that it did not view its decision as one that overruled its prior decisions or dramatically altered the copyright fair use legal landscape. Indeed, the Court used existing precedent

to characterize API declarations as being remote from the core of what copyright seeks to protect (i.e., creative expression), and thus, more amenable to fair use than the code used to implement the API declarations.

The limited nature of the Court's decision and the specific facts surrounding Google's conduct provide important lessons for software development going forward. First, Google took only what it needed from Oracle's API declarations to ensure interoperability. Equally important, Google utilized a well-vetted "clean room" protocol to write and test the API's code used to implement the API declarations. Software developers using APIs should take heed of Google's prudent approach.

In Sum

While the long-term impact of the decision on technology companies and software developers remains to be seen, it is anticipated that fair use will be lodged as a defense more frequently in software cases going forward. Nevertheless, parties should exercise extreme caution before using another's copyrighted work and should rarely rely on fair use as a get out of jail free card in their decision-making process. Fair use is an extremely fact-intensive inquiry that is inconsistently applied throughout the federal courts. The fact that the Federal Circuit and two justices of the Supreme Court disagreed with the applicability of fair use to this case illustrates this point. And, although Google ultimately prevailed, it was only after spending millions of dollars in attorneys' fees and more than a decade in time-consuming litigation, a burden most companies could not easily bear. And, because the Supreme Court's opinion did little to add clarity or certainty to the applicability of fair use outside of the Google/Oracle case, relying on fair use in other contexts could be risky business.

Joseph Matal in *Federal Circuit Law Journal*: 'The Three Types of Abstract Ideas'

Joseph Matal

Joseph Matal

No field of patent jurisprudence is more vigorously criticized by a more distinguished group of authorities than is the current law of subject matter eligibility. A former Chief Judge of the Federal Circuit has described the state of the law as "unending chaos" and a "menagerie of inconsistency" in which judicial decisions are "unclear, inconsistent with one another and confusing" and in which he himself cannot "predict outcomes in individual cases with any confidence."

Another former Chief Judge of the Federal Circuit has noted the "exist[ence] [of] widespread uncertainty and confusion regarding" standards for patent eligibility, which "is especially pronounced with respect to the exception for abstract ideas" – and "is allowing patent challengers to … wield the exception[s] [to eligibility] like a sledgehammer."

In a similar vein, recent former Directors of the Patent Office have stated that [our current patent eligibility law truly is a mess," producing "decisions that are irreconcilable, incoherent, and against our national interest;" that the law is ambiguous and difficult to apply consistently;" and that "hope has faded" that courts and the Patent Office will be able to "interpret and clarify" the exceptions and eligibility. Academics and leading professional associates are just as pessimistic, describing the case law as "creat[ing] a tremendous amount of uncertainty for innovators" and "inject[ing] ambiguity and unpredictability into the eligibility determination.

This article takes a contrary view. The Federal Circuit has now issued over 100 precedential opinions applying the *Alice/Mayo* patent eligibility test.

Excerpted from the *Federal Circuit Bar Journal.* To see the full article, click on the PDF linked below.

J Matal in Federal Circuit Law Journal

David McCombs, Eugene Goryunov, Dina Blikshteyn and Roy Falik in *Bloomberg Law*: 'COVID Testing and Patentability'

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In September 2020, a team of MIT researchers published a paper in the IEEE Open Journal of Engineering in Medicine and Biology, testing the hypothesis that coronavirus carriers—even asymptomatic ones—could be accurately detected using artificial intelligence (AI) based on only a phone recording of a forced cough.

If this hypothesis is correct, the Covid-19 test can be accessible to people worldwide. This is because it can be programmed into a mobile application, which can then be installed by millions of people on their smartphones. Once installed, people can use their smartphones to take a test from the comfort of their home and quickly determine whether they are likely to test positive or negative for the virus. There is no doubt that this invention is valuable, accessible, and easy to use. But is this invention patentable?

MIT STUDY

In the MIT study, a convolutional neural network (CNN) model was used to develop a process for predicting whether the cough came from a Covid-19 or non-Covid-19 carrier. First, an audio of a person's cough is recorded. The recorded audio is then divided into chunks and analyzed for indicative points or biomarkers in the audio spectrum. The biomarkers are subsequently passed to three different pre-trained 50-layer residual CNN (ResNet50) networks, each designed to analyze a different biomarker: one for the vocal cords, one for the lungs and respiratory tract, and one for sentiment or mood. The outputs of the ResNet50 networks are aggregated and a binary Covid/No-Covid decision is generated.

The key feature of the MIT study's model is its use of the ResNet50 networks. These networks are pre-trained to analyze voice recordings to detect Alzheimer's disease. Importing the pre-trained networks into the Covid-19 detection model provides several benefits. First, using a pre-trained model means that the Covid-19 detection already has a heuristic for decision-making, meaning the Covid-19 detection model requires less training and only fine-tuning. Second, using a pretrained model can help the accuracy of the new network by increasing the saliency of information that may have not been apparent in the novel use. Think of it as the new model saying, "Oh! I never would have thought of it like that."

The MIT team's Covid-19 study demonstrates remarkable results. The sensitivity of the algorithm—a measure of false negatives or, in other words, how good the test is at accurately detecting real cases—is 98.5% and the specificity of the algorithm—a measure of false positives or, in other words, how good the test is at not over-diagnosing—is 94.2%. For asymptomatic subjects, the sensitivity rose to 100% and the specificity fell to 83.2%.

Figure 1: MIT COVID-19 prescreening study CNN model (from IEEE Publication)

Because the Covid-19 study results are promising, the MIT team is now working to incorporate their Covid-19 model into a mobile application and seeking FDA approval for its use. The Covid-19 mobile application has the potential to be an effective pre-screening tool for Covid-19 by helping to detect asymptomatic carriers, encouraging the general public to check their health more often, and simply giving peace of mind to those who suspect having been exposed to Covid-19.

The benefits of this mobile application are a double-edged sword for the MIT team: because of its imminent success, the Covid-19 mobile application will draw not only attention but also competition. To

protect their investment and invention, the MIT team may, and should, apply for a patent covering the Covid-19 mobile application. However, is the Covid-19 mobile application patentable?

PATENTING THE COVID-19 MOBILE APPLICATION

The U.S. Supreme Court's 2014 decision in Alice Corp. v. CLS Bank International clarified the subject-matter eligibility test for patent claims and this, in turn, led to the invalidation of numerous patents. 134 S. Ct 2347 (2014). Even now, after numerous interpretive decisions and guidance, the operating subject-matter eligibility test still leaves patent prosecutors uncertain of whether their patent applications will issue as patents and owners of issued patents uncertain of whether their patents will withstand scrutiny in court.

The subject-matter eligibility test involves a two-step analysis. Step 1 asks if a claim is directed to a process, machine, manufacture, or composition of matter. Step 2 is broken down further into two sub-steps, where Step 2A asks if the claim is directed to a judicially recognized exception and, if so, Step 2B asks if the claim recites additional elements that amount to significantly more than the judicial exception. We will take each of these steps in turn and consider how the MIT team may address each step, should they choose to pursue patent protection for their invention.

Step 1 is relatively straightforward. Both neural networks and mobile phone applications can be patented as processes or machines, and the Covid-19 mobile application is unlikely to stumble at this step of the test.

At this point, the team will have an important decision to make regarding the scope of their claims. The team could elect to patent the underlying neural network, rather than the Covid-19 mobile application. While this may produce less valuable IP, it may offer a more certain path towards patentability. The team could, on the other hand, direct their claims to the Covid-19 mobile application itself. If allowed, these claims could produce fairly valuable IP. Such IP could preempt other applications that aim to diagnose Covid through audio recordings. The team could also attempt an even broader patent, claiming the entire process of diagnosing a variety of diseases or conditions via forced cough recording through a mobile application. The potential value of this IP, especially as biomarker analysis accuracy for diseases continues to grow, is phenomenal.

Depending on how the claims are drafted, Step 2A may be the first point of difficulty for patenting the Covid-19 mobile application. If the MIT team claims the invention as a mobile application that uses the neural network as a black box decision mechanism—that is, without claims directed to the neural network's specific operation—the patent application may be rejected on grounds of being "a certain method of organizing human activity."

This description is potentially fatal to the application because it is one of the four main types of abstract ideas in Step 2A. The USPTO gives the example of "a method of anonymous loan shopping that person conducts using a mobile phone" as one such patent-ineligible method of organizing human activity in its subject matter eligibility guidance. Claiming the Covid-19 mobile application as "a method of diagnosing Covid-19 by receiving a cough at a mobile phone" may be too similar to distinguish.

However, careful claim drafting can help the Covid-19 mobile application from falling into the "black hole" of Step 2B, from which relatively few patent applications return. Foremost, claiming their invention in terms of a neural network structure can help the MIT team provide more fodder for argument that the invention is not directed to an abstract idea. The USPTO provides a list of patent eligibility examples with example 39 describing a claim for training a neural network for facial detection that passes Step 2A, i.e., by not being directed to a judicially recognized exception.

Accordingly, a patent application with claims directed to training a neural network for prescreening for Covid-19 is more likely to pass muster under Step 2A than one with claims directed to simply using the Covid-19 mobile application as a black box.

Generally, to pass Step 2A, the claims should avoid terminology clearly within an abstract-idea category. By tying the claims to more concrete, functional, and technological applications, patent applicants can increase their chances of getting a patent granted. Another good practice is to include a description of the technical problem in the art and emphasize in the specification the technical solution provided by the claimed invention, making sure to include technical steps, i.e., a neural network structure, that overcome the specific technological problem.

Step 2A is a critical juncture in the patent-eligibility test because failing Step 2A would take the patent application to Step 2B—often a graveyard for patent applications. The analysis is that the claims must amount to significantly more than the judicial exception by adding specific limitations other than what is well-understood, routine, or conventional in the field or arranging conventional pieces in a non-conventional way. A CNN of relatively basic form and lacking much in the way of revolutionary improvements to the processing of information is unlikely to demonstrate the requisite features to satisfy Step 2B. Accordingly, it is important for the team to draft their claims in such a way as to avoid Step 2B, even if it may come at the cost of the overall long-term value of the IP generated.

POLICY CONSIDERATIONS FOR GRANTING THE PATENT

The U.S. Constitution proclaims that the purpose for granting a patent is "to promote the progress of science and useful arts." U.S. Const. art. I, § 8, cl. 8. Although it is unlikely that this nebulous purpose is running through the mind of an individual patent examiner at the USPTO who is in the process of reviewing an application, it does underscore some of the tradeoffs made when a patent is accepted or rejected.

Granting the patent would disclose a novel method for using soundbites to detect physical ailments. This disclosure has great potential to drive further innovation in the field because it would reveal the techniques the MIT team leveraged to achieve their high success numbers. Other researchers or inventors could then build on the disclosed information. Giving the MIT team patent rights could also incentivize investment in their continued research, leading to increased funding for technology with a potential to save countless lives.

Denying the patent application, on the other hand, might incentivize the MIT team to keep the research a trade secret. Withholding this information could impede subsequent inventions and make the U.S. less competitive than other countries in the field of auditory biomarker analysis.

CONCLUSION

The MIT team's research paper outlines a largely successful method of using a pre-trained CNN model to pre-screen for Covid-19, even among asymptomatic carriers. Should the MIT team seek to patent their invention, they could pursue a patent application with claims directed toward training or structure of a neural network that analyzes forced-cough input for biomarkers of Covid-19.

Alternatively, the claims can be directed to a Covid-19 mobile application with a forced-cough input and a binary affirmative or negative prescreening output. Although the latter may be more valuable IP, due to its broader scope, it will undoubtedly be more difficult to prosecute. Conversely, the former may be more limited in scope, but it is much more likely to satisfy the patent-eligibility test's Step 2A requirements and thus avoid Step 2B.

Even if the Covid-19 application overcomes the subject matter eligibility hurtle, there are no guarantees that the Covid-19 application is patentable. To determine patentability, the USPTO would examine the claims of the Covid-19 application against the prior art, including existing patents, patent applications, and non-patent literature. At the very least, the claims of the Covid-19 application must be novel and non-obvious over the mobile application and the neural networks that MIT created to detect Alzheimer's

disease on which the COVID-19 application is based.

To overcome potential novelty and non-obviousness issues, the specification of the Covid-19 application should be replete with implementation details that explain why the Covid-19 application design and its ResNet50 neural networks are novel and not obvious to a person of ordinary skill in the art.

One hurdle that the Covid-19 application is unlikely to experience is inventorship. Under current U.S. law and the USPTO ruling, only natural persons and not AI can be inventors. Because the ResNet50 neural networks in the Covid-19 application only determine whether a person tests positive or negative for Covid-19, and do not themselves invent the Covid-19 application, the AI does not appear to be an inventor of the Covid-19 application itself.

Regardless of whether the Covid-19 application is patentable and can be protected by a patent, today the Covid-19 application is valuable technology which may give people peace of mind.

David Bell, Randall Brown and Mira Park in *Law360*: 'Hashing Out IP And Legality Questions on Delta-8 THC'

David Bell, Randall Brown, Mira Park

David Bell

Randall Brown

Mira Park

You've heard of CBD and THC, but what do you know about their cousin — delta-8 tetrahydrocannabinol, or delta-8 THC?

This compound may be on the cusp of taking over the legal hemp market. As is the case with most things cannabis, the legality of delta-8 THC is not straightforward. What makes hemp-derived delta-8 THC particularly interesting is that, like hemp-derived CBD, it might be legal under federal and some state laws, but, unlike CBD, it can produce a high.

Here, we provide an overview of the legal framework for delta-8 THC, as well as comment on the interesting intellectual property questions that it raises.

For instance, will the U.S. Patent and Trademark Office approve trademark applications for delta-8 THC-based products, such as vaping cartridges that can get a user high and are unabashedly marketed with that claim?

What types of resistance might a brand owner face in protecting its marks and designs, and what options are available to protect them?

Is delta-8 THC subject to any patent protection?

What is delta-8 THC?

Delta-8 THC is one of the hundreds of compounds known as cannabinoids that can be derived from the cannabis plant.[1] Its psychoactive effect is estimated

to be about one-half to two-thirds of that from its better-known cousin, delta-9 THC.[2] For the chemists in the audience, CBD, delta-8 THC and delta-9 THC all have the identical chemical formula, and delta-8 THC only differs chemically from delta-9 THC in the location of a single double bond.

Users commonly report that delta-8 THC induces lower levels of anxiety, drowsiness and clouded thinking.[3] Retailers have been selling delta-8 THC products like vaping cartridges, prerolled joints, gummies, tinctures and concentrates for at least a year and a half.[4] These products can be found readily online and in brick-and-mortar shops. Many cannabis and CBD users are turning to it, and studies indicate that delta-8 THC can provide an array of therapeutic benefits.[5]

Delta-8 THC can be extracted directly from the hemp plant flower, but most hemp varietals contain insufficient amounts of delta-8 THC to make its extraction economically viable.[6] More commonly, the delta-8 THC found on the market is derived using a chemical process called isomerization on CBD from the hemp plant.[7]

What is the state of delta-8 THC under U.S. federal law?

The legality of delta-8 THC under federal law is not assured, but there are valid arguments as to its lawfulness.

As an initial matter, delta-8 THC also can be extracted from the marijuana plant, but marijuana and its derivatives, with few exceptions, are federally unlawful under the Controlled Substances Act, or CSA.

The focus — of both legal analysis and in current market practicality — thus remains on delta-8 THC derived from hemp. The Agriculture Improvement Act of 2018, or Farm Bill, legalized production and sale of hemp, at least in terms of federal law, by excluding it from the definition of marijuana in the CSA.[8] The Farm Bill defines hemp as:

> the plant Cannabis sativa L. and any part of that plant, including the seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.[9]]

As delta-8 THC is a cannabinoid, distinct from delta-9 THC, the Farm Bill appears to have descheduled delta-8 THC when it is derived from hemp.

Muddying the waters, however, is an interim final rule that the U.S. Drug Enforcement Administration issued on Aug. 21, 2020, that includes a statement that "[a]ll synthetically derived THC remain schedule I controlled substances."[10]

Consensus has not yet been reached on the meaning of "synthetically derived" and whether it encapsulates delta-8 THC derived chemically from hemp CBD.[11] Litigation is underway to challenge the DEA rule.[12] In the meantime, positions for and against delta-8 THC's present legality under federal law can be summarized as follows.

On one hand, there is the argument that delta-8 THC appears potentially unlawful. The term "synthetic" is generally defined as created by a chemical reaction, which characterizes the typical production of delta-8 THC. Moreover, nobody reasonably thinks Congress' intent with the Farm Bill was to decriminalize intoxicating substances.

On the other hand, there is the argument that delta-8 THC appears lawful under federal law. Perhaps most simply and importantly, the Farm Bill is generally understood to have intended to deschedule hemp and all hemp-originated substances.

Secondly, the Farm Bill definition of hemp includes not only cannabinoids, but also isomers. Isomers are commonly laboratory-manufactured from organic sources. Given that delta-8 THC is also a lab-produced isomer, it appears to fall under the scope of the Farm Bill as a hemp substance.[13]

Additionally, delta-8 THC is derived from naturally occurring organic compounds, and prior DEA guidance indicates that what it defines as synthetic cannabinoids are those derived from inorganic material.[14]

What does state law say?

The legality of delta-8 THC at the state law level requires careful examination of each state's laws. Texas, New York, Florida and Connecticut have laws, for instance, that mirror the language of the Farm Bill.[15] Other states, including Alaska, Arizona, Arkansas, Colorado, Delaware, Idaho, Iowa, Mississippi, Montana and Utah, however, have explicitly outlawed delta-8 THC regardless of its derivation.[16]

Where does this leave companies that wish to protect intellectual property rights in their delta-8 THC-related businesses?

Trademarks

The USPTO has been conservative with approving trademarks for hemp-based offerings, even after passage of the Farm Bill. In early 2019, the USPTO placed examination on hold for nearly all trademark applications involving products containing CBD or hemp-derived ingredients. Hundreds of filings sat in limbo for many months.

More recently, the USPTO has been reassigning cannabis-related applications to a small number of examining attorneys, in an effort to improve the consistency and accuracy of examination on the subject matter.

We found a mere seven trademark applications with the USPTO listing delta-8 THC among the applied-for goods. Each was filed within the last six months, and some within the last three weeks. These applications cover, for instance, smokable hemp, e-cigarettes, e-liquids, gummies and nutritional supplements, all containing delta-8 THC. None has yet been assigned to an examining attorney, even one that was filed six months ago and two that were filed over four months ago.

The USPTO could refuse these and other subsequent applications that cover delta-8 THC-based goods, claiming that they violate the CSA. However, given that the applications may be routed to examining attorneys with more cannabis subject-matter expertise, we believe it is likelier that the USPTO will approve such applications or at least suspend examination until there is clearer CSA or DEA guidance as to delta-8 THC's legality.

In addition to satisfying the CSA, hemp-related products must not run afoul of the Food, Drug, and Cosmetic Act. The Farm Bill does not allow for hemp to be introduced into foods, beverages,[17] dietary supplements or pet treats. For any applications that cover delta-8 THC goods that encompass — or even implicate — therapeutics or ingestibles, we can look to prior guidance from the USPTO as to goods containing CBD ingredients.

This means that we can expect some of the seven applications, or at least the listed nutritional supplements and other goods implicating therapeutics or ingestibles to receive refusals, as they remain unlawful under the FDCA.[18]

Another consideration for delta-8 THC trademark applicants is that examining attorneys may benefit from education on the subject matter. The examination phase of prosecution may be lengthier and costlier than it is with typical applications.

Should companies run into resistance or delays registering marks with the USPTO for delta-8 THC, registration at the state level is likely a viable option in some states — especially those that have not explicitly prohibited delta-8 THC.

Patents

Although trademark applications must satisfy a requirement of lawful use in commerce, patents do not face the same bar for examination and issuance. As a result, inventions relating to cannabis are examined by the USPTO on the same basis as noncannabis inventions.

For instance, U.S. Patent No. 7,399,872 granted on July 15, 2008, now expired for failure to pay maintenance fees, is for conversion of CBD to delta-8-THC and delta-9-THC and includes claims directed to such a method. More recently, the USPTO issued U.S. Patent No. 10,525,093, which is for cannabinoid formulations and the method of making them and includes claims directed to a formulation that includes a cannabis extract such as delta-8 THC and melatonin.

In addition, design patents that protect new, original and ornamental designs for an article of manufacture are likely available for the packaging on and the unique shape of consumable cannabis products like delta-8 THC.

Other routes of protection are available under the Plant Patent Act of 1930 for asexually reproduced plants or under the Plant Variety Protection Act of 1970, implemented by the U.S. Department of Agriculture, for new, distinct, uniform and stable sexually reproduced plant varieties.

Trade Dress

On a final note, companies in the cannabis industry often produce clever packaging designs and expend the resources to protect them. Companies can pursue trade dress applications for their delta-8 THC brands. As with applications for other types of trademarks, these might face refusals based on the CSA or FDCA, as discussed earlier. Design patents as mentioned above, therefore, offer an attractive alternate option for protecting packaging designs for delta-8 THC brands.

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[1] Zerrin Atakan, "Cannabis, a complex plant: different compounds and different effects on individuals." Therapeutic advances in psychopharmacology vol. 2,6 (2012), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/.

[2] Inverse, "DELTA-8-THC: SCIENTISTS EXPLAIN THE CANNABIS INDUSTRY'S "LATEST HYPE," 12/14/2020, https://www.inverse.com/mind-body/the-abstract-smart-clock-vs-body-clock (as described by Dr. Peter Grinspoon at Harvard Medical School); High Times, "What Is Delta-8 THC and How Is It Different from CBD?," 08/28/2020, https://hightimes.com/sponsored/what-is-delta-8-thc-and-how-is-it-different-from-cbd/.

[3] See, e.g., Troy Farah, "Delta-8-THC Promises to Get You High Without the Paranoia or Anxiety," Discover, 09/23/2020, https://www.discovermagazine.com/health/delta-8-thc-promises-to-get-you-high-without-the-paranoia-or-anxiety.

[4] Seth King, "How Some THC Is Legal—For Now," RollingStone, 01/18/2021, https://www.rollingstone.com/culture/culture-features/delta-8-thc-legal-weed-explained-1113859/.

[5] See, e.g., PRNEWSWIRE, "Introducing the Delta 8 E-commerce Site You've Been Waiting For," 09/23/2020, https://www.prnewswire.com/news-releases/introducing-the-delta-8-e-commerce-site-youve-been-waiting-for-301136833.html; National Cancer Institute, https://www.cancer.gov/publications/dictionaries/cancer-drug/def/delta-8-tetrahydrocannabinol; Author links open overlay panel Aya Abrahamov, Avraham Abrahamov, and R. Mechoulam, ScienceDirect, "An efficient new cannabinoid antiemetic in pediatric oncology," 01/05/1995, https://www.sciencedirect.com/science/article/abs/pii/002432059500194B?via%3Dihub.

[6] Alex Buscher and Andrew Janson, "Delta-8 THC is Still Legal Despite the New DEA Rule," Cannabis Law Journal, 01/18/2021, https://journal.cannabislaw.report/buscher-law-delta-8-thc-is-still-legal-despite-the-new-dea-rule/; ACS Laboratory, "A Guide to THC Delta-8 Extraction, Storage, Price, Consumption and More.," https://acslabcannabis.com/blog/education/a-guide-to-thc-delta-8-extraction-storage-price-consumption-and-more/.

[7] Alex Buscher and Andrew Janson, "Delta-8 THC is Still Legal Despite the New DEA Rule," Cannabis Law Journal, 01/18/2021, https://journal.cannabislaw.report/buscher-law-delta-8-thc-is-still-legal-despite-the-new-dea-rule/; ACS Laboratory, "A Guide to THC Delta-8 Extraction, Storage, Price, Consumption and More.," https://acslabcannabis.com/blog/education/a-guide-to-thc-delta-8-extraction-storage-price-consumption-and-more/.

[8] 7 U.S.C. § 1639o(1); 21 U.S.C. § 802(16)(b).

[9] 7 U.S.C. § 1639o(1) (emphasis added).

[10] 85 Fed. Reg. 163 (August 21, 2020), "Implementation of the Agriculture Improvement Act of 2018," https://www.deadiversion.usdoj.gov/fed_regs/rules/2020/fr0821.htm.

[11] Several stakeholders have submitted comments urging the DEA to provide further clarification. Joe Vitale, NYCGPA Submits Comments to DEA on Dangerous Hemp Ruling," CASTETTER CANNABIS GROUP, 10/23/2020, https://www.castettercannabis.com/post/nycgpa-submits-dea-comments; Regulations.gov, Implementation of the Agriculture Improvement Act of 2018, https://www.regulations.gov/document/DEA-2020-0023-0001/comment?filter=synthetically.

[12] Petition for Review, Hemp Indus. Ass'n v. DEA, (D.C. Cir. Sept. 18, 2020); Hemp Indus. Ass'n v. DEA, No. 1:20-cv-02921 (D.D.C. 2020).

[13] Buscher and Andrew Janson, infra, at n6.

[14] Id.

[15] Tex. Agric. Code Ann. § 121.001; Tex. Health & Safety Code Ann. §§ 481.002(5), 481.002(26)(f); N.Y. Pub. Health Law §§ 3302(21)(b), 3302(21)(d); §§ 581.217(2)(b), 893.02(3) Fla. Stat.; Conn. Gen. Stat. Ann. § 21a-240(29).

[16] Alaska Stat. Ann. § 11.71.160(f)(3); A.R.S. § 36-2512(A)(3)(w); Ark. Code Ann. §§ 5-64-215(a)(2), 5-64-215(a)(5)(A)(i); Colo. Rev. Stat. Ann. § 18-18-102(35); 16 Del. C. § 4714(d)(19); Idaho Code § 37-2705(d)(27); Iowa Code Ann. § 124.204(4)(u); Miss. Code. Ann. § 41-29-113(d)(31); Mont. Code Ann. §§ 50-32-101(18), 50-32-222(4)(ff); Utah Code § 58-37-2(1)(aa)(ii).

[17] A few beverage products are expressly allowed, such as hemp seed milk.

[18] See, e.g., In re Stanley Brothers Social Enterprises, LLC, Serial No. 86568478 (TTAB June 16, 2020) (precedential) (affirming refusal of application for the goods "hemp oil extracts sold as an integral component of dietary and nutritional supplements").

Vera Suarez in Law360: 'Fed. Circ. Simio Patent Eligibility Ruling May Affect Alice Test'

Vera Suarez

Vera Suarez

When determining whether patent claims recite patent-eligible subject matter under Title 35 of the U.S. Code, Section 101, courts follow the two-step framework from the U.S. Supreme Court's 2014 *Alice Corp. v. CLS Bank International* decision.

The first step of the Alice test determines whether the claims are "directed to" an abstract idea. If not, then the claims are patent-eligible. If so, then the second step of the Alice test determines whether the claims contain an "inventive concept" sufficient to transform the abstract idea into a patent eligible application.

The detailed description of the claimed invention is considered in the two-step framework, and the U.S. Court of Appeals for the Federal Circuit's recent opinion in *Simio LLC v. FlexSim Software Products Inc.* may change how the detailed description is reviewed when determining whether the claims are "directed to" an abstract idea in the first step of the Alice test.

In Simio, the Federal Circuit considered how much of the detailed description of the claimed invention was used to describe the alleged abstract idea compared to the purported improvement.[1] The Simio court first determined that the claims recited the abstract idea of "using graphics instead of programming to create object-oriented simulations."[2]

The court then noted that the detailed description had a "heavy focus" on the abstract idea with relatively little attention to the purported improvement.[3] For example, statements in the detailed description that touted improved user usability — because programming was not needed — were describing the abstract idea, nothing more.[4]

Specifically, the court pointed to five different sections that describe how the claimed system is easier to use because programming was not required.[5] Compared to these five sections allegedly describing the abstract idea, there is only one section that describes the

limitation associated with the purported improvement.[6]

The Federal Circuit noted that "[t]his disparity—in both quality and quantity—between how the detailed description treats the abstract idea and how it treats the [purported improvement] suggests that the former remains the claim's focus."[7] In part because of this disparity, the court determined that the limitation associated with the purported improvement was better analyzed in the second step, "rather than as sufficient to shift the claim's focus away from the abstract idea at step one."[8]

The Simio analysis of the detailed description is much more comprehensive than the current Manual of Patent Examining Procedure guidelines regarding the "directed to" step.

The MPEP provides that, in the "directed to" step, one way to demonstrate that the claims are not directed to an abstract idea is for the claimed invention to improve the functioning of a computer or any other technology/technical field.[9] This is different than the Simio court's analysis, which focused on whether the purported improvement was the focus of the detailed description.[10]

Instead, the MPEP looks to whether the improvement would be apparent to one of ordinary skill in the art upon reviewing the detailed description.[11] That is, an improvement that is not explicitly set forth may still be sufficient to establish patent eligibility if the improvement would be apparent to one of ordinary skill in the art.[12] Meanwhile, an improvement that is explicitly set forth in the detailed description may not be sufficient for patent eligibility if it is set forth in a conclusory manner and without the detail necessary to be apparent to one of ordinary skill in the art.[13]

Notably, there is no instruction in the MPEP to compare the quantity and quality of the details in the detailed description relating to the abstract idea and the purported improvement in the "improvements" evaluation.

Drafting patent applications that not only satisfy the MPEP guidelines but also take into account recent case law such as Simio is important for at least two reasons.

First, due to the first office action pendency[14] at the U.S. Patent and Trademark Office currently exceeding 15 months, it is possible that the MPEP guidelines will be updated by the time draft or recently filed applications are examined. Thus, preparing applications for the more comprehensive "directed to" inquiry as outlined in Simio will increase the likelihood of overcoming or avoiding a rejection based on Section 101 down the road.

Second, and during litigation, courts apply precedential decisions like Simio — not MPEP guidelines — when determining eligibly under Section 101. As such, applications that satisfy Simio's more comprehensive "direct to" inquiry are more likely to be held patent eligible if challenged during litigation.

So, how should applications be drafted in light of the Simio "directed to" inquiry? Generally, detailed descriptions should be drafted so that the quantity and quality of details relating to any purported improvement outweigh details relating to any potential abstract idea. To achieve this, at least one thorough explanation of the purported improvement should be provided, and references to the purported improvement should be sprinkled throughout the specification at different locations.

Moreover, language that might be identified as relating to a potential abstract idea should be omitted. At least in Simio, language describing improved user ability, which was the result of an already widespread practice, was categorized as describing an abstract idea. Therefore, similar language should be omitted or referenced sparingly in the detailed description.

Implementing these strategies may increase the likelihood that the purported "improvement" is analyzed in the "directed to" step instead of only being analyzed in the second step. This is important because it is more difficult to find an improvement during the second step than it is during the first step.

According to current MPEP guidelines, during the first step the purported improvement is not required to be an improvement over well-understood, routine, conventional activity.[15]

MPEP Section 2106.04(d) provides that the first step "specifically excludes consideration of whether the additional elements represent well-understood, routine, conventional activity." When analyzed in the second step, however, the elements or improvement cannot be well-understood, routine, conventional activity.[16]

Therefore, it is beneficial for a purported improvement to be analyzed in the first step, and applications should be drafted accordingly.

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[1][1] Appeal No. 2020-1171 at 14-15 (Fed. Cir. Dec. 29, 2020).

[2] Id. at 11.

[3] Id. at 14.

[4] Id. at 11 and 14.

[5] Id.

[6] Id.

[7] Id.

[8] Id. at 15.

[9] MPEP 2106.04(d)(1).

[10] See Simio at page 14.

[11] MPEP 2106.04(d)(1).

[12] Id.

[13] Id.

[14] https://www.uspto.gov/dashboard/patents/pendency.html

[15] MPEP 2106.04(d).

[16] MPEP 2106.05(II).

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IP QUIZ

Trademark Trivia

Can earlier rights in an acquired trademark used by a licensee be claimed to overcome a likelihood of confusion challenge?

YES

NO

IP QUIZ

Trademark Trivia

Apple Tacks on a TM Win for "APPLE MUSIC" Mark

Question: Can earlier rights in an acquired trademark used by a licensee be claimed to overcome a likelihood of confusion challenge?

YES! Through a process called "tacking" a brand owner can claim, or "tack on", an earlier priority date for its challenged mark based on an earlier acquired trademark, even if that trademark is slightly different from the challenged mark, doesn't cover the exact same goods or services, and isn't even in use by the applicant itself!

We saw the most recent instance of a successful tacking claim from Apple Inc. whose APPLE MUSIC mark (covering music-related entertainment services including music streaming) was challenged by a New York man claiming likelihood of confusion between APPLE MUSIC and his common law rights to, and a pending application for, APPLE JAZZ (covering music entertainment services including live musical performances).

In *Charles Bertini v. Apple, Inc.*, TTAB 91229891, Opposer, Charles Bertini, argued that APPLE MUSIC and APPLE JAZZ were confusingly similar and that Bertini had prior rights, noting that APPLE MUSIC had only been used since 2015 while his use of APPLE JAZZ dated back to 1985.

However, Apple argued that its rights to APPLE in connection with music actually extended back to 1968 – with a little help from its friends, the Beatles (or, more specifically, the Beatles' Apple Corps, Ltd. record label). Apple and the Beatles had been embroiled in trademark litigation for years over rights to the APPLE mark. But in 2007 the parties reached a resolution, with Apple buying all of Apple Corps' APPLE trademarks and then licensing them back to the music company, including a registration for APPLE covering records and compact discs with a date of first use of August 1968.

So, even though it starting using APPLE MUSIC directly for music streaming services only in 2015, Apple argued that it had rights to APPLE for music dating back to 1968 by virtue of Apple Corps' use of the APPLE mark under license from Apple Inc. Under trademark law, use of a licensed mark inures to the benefit of the mark owner. See 15 U.S.C. § 1055; 15 U.S.C. § 1127; TMEP § 1201.03(e)

This argument comes from a trademark doctrine called "tacking" that allows a brand owner to "tack on" an earlier use date based on an earlier, even slightly different trademark used by the owner or its licensee. The standard for tacking is quite strict and only permitted in rare instances. In 2015, the U.S. Supreme Court held that tacking is only available where the earlier trademark and the new trademark are "legal equivalents" meaning that, even though they might be slightly different, they "create the same, continuing commercial impression so that consumers consider both as the same mark." (*see Hana Fin., Inc. v. Hana Bank*, 135 S. Ct. 907, 113 USPQ2d 1365, 1366 (2015)).

The Board noted that tacking does not require the goods and services of the earlier and later marks to be the same. Rather, the goods or services must at least be similar. *See, e.g., In re Baroid Drilling Fluids Inc. v. Sun Drilling Prods.,* 24 USPQ2d 1048,1051 (TTAB 1992);

Here, the Board was satisfied that APPLE MUSIC and Apple Corps' APPLE crossed safely into the tacking threshold, noting that the marks had the same commercial impression and covered similar goods (sound recordings and the production and distribution of sound recordings). Accordingly, the Board dismissed Bertini's opposition finding that Apple's rights to APPLE (tacked on through licensed use by Apple Corps) predated his use of APPLE JAZZ. Attorneys for Bertini suggest he is considering an appeal.

If you have any questions, please visit the Haynes and Boone Intellectual Property Law page of our website.

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