Defining the Role of AI in Patents

https://mindmatters.ai/podcast/ep217

Robert J. Marks:

Welcome to Mind Matters News. I'm your intellectual property host, Robert J. Marks. We are talking to attorney and author Richard W. Stevens about artificial intelligence and patents. There are three types of intellectual property which are protected by the US Constitution, and Richard will correct me if I'm wrong. I believe they're trademarks, copyrights and patents. Is that right, Richard?

Richard W. Stevens:

Patents and copyright are. I don't believe trademark is actually in the Constitution, but it was part of the common law.

Robert J. Marks:

Okay. But currently, it is protected by federal law, right?

Richard W. Stevens:

Yeah. I can explain more about that if you want. It's actually-

Robert J. Marks:

Yeah, let's talk about it because I want to cross the line into copyrights versus patents.

Richard W. Stevens:

So, let's talk about trademarks. So, we know we're not going to talk about that anymore.

Robert J. Marks:

Okay.

Richard W. Stevens:

No. But a trademark, again, I think we mentioned it in one of the earlier podcasts, but trademark is basically either a series of words or some kind of a design, a graphic design, something like that, that identifies a business. It's what it does. It identifies the business. And when I say business, that means anybody. It could be an individual, but still, it identifies them. So as we talked about before, the Coca-Cola symbol, the very famous, you can't miss it, or the Walt Disney signature.

Robert J. Marks:

Yes.

Richard W. Stevens:

Okay. These are all trademarks. They're not copyrighted, they're trademarks because they identify the business. They identify who is branding this product or what the source of the product or service is. So,

that's what trademark is. That's been protected outside of the Constitution, in the common law, for the longest time.

Robert J. Marks:

But it is the US Patent and Trademark Office, so they're considered together.

Richard W. Stevens:

Yes. So, okay, it is. So, here's what people need to know about how it distinguishes trademark from the other two. You don't get a trademark from the government. You get protection for your use of the trademark. And what the government does, whether it's in the states, and I think all states have it, all the states I know about do, and the federal government, is a registry. So what the trademark, when you apply for a trademark, you're not getting a trademark, you're registering it because the questions in trademark have to do with, "Hey, you're using my trademark to market your business. No fair," and because it will confuse the user, or they'll think that I'm the one who made it when I didn't. Those kinds of questions. So, it has to do with identity and source of products.

So, you can actually have a trademark, for example, in Arizona, where I live, under the state. And the next state over, somebody could use the exact same formulation. So long as our businesses don't overlap and they don't cause some user confusion, or they affect a competition in some way where people will buy his product instead of mine because they think it's for me, or that I've endorsed it or something like that.

Robert J. Marks:

Now, you say overlap. Does that mean geographically or in terms of topic?

Richard W. Stevens:

It can be both. It can be both. For example, if I have a service here and I've created a service mark or or a trademark for it, and I have it on my truck and I drive around with it and people come to know me for that, that's how trademarks are created, is people come to know you. Now, I register it with the state. Well, that means in the state, you're protected against somebody using it. Now, somebody in Massachusetts uses the exact same trademark, but maybe for a different service, well, there's no confusion. Nobody's confused by it. They can use that without any problem. Now, the federal registration of a trademark, the object of the game there is to allow people to get a federal recognition that, "Hey, I'm going to use this trademark nationally, not have to litigate state to state. Nationally." But it's still, it's a registration.

And in fact, if a person doesn't use a trademark for a certain number of years, depending on the situation, it's all litigable. But if you haven't used a trademark for many, many years and someone else starts using it or something very close to it, the new person may have the right to use it because you haven't used it for a long, long time.

Robert J. Marks:

Yeah, I have heard, I think it's an abandoned trademark, is something like thermos model. It used to be trademarked and now it's a generic term.

Richard W. Stevens:

Now, that's not abandoned. What happened was it in common use, just like Kleenex, it became in common use, so much so that the courts would not enforce it because everybody used it now as the generic description. Just like you say, it's a generic description of the product, not referring anymore to the source or manufacturer.

Robert J. Marks:

Then parts of the country, if you order a coke, that just means a soft drink. And I heard about Coca-Cola at one time going around to different restaurants and saying, "Can I have a coke?" And they brought them a Pepsi. And they said, "No."

Richard W. Stevens:

That's right.

Robert J. Marks:

"I wanted a Coke." And they did this in order to protect their trademark, right?

Richard W. Stevens:

Exactly. And they still have. They still do that, so if you-

Robert J. Marks:

Do they?

Richard W. Stevens:

Yeah. And I don't know what Coca-Cola company does, but I know that every restaurant I've gone to, restaurant bar, you name it, if you ask for a coke, they'll say, "Is Pepsi okay?" 'Cause they're not going to get stuck by that and say, "Wait a second." And it's not just the law, but it's also the identity of the product. People sometimes want Coca-Cola, others just want a soft drink or a cola of any sort.

Robert J. Marks:

I've seen a map of the United States of where they refer to soft drinks as a soda, coke and pop.

Richard W. Stevens:

Right. That's so fun. I love that stuff.

Robert J. Marks:

It is. It's a geographical thing. I have also heard, Richard, that the trademarks, all the trademarks in the world exceed the value of all the patents. I don't know how they figured that out, but I do know that there's lots of litigation. One that I remember is Cracker Barrel. There was a litigation between the Kraft Cracker Barrel cheese and the Cracker Barrel restaurants, and they battled it out. And I forget who won. I think that they came to some agreement, but I'm sure a lot of money was used to protect that copyright.

Richard W. Stevens:

Well, it's a worthwhile thing. Also, so I think we've helped the listener now know what a trademark is, so we can go back and talk about the other two, realizing that they're different.

Robert J. Marks:

Okay. Patents versus copyrights.

Richard W. Stevens:

Oh, sure. So, a patent is a legal protection for a right that arises for an inventor who came up with something that was new, useful, and non-obvious. And so for a utility patent, for example, the most common kind that people think about, it's a thing. It's something that's been built. It can be built by somebody else. It's a device. There's different kinds. There are also various, there's software patents. You can have all these various things, but it's something that does something. That's what the utility part of that is. It's useful. It does something. Distinguish that from copyright. Copyright protects written word, music and visual representations. A few other things, but it's mainly that. So for example, if you take a picture of something, you immediately own the copyright, by the way. You don't need the government to recognize it. You actually have the legal right to copyright to a photo that you've taken or an article you've written. You immediately own it under the law, the way the law reads. So, but that's protecting words.

And in the case of copyright, what you're protecting is the expression of words. So, it's a turn of phrase. It's not the information content, it's how it's written. And pictures are the same way. A picture is a picture. You take a picture of a certain sort. For example, I wrote an article for Mind Matters, and you kindly let me use one of your photographs.

Robert J. Marks:

Oh, that's right. My fetching wife.

Richard W. Stevens:

You're fetching wife. And you were in it too.

Robert J. Marks:

Yes, I was.

Richard W. Stevens:

Which didn't ruin it. So, anyway-

Robert J. Marks:

Okay. Yes, it didn't.

Richard W. Stevens:

But seriously, but I had to ask you or you had to offer it. And if I'd had the photo already, I would've come to you and said, "May I use this online?" Because otherwise, I'd be infringing your copyright, which is your exclusive right to use your photograph. So, photos and sculptures and music and written word are all in the copyright. And so you can see, they don't have utility like a machine does or a design does or something like that.

Robert J. Marks:

I, one time, copyrighted some songs I wrote, and it was so easy. I think I could just put random dots on a sheet of paper, with musical notation, send it into the Copyright Office, and they would copyright it even though it was just gibberish. They certainly don't test for the intellectual content of what they copyright.

Richard W. Stevens:

That's correct. They don't.

Robert J. Marks:

Which is really fascinating. Well, let me offer the following situation. Let's get back to AI. And we have discussed patents already, but patents are kind of like copyrights in the sense that you own the copyright and it gives you a license to sue if anybody violates your intellectual property. Now, I have always said that artificial intelligence is a tool, and I can see some of these great artificial intelligence software things coming out as tools in the design of stuff. There was a recent case, a guy named Jason Allen. He entered a piece that was generated by artificial intelligence called "Théâtre D'opéra Spatial", and he took home the first-place prize at the Colorado State Fair's fine art competition in the category of digital arts/digitally manipulated photography. The art was generated using AI. Now, the Copyright Office, just like the Patent Office, says anything you copyright has to have the creative source as a human being. In other words, you cannot list an AI as the source of the copyrightable material. Is that true?

Richard W. Stevens:

I haven't looked that up. That's a good question. I suspect that is true though, because of the nature of how copyrights work. I mean, I've never seen it litigated, but then I haven't wanted to.

Robert J. Marks:

Well, yeah. One of the interesting things is that OpenAI was giving this really incredible computer program named DALL·E. They made it public and they said, "Look, if you generate art using our software, go ahead and use it. We're not going to copyright it." Now, they were trying to be great and tell the world how great they are, but I think it was already prohibited by the Copyright Office, so I don't think they were doing anything. It was all a manipulation.

Richard W. Stevens:

Well, depends. Depends. It depends on how it was set up. But certainly, the fact that a machine creates a piece of work, whether like as you say, AI is a tool, artificial intelligence is basically computer hardware and software. It's a tool that makes stuff, the same as your camera makes something.

Robert J. Marks:

Yes.

Richard W. Stevens:

Same as your piano makes something. In that sense, the tool is making the sound. Now, how do you protect what it is? So, in the case of even music and sculpture and photos and words, that would be copyright, and they don't look at the content. The issue in copyright is, you've got whatever the specimen is; for example, a photograph and/or a drawing. Maybe this AI system created a drawing. So,

you've got a drawing in your hand and you say, "Okay..." "Did you create that drawing?" And the answer is, "Yeah, I did." And so, that's fine. That's all they care. You say you created it. And you say like a license to sue. Well, what happens is somebody else two years ago created that very same thing, by some means, whatever means it is. It's the exact same thing. And they say, "Hey, wait a minute. You copied my work." That's the copyright question. You copied it. And then the litigation's about whether you copied it or not, or whether it was independently created. The famous litigation with George Harrison, the ex-Beatle at the time, with My Sweet Lord.

Robert J. Marks:

And He's So Fine.

Richard W. Stevens:

And He's So Fine by the, was it Mandells? Anyway, so the group before that had a very similar musical line; if you listen to the two, you go, "Wow. Yeah. There is some similarity there."

Robert J. Marks:

It's amazing. Yes.

Richard W. Stevens:

So the question was, in litigation, did George Harrison copy it or did he independently come up with it? Because it's possible to independently come up with things of this sort.

Robert J. Marks:

Yes. Yeah, yeah, it certainly is. And there's other ones too. I think that The Doors had, well, Hello, I Love You, and The Kinks had All Day And All Of The Night.

Richard W. Stevens:

Oh, yes.

Robert J. Marks:

And The Kinks were exactly the same. And The Kinks sued The Doors, and I believe they won.

Richard W. Stevens:

Yeah, I'm not sure about that. Maybe they settled out of court, 'cause they're still playing the song, so I don't know.

Robert J. Marks:

Yeah. Oh yeah, that's true. I think with My Sweet Lord by George Harrison, they just said that a percentage of the royalties had to be paid to the original writer.

Richard W. Stevens:

But you see, that's the issue in copyright, is it's, like you say, license to sue is a right to sue. We shouldn't use a term of art, but the right to sue is in the hands of the person who's claiming infringement. And

they have to show the, "Hey, wait. I did this first and you copied it," and there's different ways of proving that. I've litigated several of those and it's interesting work, but that's what you have to prove.

Robert J. Marks:

I inadvertently, at one time, used an image which was copyrighted, and I was contacted by the copyright owner that threatened to sue. And I found out, looking at the copyright laws, they are terrible if you lose. I think it was Sonny Bono, the Sonny Bono laws that came into effect when Sonny Bono was of Sonny and Cher. He was a pop songwriter who was elected to Congress and he wanted to make big bucks on his songs, and he put this into effect. And if you lose, if somebody says you violated copyright and you lose, you have to pay all their attorney's fees. I mean, it's just terrible.

Richard W. Stevens:

And there's liquidated damages and the rest. And before you get terrified by the copyright law though, it's always good to talk to somebody who practices copyright law, a lawyer who works in that area, because there are things that can be done that makes it tougher for the other side to say you actually did something wrong. There's also an ongoing series of scams, Bob, I don't know if you're aware of it, where people will send these demand letters, and they look like they're coming from law firms or collection agencies and that kind of thing. And they say, "Hey, we've detected that on your website, you're carrying a photograph of the... and we represent the rights holder and you owe us 1,000 bucks."

Robert J. Marks:

Yes.

Richard W. Stevens:

Take a minute before you just write back with your check. It may well be that it's actually a scam. And a lot of people are terrified by a law, so they just write the check and hope it goes away. But there can be legitimate legal defenses, and/or the person who's making this claim against you could be totally bogus and not have the right to sue.

Robert J. Marks:

That's really good to know. I've been much more careful. I only take the Wikipedia images these days, which are for common use, so.

Richard W. Stevens:

Yeah. And so Wiki Commons, I think, or Wikimedia or whatever. Yeah.

Robert J. Marks:

Yeah, exactly. Well, I want to get back to Jason Allen. Now, he did this award-winning thing where he submitted a painting that was made by artificial intelligence. It was art that won the first prize in this Colorado State Fair. Now, initially I would say this is not copyrightable because he used an AI program to generate the art and that's non-copyrightable, but Allen did something different. He said, quote, "I made the prompt to the AI program. I fine-tuned it for many weeks, curating all of the images." He claimed to have gone through over 900 iterations before the final submission, and this is a lot of iterations. I talk about Formula 409, which is named because it took 409 iterations before they perfected the formula. Or WD-40, which took 40 iterations before they perfected the formula. But this guy took 900 iterations.

Now, it seems to me, and I'd like your opinion on this, it seems to me that Allen was using the AI as a tool. He wasn't using the output of the AI, but he was using the AI as a tool in the generation of this art. As such, it seems to me that Allen should be granted a copyright. And if the answer to that is yes, then how in the heck do you document, when you apply for a copyright, that you iterated and this was not just the outcome of a single pass through artificial intelligence?

Richard W. Stevens:

All right. Well, you mentioned earlier that applying for a copyright's easy. It is. It's a one-page form, unless it's changed lately. And all you do is say, "I created it, and this is the date I created it. Here's my address, and here's an attachment of what it is," if whether it's a book or a music score or a photograph, or a photograph of a drawing, for example. I don't know enough about the case to know why Jason Allen, as we might say, made a federal case out of it.

Robert J. Marks:

Oh no, he didn't make a federal case. He's just defending against the idea that he just submitted an AI thing. He said, "No, I used it as a tool for a number of iterations."

Richard W. Stevens:

Okay. So, if we're talking about the people who are judging a contest for art and if they have some specialized rules for themselves, that's one thing. But if I'm looking at the Copyright Office, I'm looking at submitting that and sending it in, and I don't tell them how I came up with it or how many iterations there were. I never would do that. No, it's never called for in the application and there's no reason to add that info. So, if you wanted an actual federal copyright, you would submit the work. They don't know how many drafts. And you and I write articles for a living. I've copyrighted several, just 'cause I want people to know I came up with the idea first anyway.

Robert J. Marks:

Gotcha. Yeah.

Richard W. Stevens:

And I don't send them the earlier drafts. Why would I? 'Cause the final one is the one that I care about and that holds the expression of ideas that I wanted to do. And similarly, with songs and the rest. So, it doesn't matter how many different preparations you went through. So, that's why I'm saying the notion of describing that the computer did it or that it took this many iterations is not part of the application process of the Copyright Office unless you somehow want to make an issue out of it.

Robert J. Marks:

I see. Well, what if it went to litigation and somebody says, "This is the type of painting, or this is the type of art that would come out from an artificial intelligence"? I guess, you would have to put the artist on the stand and get in some sort of deposition that he did a bunch of iterations in order to dismiss the case.

Richard W. Stevens:

Well, what do you mean? To advance it?

Robert J. Marks:

Yeah, to advance it.

Richard W. Stevens:

But in any event, whichever side you're on. Yeah, but in any event, well, again though, the plaintiff in a copyright action is not going to challenge how you made it. The plaintiff in a copyright action is going to say, "Hey, I made that already and you copied it." That's the case.

Robert J. Marks:

I see.

Richard W. Stevens:

And then a defense to that might be, maybe the Jason Allen defense is, "I didn't copy your thing. Here's how I did it. And then I ran my computer and I generated all these things, and I liked the one I liked. And this is the one I published." And then someone says, "Well, wait a minute. You didn't actually do it." And then he hires you as an expert witness, who testifies and said, "No, Jason put in the parameters. He wrote the software, or he bought the software and has the rights to its output. He put in the parameters. This is the kind of thing he was looking for, and it's his expression that when he chose this one for publication, it embodies his expression using a tool."

Robert J. Marks:

So, does this take any teeth out of the ruling that art generated by artificial intelligence is not copyrightable, which is the current standing of the Copyright Office?

Richard W. Stevens:

Well, so don't tell them.

Robert J. Marks:

It seems to me that that's hard to defend, it's easy to gain.

Richard W. Stevens:

So yes, I would think it was easy to gain, but if you bring it up as part of your application, you're going to have a problem. And if indeed that's all you've done, is generated 10,000 different images, all of this various sort, and somebody else came up with it first and you say, "Nuh-uh, I did it myself and it was independent. It was a computer that did it," well, maybe that's where the gray area line is drawn. The Copyright Office isn't going to let people just make infinite numbers of photographs and say, "Hey, well, my computer did it." So, that may be a much more of a practical application thought process. It's one of the things in the court system in general, is that they don't like to have to keep re-deciding cases that are just generated... thousands of them. That's why we have class action lawsuits, for example. You don't want 10,000 plaintiffs, you want one plaintiff.

So, the same thing would be here. You just can't make a million photographs and one of them matches and say, "Well, I didn't copy it. I used a computer." They don't want to mess with that.

Robert J. Marks:

I see. Okay. So, you can game it. In your Mind Matters news article, Can a Robot Hold a Patent? We're going to provide a link for that in the podcast notes, you referenced the book, Ryan Abbott, The Reasonable Robot: Artificial Intelligence and the Law. I must admit, I haven't read it, but one of the things Abbott says, and you quote, "Human inventors are widely augmented by AI." And so, this goes back to the idea that AI is primarily a tool that is going to be used in human inventions. So in general though, for that book, what's your synopsis of the book, the Ryan Abbott book?

Richard W. Stevens:

Well, his thesis, his point, is that there has to be a general principle that AI has legal neutrality with respect to humans under the law. So that AI... and again, here we go again. What does AI mean? Well, we'll set that aside for a second.

Robert J. Marks:

And also, what does legal neutrality mean? I don't know what that means. Okay.

Richard W. Stevens:

Exactly. Exactly right. But first you say, who are you talking about when you say AI? What does that actually mean? And then, is entitled to or should be treated with legal neutrality. So AI, notwithstanding the attempts to confuse it, is hardware and software. It's a hardware that's running software. All that's created by human beings and runs by human beings, and its input parameters are by human beings and output is generated to human beings. All right. Now, that's what AI is. So when he says, the author says, that AI should have legal neutrality, what he's really trying to say is there shouldn't be special treatment for things that result from AI. That's actually what he means. And I read the book, and it's actually what he means. And he does not advocate, for example, that AI, hardware/software systems, should have rights themselves or that they have legal personhood, that they're, somehow should be persons.

And he skirts around it, but he doesn't really come out and say that AI should be held morally responsible for anything. So, he kind of says, "Well, not really." So, he does lean in the side of saying AI is a tool. At the same time elsewhere in his book, he says that AI has created numerous independent inventions all by itself, which is false, but he says that. So, one isn't really sure what the bottom line of all of his thinking is, but this notion of legal neutrality means that if an autonomous vehicle that runs by AI gets in an accident, it should be treated the same; the situation should be treated the same as if a person were driving the vehicle.

Robert J. Marks:

I see.

Richard W. Stevens:

You don't say, "Well, it's AI. We'll treat it differently." No, he wants it to be treated the same. Now, the same isn't easy; that it's not an easy concept, and we can spend hours talking about how that would play out in different ways. Similarly, with criminal misconduct; if there's some sort of a violent crime caused it, or harm caused by an AI-driven machine, you say, "Well, we're going to treat that the same as a human." Really? What does that mean? See? You are treated the same, but you can't. You're not going to jail the computer. Back in the ancient days in England, they actually would punish animals and punish devices that caused harm. Literally, they did that, but it doesn't make much sense to put a AlphaGo into prison. So, it's the notion though, it actually feeds his other sort of law and economics and social policy viewpoint, where he wants to try to encourage AI systems to basically relieve humanity from having to

work. And that's a whole nother thing. But he starts here with, "Well, anything that's caused by AI should be treated as though a human had done it."

Robert J. Marks:

Okay.

Richard W. Stevens:

And then lets you figure out in the individual cases, with his guidance, how you would actually do that.

Robert J. Marks:

One of the quotes he said that I did like, "If a person owns a machine," and I'm quoting here. "If a person owns a machine that produces property, then he would own that property, whether it was a loaf of bread or a trade secret." I like this example because it says you can have a bread-making machine and if you add the proper ingredients to the bread-making machine to make your own novel type of bread, that's kind of like taking AI software and choosing the inputs to the AI software to generate the painting. And just like the AI software should not be given rights, the bread-making machine shouldn't be given rights. And if you give rights to one, you have to give it to the other, which is ridiculous.

Richard W. Stevens:

Yes. And that's where the author of the book I think is correct and makes a lot of sense. And that's why I say it's kind of interesting the way the book kind of meanders around some of these ideas. But on that point, he says it multiple times, and I think that you and I and he agree that the AI system, hardware/software, programmed and input by humans, is a tool. It's a machine. People have said, "Oh my gosh, look at Big Blue. It's so smart. It was able to beat Kasparov in chess, and it's really smart." And I said, "Yeah, and a big earthmover is really powerful 'cause it can beat me when I have one shovel." But no one says the big earthmover... and some of them are giant, they can do so much, but they're still machines. They're just machines like a shovel, and somebody has to drive it, build it, and do all the things that are involved with deploying a machine to solve a human problem. So yeah, Big Blue beat Kasparov because the programmers knew how to write software that could beat Kasparov.

Robert J. Marks:

Isn't that true of all tools? All tools are just help and extension of human capabilities.

Richard W. Stevens:

Yes, and truly nothing else. And understanding how software works, which is one of the areas that I like to write about, and I know you do, is software is really sophisticated sometimes, but it's human thinking put into a symbolic form.

Robert J. Marks:

Yes. And all of the intellectual creativity comes from the human being.

Richard W. Stevens:

Every bit of it.

Robert J. Marks:

Yes. Great. Thank you, Richard. We've been talking to attorney and author Richard W. Stevens, and I really appreciate our chat, Richard. I learned a lot and it was fun.

Richard W. Stevens:

Love the subject. Thank you, Bob.

Robert J. Marks:

Okay. And so, until next time on Mind Matters News, be of good cheer.

Announcer:

This has been Mind Matters News, with your host Robert J. Marks. Explore more at mindmatters.ai. That's mindmatters.ai. Mind Matters News is directed and edited by Austin Egbert. The opinions expressed on this program are solely those of the speakers.