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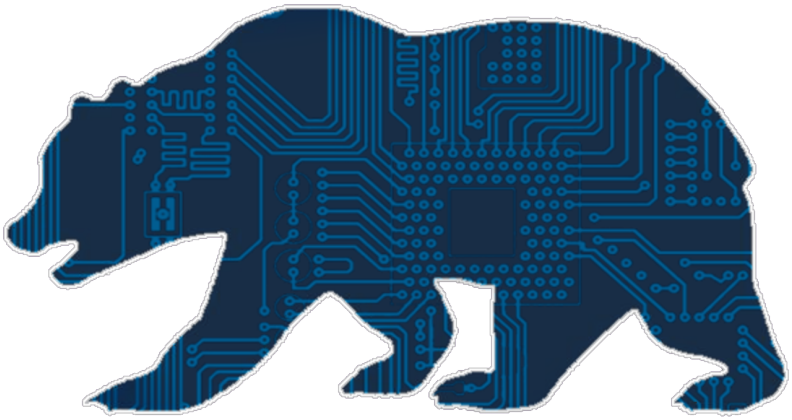

BTLJ Podcast, Episode 9
Do Robots Dream of Electric IP?
November 13, 2017

Featuring Chante Westmoreland, Tony Bedel, and Liz Freeman Rosenzweig

An interview with

Carrie LeRoy
Partner, White & Case LLP

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BTLJ Podcast 11/13/2017: Do Robots Dream of Electric IP?

[Note: This podcast has been automatically transcribed and may contain errors.]

Nick: [00:00:01] Welcome to the Berkeley Technology Law Journal Podcast! I'm Nick Calcaterra. In today's podcast, our hosts Chante and Tony speak with Carrie LeRoy, a partner at the Silicon Valley office of White & Case. They discuss whether artificial intelligence may create intellectual property.

Tony: [00:00:22] All right thank you so much Carrie LeRoy for joining us for the podcast. Ms. LeRoy is one of the tech transactions and IP transactions leaders at White & Case. Could you introduce yourself and also tell us about your path to this area of law?

Carrie: [00:00:37] Yeah sure -- and thank you for having me on your show so I'm a Berkeley grad from the class of 2000, Berkeley law. And my path is I started started at a firm ended intellectual property licensing I went in-house for a while where I headed up intellectual property transactions for a major semiconductor company, went back to private practice.

[00:01:01] I was at Skadden Arps for about nine and a half years and afterwards joined White & Case and I've been a partner at White & Case for almost a year now and it's a really interesting area of law. I live in Silicon Valley. My clients are all focused on technology and innovation. It's a creative, thriving, interesting area of law. So my path is really just being drawn to being a part of that in some way. So I just love feeling like I'm I'm a part of coming up with solutions to problems around innovation. I give a lot of advice on things like intellectual property ownership and protection and monetization. It's a very cool area.

[00:01:41] Certainly! Now, I just heard you get an interesting discussion on technology at the Berkeley Center for Law and Technology. Could you tell us a little bit about what robots have to do with this area of the law?

[00:01:52] Yeah, I mean that's a very open-ended question. But I will say that we are moving into a direction where there will be a significant amount of creativity that is either a product of artificial intelligence or at least somehow informed by artificial intelligence. And so the talks that I just gave really focused on the current intellectual property protection regime in the United States and whether or not AI creativity, you know robots, have intellectual property rights you know whether machine generated creativity is capable of fitting within the current constructs or the need to be some changes to adapt to the future of AI creativity.

Chante: [00:02:40] Can you tell us about some of the major field examples where artificial is intersecting with intellectual property?

Carrie: [00:02:48] Yeah sure. So there are there are several areas.

Carrie: [00:02:53] There's machine learning, there's areas of sort of data mining and figuring out how to match certain needs with particular users online. I make a distinction between artificial intelligence in the form of say software programming. So all of us rely on that to an extent. We have machines that are helping us to become more efficient to get to places. These are software programs that are very helpful. We are entering a new phase where we will we will be seeing an increasing amount of independent judgment exercised by machines to solve problems and that will be an interesting area.

Carrie: [00:03:39] And as I said during my talk I have a lot of questions myself because this is really a nascent area. We will see broad implications in my talk. We've focused a lot on autonomous

driving self-driving cars you know and what was the legal liability landscape will look like and we focused on things like ownership of copyrights and patents and how you know whether or not machines can actually have received credit. Under our current system for that type of intellectual property.

Carrie: [00:04:11] But you know we will see that it artificial intelligence does and will continue to impact many different fields across sectors from you know from aviation, drones, self-driving cars to sensor technology things that help us to get around to make decisions.

Carrie: [00:04:34] So it will be very interesting to see the shift away from human consciousness in decision making to machine consciousness and decision making.

Chante: [00:04:43] Right, so you're really differentiating between from what a human is putting into a machine, and a computer may help facilitate, as opposed to machines that are controlling the decision-making process itself?

Carrie: [00:04:58] That's exactly right. And so I think of it as sort of like if you think of problem solving I could ask my calculator, which is technically a machine, I could say what's two plus two and it will spit out an answer. It will say four. I hope. But if you know that's that simple right. I asked it something it told me it's a machine that's telling me an answer. If I ask my machine to solve a problem for me like I would like to develop a new mobile phone a new cell phone that is superior to the current market leading phone--whatever that is I would be saying something more abstract like make it better. Make it work better have it make sure that it has all kinds of bells and whistles that will make it more appealing to consumers. Now these are the things if you or someone of an engineer part of a design group you might think about how do we make our products superior. What will happen when you ask a machine that will basically mine data fields out there online. And it will read all of the patent applications will read all of the patents out there to find out and map those to the best selling products and figure out how I can solve your problem. Here's how you're going to do it.

Carrie: [00:06:10] And will actually come back to tell us you're not a simple answer to a simple question like what's two plus two but how do I improve something how do I solve my problem. How do I make my art work better.

Tony: [00:06:25] Hey listeners is Tony here just want to give you a little bit more background. So in copyright what we're talking about is a creative work fixed in a tangible medium. A creative work could be a book, photo, music. For a tangible medium, think of something that records or fixes that creative works into something. It could be the physical sculpture--the plaster, the writing on a piece of paper, the recording of the audio on a vinyl record or MP3 file. For copyright, the basic idea is that when you make a creative thing you get a copyright which means that you have a property right in that thing. The key function of that property right is you can exclude others from using it. They can't copy your book. They can't sell your audio. And as soon as you make the work you have the exclusive rights to use it. But when you register with the federal government and register your copyright then you'll get more tools for suing. Patents relate to inventions. You have an exclusive right to use that invention. So an invention could be a type of americium a machine specific process compared to copyright. You need to do a lot more work to get that protective right, that property right. You basically need to put together an application and send it to the federal government. That shows what your invention does. If the government thinks that meet certain requirements you will get an exclusive right to use it. One important part of this application are the claims of the invention. This is the core of the patent.

Tony: [00:07:54] They define what the patent is and what it is not. The danger of making really

broad claims is that the patent office will look at it and think this is too broad--it has already been invented and reject the application. The other really important part of the application are the teachings of the patents. Basically you need to show other people how this invention works.

Tony: [00:08:15] And so that's touching on copyright and patent. Let's break that apart for our listeners.

Tony: [00:08:22] Copyright could be all sorts of different creative things but how are you advising your clients right now to think about the originality requirement in copyright law when it comes to AI or any type of machine, or any type of computer generated creative works.

Carrie: [00:08:41] Yeah. So that's a good question. So just starting with copyright.

Carrie: [00:08:45] To have a copyright you need to have some sort of original creative input. There was a recent case involving the famous monkey selfie case where it was made clear again that you need to have a human element you can't just have you know an animal or random generated creative output. There has to be some human involvement.

Carrie: [00:09:09] Now these questions are new and a lot of my clients are not running to me saying how do I make sure that my software program is going to continue to be copyrightable. They're not thinking that far ahead. But I do imagine that at some point they will be focused more on this question of making sure that if the machines -- if you have for example a team your engineering department is now 15 machines and one human being, what I would tell that client from an IP perspective is make sure that that one human being revues modifies improves does something different with the output generated by the machines to make sure that you are continuing to demonstrate that you have human involvement as opposed to just machine generated output.

Tony: [00:10:01] Is that on the front end of coding and the optimization that goes into the AI itself, or is this after the fact when you refine whatever is going to final product.

Carrie: [00:10:16] It's Yeah I mean that's a good question and it could be actually on both sides right.

Carrie: [00:10:20] Because if you have machines that again depending on what you're asking the machine to do if I'm giving you something if I'm saying here's my software program now improve it. And that's the input that it's getting. I still own the software program. The question about what is it doing in terms of improving it. If I didn't really have anything to do with that and it was making independent decisions there's a question about whether that's my creative input or if the machine is just making these decisions independent of my input. But I would say on both sides making sure that humans are involved on the input. And saying here are the parameters Here's what the limits are. And as lawyers we need to always think about OK did we build in the right legal framework and limitations as well. Because it's one thing to say go out and build you know a cool new device. If I didn't say and what you can't do is go out and mine all of Apple's patents to figure out how to build in the functionality and features that make the iPhone 8 fabulous. That has to be built in as a limitation so that I'm not responsible for telling the machine to do something that is technically infringing. And on the other side of that when the output comes out like in the case of the monkey selfie where the photographer who went into the jungle to take a bunch of pictures and left his camera laying around and the monkey just grabbed his camera and took a picture.

Carrie: [00:11:47] In that case had the photographer taken that picture and cropped it or added a filter or did something with it. That demonstrated that he touched it. There's a human element of creativity in that process. He would have had a copyright.

Carrie: [00:12:01] The fact that it was completely untouched by human, machine generated output, from a copyright perspective is not protectable.

Tony: [00:12:09] So unfortunately all my security camera footage of my cat walking around is machine generated so I dont.

Chante: [00:12:19] But more importantly, that machine can't own the copyright.

Carrie: [00:12:19] And at this point yes it's not in the Copyright Act but the copyright office has issued, essentially recommendations, so people understand advice about you know actually this doesn't mean it has to be human. Right. And the patent patent law is much more clear on this point. Human inventorship is very clearly defined within the patent act.

Tony: [00:12:40] Tell us more about that within the Patent Act. How would you advise clients devise their claims in a way to capture as broadly as possible still also educated sufficiently within the terms of the patent application.

Carrie: [00:12:56] Yeah that's another good question. So we right now we're looking at a lot of I would say they're somewhat suspect patents that issue on the basis of what looks like machine generated creativity or inventiveness.

Carrie: [00:13:11] And so if anybody takes their invention or method and talks to a patent prosecution attorney, that attorney is going to say well you need to list yourself as the inventor. So that's going to be the advice. Now there may be changes to that in the future that you know that assumes some degree of machine creativity.

Carrie: [00:13:32] There are patents on things like the creativity machine and if you read the claims of the patents it sounds like it's not just designing a machine that does these things. The claims actually cover the creative output of the machine. Which technically, you would then say well that claim the inventor should really not be the person who created the machine but the machine that is actually doing that independent inventive act. So we will see what that means in the future so far this has been untested in the courts but it may be that there are more challenges to those kinds of patent claims validity challenges where you know if those patents are enforced against third parties that those parties will then say wait a minute, who's the real inventor here.

Chante: [00:14:17] Can you think of any policy that would kind of explain the difference between, when it sounds like in copyright, they're saying absolutely needs to be a human person that has some modicum of originality in order for it to be copyrightable but in patent it sounds like that might be a little bit more murky can you think of any reasons why that difference makes.

Carrie: [00:14:38] I think that the patent law is is assuming human inventors ship not because machine inventor ship is inferior it's because it simply didn't exist.

Carrie: [00:14:51] So a lot of this we're now looking at well this is a new era we're about to have you know drones dropping off our kale from Whole Foods - Amazon merger you know and it's a new era. And so if there are going to be all these changes I think I don't I don't think you should have more protection for your intellectual property if you're the person or the company that invested in the creativity machine and whatever that machine does. In my mind that should probably still be yours and you should be able to patented even if it's exercising some degree of independent judgment. But our system doesn't really contemplate that. It's interesting in the UK they have a slightly different copyright law which does focus on the extent of your investment.

Carrie: [00:15:44] It's more of an investment model you know expended resources it's your time, you're the photographer who went into the jungle and spent all this money on cameras. If anybody has a copyright it's you because of that alone even if your creativity wasn't really involved in it. Yes we may see it we may see the U.S. intellectual property system move more in that direction as well.

Tony: [00:16:07] Now is the solution for clients to counsel them more in the direction of trade secret?

Carrie: [00:16:12] Yeah I think so. And I do think this is another area that I feel that we'll see evolve. Right now we look at it as patent protection as you know of high value. You see most litigation that you know in the patent area you see these very high judgments against infringers. You can receive a royalty and license fees for infringement of a patent and it is the right to exclude other people. Trade secrets don't have that value. In other words, if two companies come up with the very same brilliant idea they can each exploit it separately and independently as long as they keep that idea a secret, and they use reasonable processes, you know measures, to protect the confidentiality of the trade secret. So trade secret law doesn't require creativity or a human element necessarily it just requires that you have an idea that has value that you keep a secret. And if you do that you can continue to exclude people.

Carrie: [00:17:16] From using your trade secret unless they independently come up with it. So good examples like the Coca-Cola formula. Right. So we may see more of this where someone who's looking they purchase the creativity machine. That machine is coming up with solutions to abstract problems, like I would like to improve this process help me out with that. I have no idea what to do. I'm not even an engineer and you know help me solve this engineering problem, creativity machine. The machine is actually coming up with the idea. Well did you consider these five things what if you did these two things first and then this other thing. You follow the steps, but the machine solves your problem. You may not be able to have a patent on that but you could keep it a secret and as long as you keep it secret. And as I say that other people could go out and buy the creativity machine and it could come up with the same solution but you know again as long as it's independently developed everybody can use their own trade secrets and they can exclude people from using their trade secrets, unless they separately and independently came up with them and they can prove that. So I think it is. It could be come more of the default intellectual property protection for AI.

Tony: [00:18:33] One of the interesting things is that at the same time with these machines, in automated vehicles, we see a heightened call for regulation by government. They'll say, well let's take a look under the hood and find out how exactly those cars are going to make these decisions. Is trade secrets still going to be able to survive as a viable protection when we have regulators prying into the various forms of decision making.

Carrie: [00:19:01] Yeah that's that's I think that is certainly one we will have to see how that evolves. You don't necessarily lose your trade secret protection because you disclose it to a think tank or the government. If it becomes part of a recommendation or you know an official sort of statement about here that here the parameters here are the rules. Yeah, you don't have a trade secret anymore because it will be in the public domain. So you have to follow that. That'll be an interesting area to see to see how it evolves as a one of the other questions that we had.

Chante: [00:19:37] And another thing we've considered is how to you foresee robots or machines granting consent for use. So that if the robots or machines are the ones that have produced a thing--a software code. How do you see them granting consent

Carrie: [00:19:56] Yeah that's an interesting question. And it again assumes some kind of human consciousness.

Carrie: [00:20:01] I like these questions, in my talk today we talked about the question of like what's a reasonable person from a negligence standard or what's a reasonable self-driving car. As humans driving a vehicle you're responsible for certain kinds of infringement if you have knowledge. What does that mean for you know an autonomous vehicle. Right. It doesn't have consciousness. So even that the way that that question is phrased as is interesting because thinking about a machine giving consent does the machine have the same rights as a human being that's going to be one of the questions that is answered from a policy perspective. Our intellectual property regime right now says absolutely not. Machines are like the monkey in the jungle. You know you don't have the same rights if you are the owner of the machine and your machine is you've either built a machine or you've paid for the machine and it's doing something for you. Then there's there's there's nothing that says you can't use the results without the consent of the machine.

Carrie: [00:21:10] I think again that's a very sort of human-centric concept like you can't infringe my rights. Well mot my rights as a person. That's sort of missing from that. So far we don't live in a time where machines really have rights. I think that's probably a good thing.

Chante: [00:21:26] Yeah I don't want them to!

Tony: [00:21:31] I want to hedge and say that I welcome my robotic overlords--I'd rather be a pet.

Carrie: [00:21:42] I just want them to do all the work that we don't want to do.

Chante: [00:21:45] Yeah.

Tony: [00:21:46] Yeah. All right, well thank you so much. Ms. LeRoy.

Carrie: [00:21:48] It was my pleasure. Thank you. Thank you for having me.

Nick: [00:21:55] Thanks for joining today's podcast Today's episode was brought to you by Chante Westmoreland and Tony Bedel, with production help from me. Nick Calcaterra.

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