



Health Care Podcast Series

Episode 1: Current and future topics associated with Health Care NFTs

By: Philip Hammarberg and Zachary Cohen

Philip Hammarberg: Hello and welcome to the Garfunkel Wild Health IT podcast. I'm Philip Hammarberg, an associate with Garfunkel Wild in the Health IT Department and I'm here with Zachary Cohen, who is a partner in the Health IT Department.

Philip Hammarberg: Today, our topic of discussion will be health care and NFTs, with a focus on the future of health care using NFTs. So I guess Zach to start this off, what's an NFT?

Zach Cohen: Hi. NFT stands for non-fungible tokens and they are very much like cryptocurrency in that they're done on the blockchain which I'm sure, maybe it will be a conversation for another one of these IT podcasts and more into blockchain technology but an NFT is a non-fungible token as opposed to a cryptocurrency which is a fungible token. So if you think of bitcoin, that is a fungible token - if you have one and I have one and we switched them, no one cares - they're worth the same thing. Non-fungible tokens, NFTs, is more like a certificate of authenticity to the art that is on that NFT. I've read about this digital artist who sold a piece of art NFT for you know millions, might have been \$60 million. There are these crypto punk NFTs that sell for 10s of millions of dollars they're all different, just like art is different, just like music is different, so each one of these NFTs, if I have one and you have another, we might not want to just trade it straight up because they're not the same thing. They have different aspects to it or properties to it so that's why they're non-fungible tokens as where cryptocurrency is a fungible token.

Philip Hammarberg: Interesting.

Zach Cohen: And so it's been booming lately, NFTs. And a lot of NFTs are in the entertainment field right now. A lot of people, if you're into sports or you read the Wall Street Journal, and things like that you've probably heard of Top Shot, which is basically digital basketball cards or their digital basketball moments that you buy and trade, and from that it just kind of exploded into again a lot of art, music, things of that nature. Now it's all very interesting, and very cool but what is really interesting is kind of what else can be done with NFTs.

Zach Cohen: So, for instance, at some point, it's unlikely that right now a lot of people buy books on their Kindles, at some point you're probably going to buy a book that's an NFT and you know it's from the author and you know it's not a fake of some sort, it doesn't take up as much room, it's going to just be kind of extrapolating out, and we'll get to the health care aspects of that in a second.

Zach Cohen: Basically you'll get this software on your computer. You download a digital wallet and you can then buy these NFTs and they get stored on your digital wallet and then you can access them through their different websites that allow you to access them or you can view some of them straight from your digital wallet.

Philip Hammarberg: OK. So, now that we have a background regarding NFTs, you alluded to applications regarding health care, what are some of the possible applications that are being used either now or in the near future, or even beyond that.

Zach Cohen: Sure, so one that I'm aware of right now is blood donations using NFTs. So if I were to give blood, my blood, the characteristics of my blood, type A or type O or any other characteristics, it can be my name, what day I gave the blood, whatever other significant pieces of data are needed, can be put into an NFT. And then the cool thing about blockchain is it's very easy to then track where things are. So with these blood donations, the information would go into an NFT and then you can follow that donation from "okay it went from the Red Cross to this hospital, into the hospital's blood bank" and then you have all this data available to you so that you can then cross reference it with "Okay, we need, this patient just came in and needs this blood" and I'm not a blood expert, but they can then use the software now they're using for this to see "okay at this hospital and these three nearby hospitals, we have this many pieces of blood that meet," and it can then be coordinated, where it is, you call that hospital, they bring it over to you, they again move that NFT and they transfer it to you. And it's just going to be a much more organized on the blockchain system where then you can get blood where it needs to go by, again tracking it on the blockchain.

Zach Cohen: So that's something that I know is going on now. Some things in the future, I think the biggest one is going to be health records. Right now, you and I, and everybody listening has health records, but almost none of us actually know where they are, know what's on them, because the doctors are custodians for them and they keep them. And that can be frustrating at times because it's not always easy to talk to your doctor, get in touch with them, see what's on your record, know where your record has been. Sometimes, I have switched doctors before, for whatever reason, and I call the doctor, I fill out a form, so that they'll send my records to my new doctor, I get to my new doctor and they don't have my records. That's just kind of status quo and we just all kind of accept that but, once the health records are digitalized and made into an NFT I can actually be the owner and custodian of my own records and then, if I'm making a doctor's appointment, I can send my records directly to that doctor. I don't have to count on the doctor to move it for me.

Zach Cohen: And then this has a lot of other applications to it. So now when you're able to know where your records are, and you are the owner of them, you can benefit first off because now, you know what's in them, you know there's nothing that shouldn't be in them that is them because people can't do something to your own NFT without you giving permission. But then also you'd be able to track where they've gone and you might even be able to start making some sort of residual income off of your data.

Philip Hammarberg: Interesting.

Zach Cohen: For instance, Pfizer might one day say "hey we're looking for people, we're looking for data, we're looking to start a trial. And we want people with xyz" and you can say "I have xyz - here I'm sending you my NFT that has all my medical records on it for you to crunch the data" and they might say "Okay, we're going to develop something with it, and everyone who's records we use will get X percent." Or something along those lines.

Zach Cohen: Google might just say we're looking to create something, and we want to see people's medical records and we'll pay you 50 bucks if you send them to us. So you kind of be able to be in charge of your records and figure out what you want to do with them.

Zach Cohen: And another thing while I was just talking about Pfizer. I don't know if they're actually doing this yet, but again, another thing that I'm sure if they're not doing it they will be doing it, is pharmaceuticals using NFTs so that they can again, make it easier to track where their vaccines or drugs are going and to know that they're authentic. Because if there's a fake vaccine let's say, you know it, because when you looked at the NFT for it, if it's not distributed from Pfizer, you can't fake it, only Pfizer can make that NFT. No one else can do it under Pfizer's name so you'd be able to track it and then you'd be able to put all the information about that drug, the batch numbers, where it was distributed.

Zach Cohen: And then let's say there is a problem, and you need to recall a drug. You now know every single person who got that batch because you can track the NFT on the blockchain and then you can contact these people and say the drug you got was recalled or there's this information you now need to know about it. Prescription orders can be connected to an NFT where a doctor makes an NFT that then goes to the pharmacy and you can't forge it and the basic thing to keep in mind with these NFTs and data is it's trackable and you cannot forge anything on it. So there's just a lot of applications, then that can work with in the health field.

Philip Hammarberg: So, I guess bringing the conversation full circle back to contracts and health care IT contracts. It seems like there could be issues that we might want to address and contracts related to the ownership of the NFTs.

Philip Hammarberg: You talked about the patients owning the NFT similar to the way that they own their health records. Do you think you'd have providers that might contractually try to assert certain rights related to the ownership of the NFT, at least initially, until they assign it to or transfer it to the patient?

Zach Cohen: Possibly I think we're going to see is a lot of licensing of your NFT to people and so the doctor might say to you, when you go to a doctor's office you have a bunch of forms you fill out, there might be a form that says, you'll provide us access to your NFT and you'll license it to us to be able to use it for this, this, and this. I don't know if there'll be ownership issues that might be who knows.

Zach Cohen: And another thing that's really going to come up from our perspective is going to be data security. How do you secure these NFTs in your digital wallet to make sure somebody doesn't steal them from you? Just because an NFT is trackable and you can't forge it, doesn't mean that someone can't steal it from you. Obviously, that's going to create a host of issues and figuring out how to best secure these digital wallets. And that's an ongoing issue with all IT, security. This is just going to add another layer to how do we do that, how do we make it so that systems aren't getting hacked and all their NFTs are being stolen.

Zach Cohen: Because in that world of data security and blockchain, it is easy to be anonymous so, even if I know, here's all these digital wallets have a wallet address and I'd be able to see where it is, I wouldn't know who the person is that, had it, who stole it, I would just know well, here it is, but how do you get that person, and sure there's going to be scams when people are going to make you pay money to get your NFT back and stuff like that and there's going to be phishing attacks that clicking on something that gives someone access to your wallet and then they're going to get in your wallet and steal stuff so that's going to be, I think the next big thing is, again, how do we keep these things, secure and potentially what regulations are there, or how does HIPAA evolve to start getting inline more with the technology that's out there.

Philip Hammarberg: It's a very interesting question and, as you mentioned, you could have ransomware attacks and certainly that could be very harmful to patients if they need medical treatment and their records are being held hostage by some nefarious actor. Certainly an interesting topic for another day.

Philip Hammarberg: I think at this point that we're a little bit over our time, so to the listeners, please like and subscribe and we'll be back next week or so with the next Health IT Podcast.

Zach Cohen: Thanks a lot Phil.

Philip Hammarberg: Thank you.