



Interview with Stephen P. Williams

**For podcast release
Monday, April 8, 2019**

KENNEALLY: What if the next big thing turned out to be the next everything? It would need to be a technology so powerful, yet so pliable that it could find a place in every industry, any activity, and all manner of creativity.

Welcome to Copyright Clearance Center podcast series, I'm Christopher Kenneally for Beyond the Book. Blockchain is the next everything, asserts Stephen P. Williams. His latest book offers an explanation in layman's terms of how the technology works, and even suggests reasons why so many people struggle to understand it. Venture capital investment in blockchain companies is no mystery, though. In 2018, according to PitchBook, the number of deals doubled over the previous year, with blockchain startups raising nearly \$3.9 billion. The cryptocurrency bubble may have burst, but blockchain investment remains strong, and the number of business applications continues to grow. Even Walmart has reportedly begun to require produce suppliers to use blockchain technology for more transparent transactions.

Blockchain: The Next Everything portrays a superpower technology that can preserve truth and destroy brands in a single bound. Author Stephen P. Williams joins me now from his office in Chelsea in Lower Manhattan. Welcome to Beyond the Book, Stephen.

WILLIAMS: Hey, thank you for having me.

KENNEALLY: Well, thank you for writing this book. We have been chatting with other authors and interested parties about blockchain for the last several months on this program, but your book, *Blockchain: The Next Everything*, attempts to communicate the essentials of blockchain of technology for those of us who haven't been following technology in the way that somebody inside the industry has. And so for me, the most important insight was that blockchain does this sort of mystifying act for people. It just bewilders them, almost automatically. Explain that, Stephen, how does that happen?

WILLIAMS: Well, I think it happens, first of all, because it's such a peculiar name – blockchain – so no one can quite picture what that is, and in reality it's just software. But I think the second thing is that most of the books and articles and things written about it have tended to obfuscate it with discussions of deep technology that very few people understand outside of the developers' circles. So the point I tried to make with this book was to – when I taught myself I had a lot of trouble understanding it, and I decided that we needed a book that was just very easy and engaging with a lot of anecdotes and



storytelling.

KENNEALLY: So help the listener, then, imagine blockchain just as you were thinking about it as you were writing this book. What do you want us to see? What do you want us to understand about blockchain?

WILLIAMS: So the basics of blockchain are that it's a digital ledger that records information in a way that can't be hacked. So the information is permanent. But it goes way beyond that in that it's a foundational technology that people can use to build other applications on top of and use it in all kinds of ways.

The thing that I find most exciting is the fact that it's a distributed technology which is a new way of looking at the world for us. We generally respond very well to hierarchical systems, top down, president, father, mother, teacher telling us what to do. With blockchain technology, it allows a distributed system where everyone who participates in the system has an equal say in how that system works. And I think there is huge potential for designing new ways of doing business, of creating, of communicating.

KENNEALLY: In fact, it sounds like we almost are having a second crack at the Internet because the way you describe blockchain is very much like what the Web or the Internet really is, which is a place that people can build on, and this is what blockchain does. It's an opportunity for people. You called it, at one point in the book, a soul-free tech platform.

WILLIAMS: Yes, I would actually our third crack at the Internet. We had the Internet of the '70s and '80s that was very, very difficult to use, and then the Worldwide Web came about, and people were able to build applications on it, and that's what most of us use now. It was a web that was based on information – the flow of information. So this third Internet that's being developed with blockchain and other distributed technologies is a web of privacy and transparency, which is a paradox, and also a web of transfer of value, so that we can use it to transfer anything of value, including intellectual property, money, ideas, everything.

KENNEALLY: Explain this paradox of privacy and transparency. Privacy is a critical point for everyone today, in business, just individuals, as well, because it seems as if there is no privacy online as we know it today.

WILLIAMS: Yes. Right now companies such as Facebook and Google treat us like crops in the field. They swoop in, they harvest everything, they leave nothing, and they pay nothing. The Internet of the future, based on blockchain will allow each person to have their own identity and to store their data within their identity and release what they want to a healthcare provider or to the corner store when you're trying to buy a pack of



cigarettes or liquor, or to tax authorities. You'll be able to choose what you want to release, and that includes what you want to release to Facebook or Google.

KENNEALLY: And you emphasize the importance of this distributed network. In a distributed network, the more participants, the better.

WILLIAMS: Yes, that's true because a distributed network keeps the information on the blockchain secure because the information is stored in a cryptographic representation on every computer that participates in the chain.

KENNEALLY: For those of us who are still struggling to understand, I think after trying and attending programs to really listen closely I'm beginning to get it myself. But I want to return to this point about the ownership of data. How is it that blockchain allows an individual to retain control or regain control of that personal data?

WILLIAMS: When you add your identity to the blockchain, it's encrypted, and you have a key that is a private key that controls that information. You can share that information with other people by giving them a public key that will access the information that you've made public so that you're in control of your data at all times unless you give access to someone else. And this is totally different from what you're doing right now with your telephone where every contract you sign to use an app basically asks for access to all of your data, which is why companies know everywhere we go, everyone we call, and everything we buy. It's why you get an ad for a pair of fancy shoes when you look online at a different pair of fancy shoes.

KENNEALLY: And what's interesting about this, for those of us in the media is this ownership of data can also include the ownership of our creativity, of our expression of ideas, whether it's journalism, such as you practice, whether it's a novel, whatever it could be, this ownership that extends to all of our digital output.

WILLIAMS: Yeah, very interesting aspect of blockchain technology is that it allows for rare digital property rights, so that right now if you're an artist and you have a photograph that you posted on the Web, anyone can copy it and paste it or print it and put it on their wall, and it tends to diminish the value of the original. It makes it very hard to have original property. Now with blockchain, you can take an image, you can make a cryptographic, what's called a hash, of that image which is a cryptographic code that represents that image, and you can register that on the blockchain. It's sort of like putting metadata onto a blockchain. Then, in the future, only that original image will have that code attached to it. And any other copy you'll be able to see instantly that it was basically stolen or copied, and so those copies have less value than the originals.

It's kind of a hard concept to understand, at least it was for me, but it's very valuable for



artists now, and it's opening up a whole new world of something called rare digital art, where people trade art that it has a code that shows that it was registered on the blockchain.

KENNEALLY: We are speaking right now with Stephen P. Williams, the author of the new book, *Blockchain: The Next Everything*. Stephen, those listening will certainly be familiar with an aspect of blockchain technology called bitcoin, and currency related to bitcoin. That has experienced a kind of a bubble-bursting moment, and it has called into question a lot of the hype around blockchain. How do we get over that and really still see the impending dominance of blockchain in our technology?

A: Yeah, I think the rise of bitcoin last year to \$20,000 was – or near \$20,000 – was unfortunate in some ways because it did create this image of bitcoin as being a speculative instrument, good only for greedy people. It's since dropped down to about 3,000. Just today it's gone back up, it's near 5,000, so it's a very volatile currency. There are a couple of thousand other currencies, also – cryptocurrencies – only a few of which are important. So I think that the idea of speculating in bitcoin right now is a waste of time and not something that people should really be spending a lot of time thinking about.

However, I do think coins like bitcoin, ether, and other coins can be combined with blockchain to produce miraculous results that really have nothing to do with the financial system. By that I mean that businesses and nonprofits can use coins and tokens to incentivize people to behave in ways that can be very beneficial for humanity and the planet. For instance, if you had a group of businesses that formed a chain and created a token that rewarded other businesses for reusing materials and thus reducing our carbon output, that could be a real game-changer for an area of our lives that our governments don't seem to be really effect much change with.

Q: Well, another way I think that blockchain is potential game-changer is in this media sphere that you and I work in every day. You point out in the book that blockchain allows for the preservation of truth. It's this unchangeable ledger of activity. Of course, preservation of truth and countering fake news is an activity many of us are interested in these days. You also see blockchain as being perfect form for online narrative.

Explain first how blockchain will be a kind of an antidote to fake news, and why moving forward for anyone working in media, blockchain will become a kind of essential tool for narrative expression.

A: Regarding the fake news, I do want to say one major caveat with blockchain is that because it is a soulless technology, it doesn't determine whether something is true or false. It records the information that is put onto it, so that it does have the problem of garbage in/garbage out. However, if you do put garbage on the blockchain or you put



something untruthful, that act of yours of putting something untruthful on that chain is recorded permanently and could have a huge effect on your reputation going forward, so that I think it inhibits people from behaving in that way. But if a true fact is put on the blockchain, it is there permanently, and then if someone in 20 years decides to tell a story about what happened 20 years ago or take credit for some historical event, it's very easy for people to check and see when that information was originally recorded and there will be no disputing which is correct.

As far as being a narrative device, I found that when I was writing this book I consciously had the blockchain in the back of my mind as I was designing the layout on progression of this book. If you read the book you'll see it's basically made up of a lot of discrete blocks of data, stories, short chapters, that are strung together on a chain, each one referring to the previous one. So that's a very metaphorical way to use blockchain technology in creation.

But with storytelling for companies now are so – the story is the thing for modern business and for modern marketing. A lot of these stories are fake, they're totally manipulative and made up. I think that with blockchain, with the transparency that it provides, giving people the ability to see what exactly went into certain products, it really keeps companies on their toes, so that if they make a claim that their, say palm oil, is sustainably sourced, it's going to be obvious to the consumer, by looking at a blockchain, whether or not that is true. So what it does is demands that companies be truthful and live the story that they are perpetuating.

KENNEALLY: Well, I have to say I enjoyed the way the book was put together. I hadn't realized the metaphorical aspect of the composition. It seems as if you really have taken on this notion of the medium is the message and allowed us to see the value of blockchain. And I appreciate, Stephen P. Williams, your helping make those connections for us today in our discussion about your new book, *Blockchain: The Next Everything*. Stephen P. Williams, thank you for joining me today on Beyond the Book.

WILLIAMS: Thank you so much, I appreciate it.

KENNEALLY: Beyond the Book is produced by Copyright Clearance Center. Our co-producer and recording engineer is Jeremy Brieske of Burst Marketing. Subscribe to the program wherever you find podcasts and follow us on Twitter and Facebook. The complete Beyond the Book podcast archive is available at beyondthebook.com. I'm Christopher Kenneally. Thanks for listening and join us again soon on CCC's Beyond the Book.

END OF FILE