



Episode 1,032: Bitcoin, Present and Future, with Roger Ver

Guest: Roger Ver

WOODS: I owe you an awful lot for getting me interested in Bitcoin. Let me just put it that way. I don't even know if you remember this, but we had a lunch together years ago in New Hampshire. You were there, Eric Voorhees was there, and you were really trying to bring me on board with Bitcoin. And up to that point, I thought this is too hard to figure out. I mean, I'm sure there's something to it, but I'll just never get around to it. And I became convinced that you were right and I wound up buying into it, and boy, that decision sure paid off [laughing]. So thanks.

VER: My pleasure. I was wondering if you remembered that too, because I remember our lunch very clearly at the New Hampshire Liberty Forum, and it was a fantastic I think turning point for Bitcoin in general. We had you and a number of other libertarian luminaries kind of brought on board to Bitcoin at that event, I think.

WOODS: That's right; that's right. Okay, I'm glad you remembered that because that really was great. Now, ever since then – I just started reading a book that Bob Murphy coauthored called *Understanding Bitcoin*, because I'm still – There's a *Simpsons* episode – I find *The Simpsons* sums up everything. You can find an example for everything in the world in *The Simpsons*. And there's an episode where he's trying to learn marketing, so first you see him reading a textbook on advanced marketing. That's too hard. So then he starts reading a book on beginning marketing. That's too hard. Then you see him looking up in the dictionary the word "marketing." And so that's kind of where I've been [laughing].

But I think I'm getting to a little bit of an advanced stage now, but you know, I have five children, I have so many responsibilities, but you guys are doing so much of the heavy lifting in terms of explaining Bitcoin to the public, both what it is, how it works, and what its advantages are. Now, I would like to start off asking you something that you get asked every single time you are interviewed. But I'm asking it of you partly because my listeners need the answer and partly because I wonder how you've refined your answer over the years after having been asked so many times: can you explain to a lay audience briefly what Bitcoin is?

VER: So Bitcoin is one of the most important inventions in all of human history, right up there on par with the importance of electricity or the wheel or the Internet itself. That's how big of a game-changer it is for all of us. And the reason it's such a big deal is, thanks to the invention of Bitcoin, now anyone anywhere in the world can send and receive any amount of money with anyone else anywhere in the world basically for

free and they don't need permission from a bank or a government or a corporation or anyone at all, for that matter, and nothing like that has ever existed before in the entire history of humankind. And I'm sure all of your listeners are free-market advocates. Just think about the ramifications that that has that it allows everybody in the entire world to participate in the same free market wheel with anybody else on their own terms. That's a really, really powerful thing.

The way it was done was through this thing called the Bitcoin blockchain, which is basically a worldwide ledger that keeps track of who owns what Bitcoins. And instead of that ledger being stored on one computer of PayPal or Visa or Bank of America's world headquarters, it's stored on everybody's computer that's running a Bitcoin full node, and that's somewhere in the ballpark of 100,000 computers at the moment. So in order for Bitcoin to be stopped by governments or shut down, they would have to turn off basically the entire Internet in the entire world and keep it turned off, and that's not a very feasible task at the moment. So basically, it's uncensorable, unstoppable money that everybody on the planet gets to use.

WOODS: I've done a number of episodes on Bitcoin in the past, so I'm going to, on our show notes page – which, for this episode, is TomWoods.com/1032 – I will link to those that deal with, let's say, common objections, just so we don't have to repeat ourselves. I want to get the most I can out of my conversation with you.

Now, recently, people have gotten super interested in Bitcoin just in the past few months, and really in large part in the past month because the rise in the value of Bitcoin in terms of dollars has been unbelievable. So first, you get people who are interested and say, *Whoa, I wasn't interested up to now, but this gets my attention. All the philosophical reasons why it's great are wonderful, but I see dollar signs everywhere – or Bitcoin signs everywhere – and I want to get in on this.* But then the second group of people are people who say, *Well, this thing's a bubble and idiots are jumping on board and they're going to be punished.* What do you think of these groups of people?

VER: I heard the people calling Bitcoin idiotic and the people using Bitcoin idiots, I've heard their arguments since Bitcoin was less than a dollar, and I've heard it over and over and over again. And here we are at \$7,000-something for Bitcoin, and they're going to continue to be wrong.

All you have to do is think about it. The reason anything has a price in the market is because – if it's useful and it's scarce, it'll have a price. And Bitcoin is limited by the laws of mathematics to 21 million Bitcoins and it's incredibly useful, because you can send and receive money with anyone anywhere in the world without needing permission, and you can do it basically for free. That's a really, really, really useful thing. So if something's really, really useful, people are going to start to use it. And if that supply is limited, the price in terms of dollars is going to have to continue to go up.

And Bitcoin has a lot of competition now. There's 1,001 different alt-coins, but as a whole, the crypto coin ecosystem, of course it's going to go up. It's one of the most useful things that's ever been invented by humans, so more and more people are going to start to use it. More and more businesses, more and more everything. So if that

continues to happen, the market cap of the crypto coin ecosystem as a whole, of course it's going to go up.

And it's just getting started. I remember when Bitcoin hit \$30 for the first time, and I had been telling my friends and family about it from the time it was \$1. They said, *Oh, it's \$30 now. It's too late. I should have bought it back when it was \$1.* And people are feeling the same way now that it's \$7,000. But no, Bitcoin really could potentially be hundreds of thousands of dollars for a single Bitcoin.

And I should clarify a little bit without getting too deep into Bitcoin politics at this point, but when I'm saying "Bitcoin" at this point, for the most part I'm referring to a version of Bitcoin called Bitcoin Cash, which has preserved the original economic formula of Bitcoin that led Bitcoin from being nothing to this worldwide phenomenon that it is today.

WOODS: You use this expression "crypto coin ecosystem" I guess to refer to the array of cryptocurrencies that exist. And I guess that leads to my next question. You've been associated, at least in my mind, with Bitcoin in particular. But do you have any involvement or ownership of or in other cryptocurrencies, and do you see any pluses and minuses with them?

VER: So I used to only own Bitcoin, and then, believe it or not, a group of people managed to get involved in Bitcoin and they managed to gain control of some of the most popular Bitcoin platforms, and they started engaging in literally a massive censorship campaign where you couldn't post anything that was in opposition to their roadmap or your post would literally be deleted and your account would be banned. And the really stunning part about it was that these people openly say that they want Bitcoin to have high fees and they want Bitcoin transactions to be unreliable because the blocks on Bitcoin are full.

And people like myself and a bunch of other libertarians and free-speech advocates, we said, in free and open and vigorous debate, the best ideas will win out in the end. So this other side resorted to censorship, and we said that Bitcoin should have low fees and reliable transactions and even if it takes us slightly more computer to run a full node, that's just fine. And Bitcoin is the only crypto coin ever in the entire history of this entire thing to now have full blocks, and that's caused the fees to be incredibly high and the transactions to be unreliable.

So in opposition of that, Bitcoin forked into two different versions of Bitcoin back on August 1st, so there's Bitcoin SegWit and Bitcoin Cash. Bitcoin Cash doesn't have full blocks, which means the transactions are less than a penny each and they're always confirmed in the next block and works the exact same way Bitcoin did for the first seven or eight years of its existence, and that's the Bitcoin that I'm the most bullish on at this point, but we'll see what happens.

But there's 1,001 other different ones, and when I became worried about the scaling issue and these people engaging in all sorts of censorship about even the discussion of Bitcoin, I diversified into a number of crypto coins. And it would be foolish to put all your eggs into one basket. You wouldn't buy only IBM stock and not own any other stocks at all. It would be foolish to only own Bitcoin Cash and not any of these other

ones, so I recommend holding a basket of a number of other cryptocurrencies if you want to speculate on cryptocurrencies, which I think it would be foolish not to speculate on cryptocurrencies at this point.

WOODS: Let me play the devil's advocate here. If one of the advantages to Bitcoin is its decentralized nature, how did we ever get to a point that there could be a "these people" who are trying to put their imprint on Bitcoin?

VER: Well, they managed to gain control of Bitcoin.org, BitcoinTalk.org, and r/Bitcoin, which are three of the biggest channels for disseminating information about Bitcoin. And through their censorship campaign, they won't allow dissenting opinions to be posted. And in their point of view, they seem to think that everybody needs to run a full node on their computer, but the reality of the matter is that not everybody needs to run a full node. In fact, the vast, vast majority of people won't be running full nodes. They'll just be using Bitcoin from their cell phone or even on their computer without a full node.

And what gives Bitcoin its censorship resistance isn't the percentage of people running full nodes; it's the absolute number of full nodes. We have 100,000 full nodes around the world, but it's more than enough for Bitcoin to be unstoppable. But for some strange reason, these people seem to think that 100% of people should be running full nodes for Bitcoin, but that doesn't do anything and it isn't practical, and what they've basically done is they've stagnated Bitcoin's adoption. Like it's amazing that it's \$7,000 at the moment, but to be honest, I think it already could have been \$70,000 at the moment if the adoption rate hadn't been curtailed by this insane, full-block, high-fee, unreliable transaction policy that they've essentially created within Bitcoin.

And so that's why myself and a number of others are much more bullish on Bitcoin Cash at this point, which has the exact same economic formula that led to Bitcoin's success in the first place, whereas Bitcoin SegWit has a formula that hinders economic adoption and user adoption.

WOODS: When you and I are finished today, would you be able to send me a link to something you or a friend of yours has written on this particular controversy that I can post?

VER: Absolutely. For those that can't wait, it's published over on Bitcoin.com right now and I'll send you the exact link for your show notes.

WOODS: Okay, okay, I would appreciate that. Let me jump over to something else that's been on my mind for a while and I've been curious about your opinion, and that is the IRS rules about Bitcoin, because they view Bitcoin apparently not as currency but as property. They want to tax — So in other words, if I've got some Bitcoin and I bought it years ago and now it's worth much, much more so I've enjoyed a windfall, they want to tax that in a way they wouldn't tax a money. And so this should — it seems to me, if they're going to enforce it consistently — be a major stumbling block for the adoption of Bitcoin. Why is that not a major stumbling block?

VER: Well, the politicians and the IRS, whoever, can get together and write whatever words they want on a piece of paper and call it a law, but at the end of the day, these laws don't affect the way in which Bitcoin works itself. And one of the IRS's favorite terms is "voluntary compliance." And with your traditional bank account, if you don't voluntarily comply, they can go in and seize it right away, whereas with your Bitcoin account, they don't have the ability to seize it. So at the end of the day, people are going to decide what they do with their own Bitcoins. I'm not even a U.S. citizen at this point, so it doesn't affect me as directly as a lot of your listeners. But at the end of the day, look at your own heart and decide what you want to do and realize that Bitcoin empowers you to actually have the ability to do what you want to do with your own money, and that's a very, very liberating, wonderful feeling and a great tool for human freedom.

WOODS: Before I ask you more about Bitcoin, do you mind if I ask the personal question of why you renounced your U.S. citizenship?

VER: So the main reason is I'm not interested in supporting the United States' empire and their war machine dropping bombs on people all over the world and killing people. I want absolutely nothing to do with that. Not having to worry about the IRS regulations in regards to Bitcoin is more of a certain added bonus. But I haven't lived in the U.S. for over a decade now, and I have no intention of ever living in the U.S. ever again. And for any American that's gone overseas or lived overseas, you'll know if you try and open a bank account, they basically don't want any American customers at all and they'll basically refuse to open a bank account for you, whereas now with my new citizenship, pretty much anywhere I go in the world – not that I need banks very much anymore, but banks are certainly willing to open bank accounts at this point.

WOODS: All right, I want to talk about the recent spike in Bitcoin, but before we do that, a word from our sponsor.

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All right, a lot of eyes are on Bitcoin now, again, simply for the mundane reason that it's at, I don't know, something like \$7,200 or \$7,300 as we are talking. Now, you're arguing that it could have gone much higher than it's reached now, but in the past month, it's had growth, just spectacular growth. And I'm just curious to know how you account for that and why it would be so sudden.

VER: In percentage terms, it's not the most sudden growth. I guess one of the authors that really influenced me a lot when I was younger is Frederic Bastiat and his reference to what's seen and unseen. And what we're seeing right now is this major wave of adoption, but what's not seen is all of the adoption that would have taken place had the Bitcoin network not become congested and not started having high fees and full blocks, and we would have had even more adoption otherwise.

But I remember when I was in 2011, Bitcoin in the course of maybe 10 days went from about \$2 to \$30. And so that's, what? A 15-times increase. So in order for Bitcoin to have done that in the same 10 days, it would have to be at, what? \$45,000 or something at the moment, if my early morning math is correct. So percentage-wise, it's not that big of a gain.

But I think a lot of people see it as an asset. *Oh, it's going up? I'd better buy some too.* And I can't count how many people, friends of mine from the past that I told all about Bitcoin in 2011, and now they message me, *Oh, I wish I had listened to you in 2011.* But at the end of the day, it's not too late. Buy a basket of cryptocurrencies.

A couple hundred years ago, if you said we should have a separation of church and state, you would sound like a heretic and they might have burned you at the stake for saying such a thing. Before the invention of Bitcoin, if you had said that we should have a separation of money and state, you would sound like some crazy person. But we're witnessing this starting to happen right before our eyes with the invention of Bitcoin. Suddenly, governments all around the world are losing control of the ability to create and print and control the flow of money all over the world. And if you're an advocate of free markets and human freedom, that's a wondrously exciting thing to have happening.

And one of the other fun things about Bitcoin, too, is it turns even non-libertarians into libertarians. So I have a friend of mine in Tokyo who certainly is not a libertarian. He loves the war on drugs, he loves government, he thinks government is just wonderful. But he saw Bitcoin going up and up and up and decided that he should invest in some. So I showed him out to buy some Bitcoin, and then I didn't see him for a month or two and the price of Bitcoin, I don't know, went up maybe five times over the couple of months there.

And the next time I ran into him in person, he was in a panic and he came up to me. He goes, "Roger, I need your help." And I'm, "Okay, what's wrong? What can I help you with?" And remember, this guy loves government, loves taxes, loves everything, but the price of Bitcoin had gone up maybe 5 or 10 times. And he said, "Roger, I need you to show me how to hide my Bitcoins so I don't have to pay taxes on them." And I thought that was a great example of how it turns even non-libertarians into libertarians when suddenly they have this incredibly powerful tool to have complete control of their own money.

WOODS: Yeah.

VER: And I'm still laughing about it to this day.

WOODS: Yeah, how about that? Now, again, and I'm sorry to keep throwing questions that you've probably dealt with a million times. I like to be a little more creative. But I'm curious about your answers to some of these. A common thing that's said is that the reason that people would say that Bitcoin is in a bubble is that people are buying it for speculation only because they see that it rises. Yeah, it falls back, but it always rises more than it fell, and so people are buying it for speculation. They're not buying it because they say, *I'd like to go buy a loaf of bread with Bitcoin*, and that these are the ingredients of a bubble. So how do you answer that particular claim?

VER: So I think you're exactly right. So Bitcoin SegWit now has — the fees are \$5 or \$10 per transaction and it's incredibly unreliable. And the people that have managed to get control of that chain for the most part say that that's a good thing, that people shouldn't actually use Bitcoin in commerce; they should just use it as a store of value and nothing else. But that's the very definition of a bubble there. So whereas with

Bitcoin Cash, the people that are fans of Bitcoin Cash, users of Bitcoin Cash, we want to see Bitcoin Cash just plain become cash for the entire world in which everybody is using it for every economic transaction they do. And if that's the case, it can also be used as a store of value.

And from my understanding of economics – and I'll defer to you. I would love to hear your opinion on this. But I think that a currency can't become used as a store of value unless it's used a medium of exchange first, and if it's not used as a medium of exchange, it won't be used as a store of value. So it has to be both of those things or it will be neither in my view. Do you have any thoughts on that, Tom?

WOODS: Well, I suppose some people could use something like diamonds as a store of value without ever using them as currency, but I would say one of the major reasons something does become a store of value is its medium-of-exchange functions. So yes, you definitely would want to see that. And frankly, I like using Bitcoin as a medium of exchange. I enjoy doing it, first of all because – maybe this will wear off someday, but I don't know, I get a certain ideological kick out of doing it, first of all. I just like doing it. But secondly, right, it's convenient. It's fast. It's as cheap as you could possibly expect. These are all great things. And I also feel like I'm on the cusp of something – I'm part of something great. So it's kind of exciting to use Bitcoin. I don't – I mean, I do sit on a lot of it, but I also do use it.

VER: Yeah, I share your excitement. And a lot of times I hear people say, "Why would I spend my Bitcoin if the price is going to go up?" But I think you should spend your Bitcoin and use the dollars that you would have used otherwise to buy more Bitcoin, and that just puts more and more capital into the Bitcoin ecosystem that is floating around and makes it a more and more powerful tool for liberating every human being on the planet.

WOODS: All right, now let me ask you a key thing, which is: in this conversation even, I think probably without realizing it, you have several times gotten into topics that seem very technical, and are probably quite elementary at your level, but seem rather technical to – a lot of people don't even know what you mean by full blocks, for example. So what can you say to people who feel intimidated by cryptocurrencies who feel like I'm not a techie, I don't know any of this lingo, maybe this is not a safe thing for me to be in?

VER: Yeah, I think the best advice I can give to anybody is to try using it. If I sat here trying to explain how email worked and told you about SMTP protocol and all this sort of thing, you'd think, *Oh my God, how can I ever figure out how to use email? This is way too complicated.* Whereas once you've actually used email, it's not very hard at all. And it's the same thing with Bitcoin. Once you've used it, it's not hard at all.

So if you haven't used it, go and get a Bitcoin wallet. You can get some free Bitcoin Cash. There's a number of Bitcoin Cash faucets that'll give you may a dime worth of Bitcoin Cash because the transaction fees are low enough where you can still do that, which is how most people got their first Bitcoin in the early days. They got it for free. You could get 10 cents or 5 cents worth of Bitcoin for free. Whereas now on the SegWit Bitcoin network, the blocks are too full, which again is a technical term, but basically it means the fees are now \$10 per transaction, which is a huge, huge, huge

problem. Whereas on Bitcoin Cash, they're less than a penny each, so with fees less than a penny each, you can still give away Bitcoin to a million of your closest friends and it's still not going to cost all that much money to do so.

So anyhow, my advice is, if it sounds intimidating and it sounds technical, go and try it. Use it. Imagine if you'd never used email before and someone just described it. It would sound hard. But once you've used it, it's easy. Bitcoin is even easier to use than email. That's how easy I think it is.

WOODS: I hear a lot of people saying cryptocurrencies are very interesting, but what really intrigues them is the blockchain idea itself. What do they mean by that? How can we conceive of the blockchain apart from cryptocurrencies?

VER: So I don't really share that point of view. The Bitcoin blockchain was the first blockchain in the world, and what they mean by blockchain when they say that, they mean this worldwide distributed ledger that's on everybody's computer that's running a copy of the Bitcoin full node software. And so with a normal database, it's on one computer and maybe a couple backups here and there, whereas with Bitcoin, it's on these hundreds of thousands of computers around the world and the entire ledger stays in synch with all the other copies around the world. And before the invention of Bitcoin, people basically thought that doing something like that was impossible, and whoever Satoshi Nakamoto was figured out a way to do that.

And it is a pretty world-changing invention, but for me, you know, my background was in studying economics and some computer science, but for me, it's the economic ramifications of using this as money that really, really excite me, because as we know, money is one half of every transaction out there. So maybe they'll figure out how to do other interesting things with this blockchain technology, but for me, money is the really, really killer app for blockchain technology.

WOODS: Now, there's a limit to how much Bitcoin there can ever be. It's something like – what is it, 21 million – I don't know how we would say this – units, something like that?

VER: Right, and each unit is divisible down to 100 million to the Bitcoin at the moment, so feel free to do the math on what big number that would be.

WOODS: Right, right. What I want to know is why would it make sense to – because I was just reading an article about this, and I'm curious about your thoughts. Why would you not issue all 21 million at once? Why would they be issued gradually and through the process of mining?

VER: So whoever the creator of Bitcoin was, he modeled it after gold. So if you look at gold, there's some limited amount of gold within the earth, but humans have to dig it out of the earth, so the gold that's released into circulation is released over time in the same way that gold is released over time. And for whatever reason – we can debate about that – but gold has come to be used as money and a store of value for thousands of years. And so he tried to make a digital version of that, so their release mechanism is as similar as he could come to as gold is but in an electronic form. And

in hindsight, it works pretty darn well. Here we are with tens of millions of Bitcoin users around the world, and people doing giant mining farms that maybe at some point will surpass the amount of capital goods invested in mining for gold. So it certainly worked in hindsight, and what a genius to — He was either incredibly lucky or an incredible genius to put all these pieces together, or maybe a bit of both, but here we are today and we all get to benefit from it.

WOODS: Is it at all disturbing to you that you have to use the expression "whoever created Bitcoin," that we don't know who the creator is or what his intentions were or anything like that? Isn't that a little bit odd?

VER: Well, I don't think it's that odd because a lot of people that have developed less revolutionary technologies or who have said less revolutionary things wound up being executed. So I think it was probably a pretty safe and smart move for him to disappear. But the really great part about it is the Bitcoin software itself is completely open source, so anybody who is a programmer can go in and read the code and see exactly how it works. And you don't have to take my word for it or anybody else's word for it. They can see right there for themselves exactly how it works.

And another great part about it too is he was nice enough to write this white paper that outlined exactly what he wanted Bitcoin to be and how it should work. It was right there in the title; it's a peer-to-peer electronic cash system, which means anybody can use it just like cash anywhere in the world peer-to-peer. And I share that vision and that's why I got involved and that's why I've been promoting it so long, and I think because of that vision, that's why it's become this worldwide phenomenon that we are today. So we don't actually have to speculate too much what Satoshi wanted. We can go and read his own words and read his own software code.

WOODS: At the risk of asking a fairly technical question, nevertheless, I want to know the answer. Can you explain for a dummy, basically, when I hear the expression "there's a hard fork coming," what does that mean?

VER: So a hard fork is just a really scary-sounding word for a software upgrade or a protocol upgrade. So they're going to update the way the Bitcoin software works and make it even better. So this big hard fork that's coming up that everyone's talking about, which a better term is a software upgrade, right now there's this worldwide ledger, the Bitcoin blockchain, and that ledger is updated to the tune of megabyte about every 10 minutes. And within that one megabyte that is updated every 10 minutes, you have room for about 2,000 people to make a Bitcoin transaction. And Bitcoin has become so popular all over the world that now more than 2,000 people want to make a Bitcoin transaction every 10 minutes, so later on this month they're going to upgrade that so that, instead of the addition to the blockchain being one megabyte every 10 minutes, it's going to be two megabytes every 10 minutes. So about twice as many people around the world will be able to use Bitcoin as they can right now.

So when you explain it that way, it doesn't sound like a scary thing at all. It's a wonderful thing. It means twice as many people will be able to use Bitcoin and Bitcoin will be much more useful because of it. So every time you hear someone mention a

hard fork, just think, *Oh, software update or software upgrade*, and then it's not nearly as scare and then you can understand what's going on.

WOODS: Suppose now somebody's intrigued and people want to know more or they'll say, *You know, I'm willing to throw \$X into this and let the chips fall where they may*. What would you say step one is for them?

VER: Well, I'm a little bit biased as the CEO of Bitcoin.com, but I do have to recommend that they go to Bitcoin.com to get started. You can get a free Bitcoin wallet. There's a bunch of different choices. You can buy \$10 or \$20 worth of Bitcoin with a credit card and get it instantly right there to get started, and if you want to buy more, we have links to all these different exchanges around the world where, if you wanted to take a bigger position, these exchanges can help you with that. There's all sorts of information. All the latest news is there. There's a forum where people are discussing all sorts of things, and you can ask questions of those people. So it's really a fantastic place to get more information about Bitcoin. And we have a team of over 60 people, and I think just about all of them are pretty hardcore libertarians working on that website to make it even more useful for people that want to learn more about Bitcoin.

WOODS: Great, all right, so Bitcoin.com is where you should go. We're going to put that article about – this serves me right. I had some inkling that there was some dirty work afoot to some degree in the Bitcoin world, and now I'm interested to learn more. It serves me right for not keeping up on this stuff. But we'll have some information on that at TomWoods.com/1032, where of course I will also be linking to Bitcoin.com. And Roger is there – do you have a personal site you want to also throw in here?

VER: No, Bitcoin.com is where I spend all my time, all day, every day, so that's the best place to learn about it.

WOODS: All right, then that is it. Bitcoin.com it is. All right, well, thanks for your time, especially since I know you have jetlag and barely know where you are at this point, and here you are jumping on here and having an intelligent conversation. Congratulations. You're a better man than I. I appreciate your time.

VER: Thank you so much, Tom, and keep up the great work.