Read Write Own: A New Era of the Internet with Chris Dixon

(0:05 - 0:15)

I got into the Internet for its open, democratic, kind of anyone could go and build a website. I think that's a serious risk at this point. I think blockchains are the only kind of credible way to turn that.

(0:15 - 0:20)

I go through that in detail in the book. That's what the book's about. That is what kind of motivates me at this point.

(0:25 - 0:40)

Welcome to the Web3 with A16Z Crypto podcast. I'm Robert Hackett, an editor here at A16Z Crypto. And I'm here with Chris Dixon, founding partner of A16Z Crypto and author of the new book, Read Write Own, Building the Next Era of the Internet.

(0:41 - 1:06)

So I had the privilege of editing you, Chris, throughout the book writing process. And I'm thrilled now to have the opportunity to talk to you about sort of what went on behind the scenes and to talk about the big themes of the book, the challenges that you experienced, and also to branch out and talk about the industry at large, as well as what we can expect from the crypto industry in the future. Yeah.

(1:08 - 1:26)

Yeah, I see this book as a culmination of sort of my entire career. So, you know, having worked on the Internet, I started my first Internet company in 2004, so 20 years ago now. And before that, I was an engine programmer and working on the Internet, so in some way involved, not as sort of deeply involved.

(1:27 - 2:00)

And really spent, you know, I saw myself, tried to be at least sort of a student of the Internet and understanding kind of how it really works in the sense of not just how the technology works, but how it works from the perspective of economics and governance and sort of power and how you gain power on the Internet and how that power is used. And specifically what that means on the Internet is understanding networks. By the way, I'll just say I remember when you came up with the timeline.

(2:00 - 2:12)

Originally, you had a timeline, you had an outline of when you wanted to write this book. And I didn't tell you this at the time, but I was super skeptical. I did not think that you were going to hit the deadlines that you were setting for yourself.

(2:12 - 2:24)

It was very aggressive. But you cleared your calendar and you pumped out a first draft in like a matter of a couple months, which I was stunned by. In retrospect, the calendar, I agree with you, it was naive.

(2:25 - 2:50)

It only worked because one, I had a lot of help from people like you and others on the team. And then two, went back and just spent a lot more time than I expected, honestly, and had this whole like, I don't know if I could get into it, but like basically got on this schedule of like, you know, work getting up really early. For long periods of time and working, you know, for four hour chunks every morning and just, you know, a whole bunch of other kinds of things to get it done.

(2:51 - 3:11)

This book is the best possible, I think, or very close to it, condensation of what I've learned over 20 years, right? So you take all that 20 years and all that kind of statement, all that stuff. And like all those meetings and the thousands of, I can't even God, how many thousands of meetings and this and that and all the other stuff. And of course, there's lots of other details and everything else.

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And, you know, I did actually cut out like 200 pages of material and could write another book if people are interested in another book. But, you know, not to say this, but really the key parts are distilled and then organized in a way that's hopefully meant to maximize the ability to sort of transfer that learning to somebody else. And when you realize that, you're like, Jesus, how could I be spending my time as someone interested in the world in any better way than benefiting from that knowledge from other people, right? And so that sort of motivated me to, you know, I'm sort of like, wow, this is just, I still think books to me, you know, as much as I'm interested in technology and the internet and everything else, I think my books are still, I think, maybe the greatest technology, the idea that you can.

(3:57 - 4:07)

Wow. Coming from a tech investor. The fact that you can stare at squiggles on a page and have essentially a hallucinatory experience.

(4:08 - 4:28)

So the fact that you can do all that, that you can commune with people that have been dead for a thousand years, you know, in a very intimate way and like get into their head and I don't know. So it's interesting also, by the way, as a side note, the books have been completely, almost completely unaffected by the internet and the book industry. For better and for worse.

(4:28 - 4:33)

Yeah. Yeah. I mean, I would say also that it's a little less, I mean, for the most part, that's good.

(4:33 - 4:55)

Like it hasn't been hurt the way that a lot of, you know, a lot of other industries have and hasn't had to go and do some kind of crazy machinations and other things. And, you know, and for the most part is a pretty healthy business. On the flip side of that, when you actually look at the book sales figures, which I hadn't really looked at until I wrote a book, it's shockingly small.

(4:55 - 5:20)

I mean, like the best selling, if you take out romance novels and things like this, like the best selling kind of nonfiction ideas book, which I'd put this in this category, I believe last year had sold like 400,000 copies, which is like a niche website or something, you know, user base. You've already kind of answered one of my big questions. I mean, I wanted to back up here and ask, like, why write a book at all? Like you're a tech guy.

(5:20 - 5:29)

Yeah, it's a good question. Now, I got this question too from a lot of my tech friends. Well, why write a book? And where I go to a traditional publisher, you know, why not just write blog posts? And look, I used to blog.

(5:29 - 5:34)

I blogged for years. I wrote many hundreds of blog posts. And I'm a big fan of that format.

(5:35 - 5:48)

So I think I do think books are special. And I would say in a couple of ways. So even though what I just said, that sort of the best selling books, you know, sort of in this style, maybe sell a few hundred thousand copies.

(5:48 - 6:14)

I think they have an ability to, for the ideas to penetrate culture at large in a very powerful way that is much harder for blogs and podcasts to do. And so one way to think of a book is it's really sort of a physical delivery mechanism for what really is a set of memes that, if successful, will penetrate the culture. And take concepts like Black Swan.

(6:15 - 6:59)

Like, I think that's now, or Tipping Point or something like, these are now, I think, kind of mainstream concepts that, and I think that the number of people that know those concepts and think about them is far greater than the number of people that actually read those books end to end, right? I think that's probably true. And I think, so I think if it's sort of like, with a book, there's this thing where like maybe 1% read it all the way, if it's successful, 1% read it all the way through, you know, 5% or 10%. I'm making these numbers up, but I, I don't, because I don't think anyone has the actual data, but 5% to 10% maybe read the intro, skim around, and then 90% or maybe 95% or 98% who maybe understand the ideas of it didn't actually read the book.

(6:59 - 7:19)

Maybe they bought it, they felt compelled to or something, but they didn't read it. And so books do have this ability to, for a variety of reasons, I think partly historical, cultural, you know, I don't know, there's a bunch of reasons, have this ability to penetrate more broadly, number one. So it's sort of the breadth, I would say.

(7:19 - 7:33)

And then there's depth, which is, you know, you meet people who, and I can say this for myself, that where a book is really, you know, I don't know if you saw Spider-Verse 2, the new Spider-Verse. I loved the first one. I have yet to see the second.

(7:33 - 7:35)

I think they're both great. They're like the best superhero movies. Agree.

(7:36 - 7:51)

The Spider-Verse 2 I think was good, but there was this concept of like canon event. So canon event with these moments in people's lives that no matter how many times the multiverse forked, those were like, yeah, they couldn't change. So like Spider-Man getting bitten by a spider, I think was a canon event or whatever.

(7:52 - 8:14)

And so it's kind of this cool, I think it then became like a meme on TikTok of like, what

were your canon events? You know, the things that can't fork in the multiverse, because, you know, it's like, because then they wouldn't be you and that's part of your essential nature. And so I think books have a way to create canon events in the sense of like, you hear people say, and I've had this experience where like this book really changed the way I think about something. This book changed my career.

(8:14 - 8:30)

This book changed my life even. You know, and for, I don't know, it's not that, you know, it's weird because it's not like something that happens to be written on the internet couldn't do that. And I have heard people like when I used to blog, people like say like certain blog posts are really important to them.

(8:32 - 8:59)

But again, it goes to this kind of quality of, I think it's something about the gravitas of a book, the length of a book, the fact that it's sort of the right length to really kind of fully present a worldview, right? Because you're like a blog post, you can present an idea, right? A book, you can present a worldview. Like this book is a worldview. Like I'm not, I'm sure a lot of people will disagree with it, but it's, it's a worldview formed over 20 years.

(8:59 - 9:08)

That's a self-consistent, I'm sure it's a self-consistent worldview. Like it's a fully worked out system. It's a fully worked out system that's consistent with the facts in the world and everything else.

(9:09 - 9:26)

And so if you think about it, like it's a full kind of theory. I think it's a theory that a lot of people will find novel because it's a different way to look at things than I think that if you just sort of are a casual internet user and haven't sort of seen how the sausage is made behind the scenes. But so a book, I think a book is special in that it can present a worldview.

(9:27 - 10:05)

I think it's very hard. And by the way, I say this also, like, I think there's, you know, there's a sort of meme out there in the tech world that like, why write a book when you can write a blog post? Why write a blog post when you can write a tweet? And I generally agree with that unless I've been, you know, active on Twitter forever and blog for years and just generally felt like, Hey, why would I write a book about this topic? When this case, I really felt strongly that you cannot, this is a worldview that, that fundamental. And I've, because I've been out there for years trying to describe this worldview on

podcasts and in blog posts and explain why I'm spending all of my time working on blockchains and everything else.

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And every time I do it, I have this feeling of like, okay, I managed to transmit this piece of information, but then there were all these questions about these other things. And I finally realized the problem was that, um, you know, that, that you couldn't, you can't, you couldn't take a piece of it without the kind of whole thing, right? You just kind of needed the whole worldview. It's interesting to hear you describe it as a worldview because, you know, people might think about a book about crypto or blockchains as a tech book, as a business book, but really this book is, it's kind of a philosophy book.

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Yeah. I'd say, I mean, by the way, when I say worldview, it's not a worldview of like, you know, how to eat and live your life. And it's a worldview of the internet.

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Like it's a, it's a complete theory that's a different kind of perspective than most people I think will have of like how, of the, of the internet, which I think has now become, which I argue in the book has become in some ways, kind of this global mind, right? This, this, you know, if you sort of think of it as a mind body dualism of like, this is the digital mind, this is this global hive mind that we all kind of share and plug into. And that influences the way we think about things and ideas and our politics and our economics. And so it's a distinct worldview of the internet.

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I don't want to overstate it. It's not a like full light philosophy or something. But I do think it's a distinct worldview of that.

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And I think that could only be, sorry, I think it could only have been presented in a book form, but I finally came to the realization. So I wanted to present that worldview and, and like, and there's specific things happening in the world. So for example, there's a big policy debate about, you know, should tokens be illegal and all these other kinds of things.

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And I felt that it was important. I obviously have strong views on this. And I felt like the worldview that I have that sees a very positive vision for how blockchains and tokens and these other technologies can be used was not widely understood and not properly

represented in that discussion.

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And so I felt very strongly that I wanted to present that and I wanted to do it through a channel that, you know, would, would be accessible and potentially reach a broad sort of mainstream audience. This is very much a book written for like, someone suggested to me that, you know, you should write for quote, smart high school students. This is a book written for smart high school students.

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There's no knowledge presupposed outside of, you know, just sort of, just sort of basic common knowledge and willingness to sort of be curious and interested. And I. Right. It goes from first principles.

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You don't have to bring prior knowledge. I pretty studiously avoid technical words. I mean, I have a few, but I define them.

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It tries as much as possible to kind of present it in a narrative form that goes through the history of the internet and how these things developed and give a lot of examples. You know, there are 36 pages of end notes. Chris, I will say one of your superpowers is kind of this ability to take a deep concept, some hard idea, and to distill it into a catchy kind of sticky phrase.

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You've got so many of these that you've blogged about forever. You know, come for the tool, stay for the network. The next big thing starts out looking like a toy.

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Can't be evil. You have all these catchy phrases. And I wonder how do you, how do you, what is your process for coming up with these sorts of taglines? And how do you know when you have a winner? Yeah, so I think the tag, I think it's less the tagline.

(13:36 - 14:07)

It's more like, I think what I do, what I try to do, I think what I'm good at is, and this has just always been my skill, and there's many things I'm not good at, and there's just one thing I am good at, I think, which is taking lots of information and sort of trying to distill it into simple ideas. And it takes me a lot of time. So what I would do often is I would get

stuck, and I was writing the book, and I would spend literally like three hours sometimes exercising and other things.

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Like, how can I simplify, simplify, simplify? Like, what are the core kind of basic principles here? And then the catchy phrases are just sort of end up being, like, come for the tool, stay for the network. So that idea, I'll just explain it, is that there's a, the prize when you're building an internet service is always the network. Like, the internet is part of the piece of the book.

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The internet's a network of networks. Right? So there's sort of this base layer, physical sort of network of the internet. And then what we do on top of it is we build networks.

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And the original networks were World Wide Web and email, and then there was later on Facebook and Twitter and YouTube. These are all networks. And networks are what create value, business value, profits on the internet, because networks are very defensible.

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They have moats, as Warren Buffett would say, right? Which is that once you build a large audience, like on YouTube, it's very hard for another video site, no matter how much technology they have, and they could have the most beautiful thing in the world and fastest and everything else, it doesn't matter because the network, the audience, is somewhere else. So come for the tool, stay for the network is, I started to observe, you know, a couple of years ago, or many years ago, I guess, that so every, every entrepreneur, including me, were, you know, when you're an internet entrepreneur, you try to create a network. It's very hard to create a network because the network cut, the network effects cut both ways.

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So network effect is this idea that as a network grows, it becomes more valuable. But on the, so let's take a dating, you're building a dating network, you're building something like Tinder. When you get to the point where there's tons and tons of people on there who want to date each other, it's very, it's, then it's, you have a very defensible business.

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It's very hard for somebody to compete. But when you start it off and there's like three

people on it, no one wants to come there, right? And so there's this, there's this age old kind of dilemma among internet entrepreneurs of like, well, how do you get over that so-called bootstrap phase? My partner, Andrew Chen, wrote a book about it, The Cold Start Problem. It's like this sort of cold start problem, bootstrap problem, like people call different things.

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It's like the chicken and the egg. Yeah, it's like chicken and egg, like how do you get over that? And so, you know, what I would see is more and more people. So then, so then, so that's a network.

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And then there's also sort of what I call tools, which are, and I have a section of the book on this sort of multiplayer, single player. Networks are multiplayer, meaning like they only really matter when there's many people using that tool. Tools are generally single player.

(16:20 - 16:38)

So like, you know, a word processor or a spreadsheet or something. Yeah, you can share it with somebody, but you can get a lot of value out of it just using it by yourself. And so, so the nice thing about tools then, right, is that they, is that they, you don't have that network effect problem as an entrepreneur.

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And so like the case study is in the book is YouTube. YouTube did this strategy, come for the tool, stay for the network, which is they started off 2005, originally they were a dating site. They pivoted to being a video site.

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And they're basically, their, their pitch was they didn't have a network. They didn't have an audience. No one went to the YouTube site.

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So their pitch was, hey, and in fact, what was going on at the time was everyone had their own websites. So like I have my website, cdixon.org, and then they would have their own audience and then they would want to put a video there. So what YouTube did is they said, hey, you can come to our site, upload the video.

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It's all free. We'll subsidize it. And then you can take this little piece of HTML and embed it in your site.

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And basically they acted as a tool. You didn't need the big audience on YouTube to have that be valuable. And people started doing that and being very popular.

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They had a very nice tool. Like it was very seamless and they paid for the bandwidth. Subsidies are a huge part of how these kind of the current networks were built.

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I talked about it in the book. That's why they had to all raise billions of dollars as they were subsidizing all the early users. And so, so they built that up.

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And then at some point they had, you know, millions of websites using it. And they said, hey, by the way, whenever you put it on your site, we'll put it on our site too because you may get some more viewers. And people were like, great.

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And then at some point they had this website with tons of great videos and people were just like, hey, why am I going to Chris's site when I can just go to YouTube? Right. And that's how YouTube started. Maybe I'm interpreting this too liberally, but I actually see this book as a tool, like a come from the tool, stay for the network, where this book is the tool and the network is sort of this computing movement that's going on and recruiting new people to that idea, to that software.

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I think that's, that's one way to look at it. Yeah. I mean, the book is a standalone thing that you can read and understand.

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And I think if somebody finds it interesting, then the next thing afterwards would be to kind of join all sorts of communities that are interested in these topics. And that would be the next way to get involved. In startups and in life, timing is everything.

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Tell me about the timing of this book. Why, why this book? Why right now? Yeah, good

question. So, so I've been sort of, you know, I've been in this space for basically 10 years.

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I mean, I led our investment in Coinbase in 2013. I wasn't exclusively, I was doing other things. I had some AI investments, some, you know, drones, some other kind of random things.

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So I was doing kind of, I was doing kind of frontier investing, which means sort of just new kind of emerging areas. But then kind of, I guess, five or five years ago or so, switched to full time on blockchains and crypto. And so, and through that time has been all sorts of ups and downs, you know, sort of.

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Many cycles. You know, things that positive and negative developments. You know, we had a pretty, I would say the probably the roughest period was whatever, like sort of FTX in 2022.

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The most recent downturn. Yeah. And I think it was frustrating because there was a lot of really interesting stuff getting built.

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I talk about in the book, this distinction between the computer and the casino, I call it, which is sort of two cultures that have, have coalesced around blockchains. And the computer is what I see myself as part of, and the book is about, which is people trying to use these technologies for these productive new use cases. And the casino is people who take, I see it as they co-opt aspects of the technology and use it in ways that are really focused on gambling and speculation.

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And to me, you know, FTX was one example of that. And obviously they were worse, even worse than that. They committed fraud and it wasn't simply just that they promoted kind of gambling.

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They did more than that, but there were a lot of others who just kind of promoted speculation and that still happens today. And I, and I see it as that. I see it as a struggle

between those two movements because the, the casino stuff, I think really hurts.

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I mean, one is, I think it hurts consumers, people that, you know, obviously people like who had money at FTX and things like that who lost money. I think one of the, we can talk about this later, maybe one of the really frustrating things that's happened on the policy side is I would argue that a lot of the actions of policymakers has actually encouraged the casino and discouraged the computer. And so it was really kind of helped the bad actors and hurt the good actors.

(21:02 - 21:07)

I'll say more about that. Well, so just a simple example. So like when I talk about the book, there's something called meme coins.

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So meme coins, I like Dogecoin, and they're basically tokens that are created that have explicitly no use case. And they're kind of, to me, the emblem. I'm not like, I'm not anti Dogecoin.

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I mean, if, you know, people maybe at some point, like technology develops in unexpected ways, and maybe Dogecoin will develop in ways that are quite interesting. But this idea of generally just like a token, which has, does nothing, has no purpose, except to be traded and bet on, I'm not a fan of that concept. The, one of the, now, one of the great ironies of the current policymaker approach is that meme coins are perfectly legal.

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But if you take a meme coin and you decide to add utility to it by working on it, you then are at risk of tripping up securities laws. And so. So as long as it's completely worthless and doesn't have any.

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There's no ban on, there's nothing, speculation is not illegal. Creating tokens is not illegal. Creating tokens and then working on them and trying to make them better is what is at, and, you know, and the nuance, there's a lot of nuance there.

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But that's sort of the disputed territory. It does seem a bit backward. I mean, look,

there's a reason behind it, which is like securities laws are built to avoid asymmetric information.

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And so the, you know, Dogecoin, there's no asymmetric information. It's just. Meaning I know something about this asset that I'm going to benefit from it and.

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That's right. And so Dogecoin, there's no asymmetry. It's just, it's, everyone knows it's just a totally meaningless, useless coin.

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And it's just like, you're just betting on a number going up or down. And so there's no asymmetry. Everyone's, it's a level playing field.

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It may be a dumb playing field, but it's a level dumb playing field. The, whereas once you start having like a team behind something, building something, then that team might have asymmetric information, which is why all of the, you know, the guidance from the SEC, you know, in the sort of 2000, I think it was 2019 when the, when there was various guidance, the last time they gave guidance since then they have not given guidance. They've only done enforcement actions.

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The guidance was, you know, you need to be sufficiently decentralized, meaning it's okay to have people working on making something better. Like for example, Ethereum, there's a bunch of teams making it better, but there's not one team doing it. There's a whole bunch of teams.

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And so the information is sufficiently decentralized such that there is still a level playing field. So there are ways to build things, to have tokens where you build blockchains in a way that is decentralized such that it's not a security. It's just that sort of a very complex nuance thing.

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And it's very simple to go and create something that is unambiguously clear from that. And so like, I think we'll like, if you go to like sort of a bunch of these other websites who aren't really crypto companies, like let's say Robinhood, they have, they removed a lot of

very useful blockchain tokens, but they support Dogecoin, right? And that you'll see the way things are headed. We'll probably see a Dogecoin ETF at some point, right? Because it's legal.

(24:04 - 24:19)

Some big ideas books have this problem where they kind of just come across as scattered blog posts. But what's nice about this is it actually has a through line. Well, it's interesting too, because like, I feel like the best part in a lot of ways is the end of the book, which I struggled with.

(24:19 - 25:03)

Because the end of the book is really the kind of the payoff, because it's all the work you do before. And it's like, here's like the end, the last part, there's seven sections that are like seven really interesting, what I think are really interesting, you know, application areas of sort of how you apply blockchains to finance, to artificial intelligence, to games and kind of metaverse, to media and storytelling and a bunch of other areas. But, and as like sort of, you know, like, hey, so we think about how you write this, don't you want to have sort of the juiciest parts of the beginning? But the reality is you really need the background to kind of have the payoff, because you have to do the work and you have to understand, like, what are the alternative ways that these things could be built.

(25:04 - 25:18)

And that sort of goes through a little bit of the history and how we got there. And then I do a deep dive. People always ask, like, what problems do blockchains solve? So I kind of do a deep dive on like, why blockchains are a better way to build networks than these other methods.

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And then very specifically go through the benefits, the economic benefits, the governance benefits, the software development benefits. People use words like decentralization. I don't use that word that much.

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But I mean, but it's about decentralization. And by the way, some of this is affected by like talking to policymakers, for example. I remember one in particular I was talking to last year who said, you know, I believe much of the other stuff you're saying, Chris, but I don't think you can really have build software without a CEO.

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And I was like, well, you know, and then I started going and talking about how 95 to 99

percent of the software in the world is open source software, which has no CEO. Linux is by far the most successful operating system. And that was a really, I think, a really good conversation.

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And I think the person I was speaking to found that eye opening. I think it's surprising, for example, that most of the world doesn't know that that's how most software is built without a CEO, that the sort of collaborative bottoms up way to build software. So there's stuff about that as an example.

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I feel like the open source software movement, by the way, is such a perfect kind of like precedent for what's happening in crypto right now. Crypto isn't very much. It's very much, I think, in a lot of ways, the cultural and intellectual heir to the open source software movement.

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I mean, open source software movement continues or it's sort of a fork or parallel path. And specifically, open source software is about keeping the software layer open. Blockchains are about keeping the service layer open.

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I go through this in the book. What basically happened in the last 20 years or so, right, is that much of the software business became commoditized through open source software. So it no longer became a good business, for example, to sell web server software or operating systems because that you could get great ones for free.

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And so a lot of these companies, including Microsoft, now sort of fashion themselves as services companies. And so services. Microsoft invented the software business.

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That's right. That's right. So services are software that's live and running and has storing information and sort of instantiated and active.

(27:27 - 27:48)

And one of the ways to view blockchains is essentially it's taking a lot of the ideas of open source software and elevating it to the layer of services. So a blockchain is sort of one way to think of it as an open source service, you know. And so something like

Ethereum, right? Ethereum is this computer in the sky that anyone can access.

(27:48 - 27:53)

Nobody owns it. It's running all the time. It has its own internal economic model that keeps it running.

(27:54 - 28:06)

It keeps, you know, because to run software, you have to host software and pay for bandwidth and things. And so you need an economic model to have self-sustaining open services. And so Ethereum is this sort of, you know, self-funding.

(28:06 - 28:11)

It's not self-funding. You pay to access it. And there's some users and developers pay to access it.

(28:11 - 28:29)

And then that money gets flowed back into the hosting costs and things like that. It's very much like the mainframe computing model, time-sharing and pay-as-you-go back in the 60s. It's sort of this open source, bottoms-up collaborative model and got together with mainframes and created this new kind of open community-owned mainframe is one way to think of something like Ethereum.

(28:31 - 28:52)

And that lets you then create services on top, which inherit those properties, right? So you can create a game on top of Ethereum, which inherits it, meaning all of those properties I just described are being open and community-owned also apply to the thing created on top of Ethereum, like the game. And then that has all these downstream consequences, which go through in the book. What do you read? I read also, I read everything.

(28:53 - 29:02)

I read fiction, non-fiction. I try to read almost anything that has like a four or above on Goodreads, I'll read. A lot of it's recommendations from friends.

(29:02 - 29:11)

I always have a stack of books that I'm going to read. So it's all over. Some of it's like edification, being a person who's well-read, so I try to be broad.

(29:12 - 29:29)

And then sometimes I just go deep in certain topics. But my main theory there is, it's in contrast to social media and the internet, like sadly. Because I think a lot of social media has not, and I mean, I write about in the book, I don't think we're in a great spot on the internet today for a whole bunch of reasons.

(29:31 - 29:52)

But I think that there's a trap you can get into where you're just sort of checking Twitter and other things. And I try very hard not to do that. And I sort of think of it similar to like people who are into dieting and different food programs, so to me books are protein and social media is generally sugar.

(29:53 - 30:01)

Because I do it sometimes, it's a work thing. It is important to stay in touch with some things going on. But I think it's very, very important to have limits around that.

(30:02 - 30:18)

I think there's a thing it does to your brain where you sort of get into cycles and you need to avoid that. I found the 50 page rule on books is a great rule because it's pretty doable if you plan your day right. You know, obviously everyone's schedules are different and demands on their life are different.

(30:18 - 30:26)

So I don't want to presume everyone can do that. But like, you know, for me, I sort of make it a priority. And then like some days it feels like, oh, it's sort of a pain, but okay, but it's only 50 pages.

(30:27 - 30:39)

But then what often happens is I start and it's a good book and I'm like, okay, you know, I'm going to read more. I also have a rule, 50 pages by coincidence, 50 pages. I have to read at least 50 pages of a book before I quit the book.

(30:40 - 30:54)

That's a good rule. And I do quit books. And I think it's important to quit books because I think one of the blockers you get into in that reading is you sort of stuck on a book you don't love and don't get through it.

(30:56 - 31:03)

So anyways. You also have a habit of reading very like out of sync, out of the way that the book is telling you to read it. Yeah.

(31:05 - 31:07)

Yeah. It varies, especially with nonfiction. I'm not with fiction.

(31:08 - 31:29)

Fiction, you have to read it, I think, in order. Sometimes with nonfiction, yeah. I think, again, like if you're North Star with reading, it's just like one way to think of it, and this is kind of my model, is the North Star kind of metric, the North Star KPI is how much time do you spend reading books? Like that's what you're trying to optimize as opposed to social media, TV, whatever it might be.

(31:32 - 31:52)

And if that's what you're trying to optimize, you want to really avoid the blockers, right? The blockers of things that like you get bored and you stop reading. And so one way to do that is to just always make sure that what you're doing is interesting and that means sort of this quit a book after 50 pages is okay, and then it's okay to jump around. Like with a nonfiction book, first thing you look at the table of contents, you jump and people should do that with my book.

(31:52 - 32:05)

I hope they do. And then you jump to a few sections that look most interesting, and hopefully those are well written and you like them. And then you're sort of, oh wow, maybe I should understand this stuff before, maybe that's well written and interesting too.

(32:06 - 32:32)

And in the best case, that leads you down the path of reading the whole book, right? You mentioned Andrew Chen before in his book, The Cold Start Problem. Now I know he's talked about how he will lock his phone in a crate in like a Faraday cage or something so that he doesn't have access to it so he can concentrate. Do you do anything like that to enable to carve out that like 50 page period of your everyday? I mean, I don't do the thing where you lock your phone in the thing because I probably would just go figure out a way to get it out.

(32:33 - 32:49)

I do it, but I do definitely put down the phone. I really think it's like this trainable brain response thing, this attention span sort of thing that people have now. For me too, I have that same feeling.

(32:49 - 32:55)

You put the phone down and you have this urge to look at your phone, but it goes away. If you push it, it goes away. It's just like exercise or something.

(32:55 - 33:07)

You first sit down to, I don't know if you have this experience, you first sit down to exercise and the first 10 minutes are probably the hardest because you're like, I'm lazy and I don't feel like doing this. But then once you're into it, you're like, it often takes a life of its own. I think it's very similar to other kinds of habits.

(33:09 - 33:30)

In many ways, the initial action is the most important thing and then it becomes momentum driven after that. But I kind of think of it as the most important, I guess you sort of think of your brain as an LLM. I'm a machine learning algorithm, which we probably are.

(33:32 - 33:49)

The most important thing you can do to kind of feed that and improve it is the inputs. You should be very deliberate about the inputs. It's very hard to have bad inputs and then people try all these things.

(33:49 - 34:00)

I'm going to meditate, I'm going to do this, I'm going to do that, I'm going to unwind. But the problem is you put all these bad inputs in. You can only do so much to the machine if you've got the wrong input.

(34:01 - 34:14)

I think to me the inputs, intellectually at least, in my intellectual life, the good inputs are books and conversations with people. Those are the two things where I learn the most. I get the most sort of direct primary information.

(34:15 - 34:28)

I'm very big on primary sources, not secondary sources. I'm very skeptical of many secondary sources. I always like to go as much as I can to find the source and then sort of get a lot of inputs and primary sources and make my own determination.

(34:29 - 35:21)

I think it's true for everyone and in any kind of information intellectual profession, but particularly in investing, it's very important to, which is what I do, it's very important to develop a model of the world that is both true and hopefully differentiated. Because

that's what you're doing in investing is you're basically taking that model and applying it to financial investments and trying to find things that are undervalued or avoid things that are overvalued because the world model that most people have is off and yours is better. And so if you think about that's what you want to do, you need to sort of be very cognizant of how you're training that world model.

(35:22 - 36:11)

And the easiest thing to control are the inputs. If we're talking about high quality inputs, do you have a favorite book, a favorite author? I kind of grew up reading, I spent years and years both as a kid and then college and even after college reading kind of originally computer books like programming and then got into actually sort of via artificial intelligence, what was called artificial intelligence back then, it was very different, got into a bunch of sort of philosophy books via like Daniel Dennett and Douglas Hofstadter and a bunch of these sort of bridge writers. It's funny, Douglas Hofstadter I would probably cite as like the biggest intellectual influence on my own like upbringing.

(36:11 - 36:47)

Yeah, I mean Gertl Escherbach is just an incredible book and well it was really a book that was to me, it just opened up a door to another world which was like and to me was proper philosophy and philosophy of mind and language and I spent years reading that. I've read, I spent years reading like popular, I think I've read all the popular sort of science books. I really love like the Stephen Johnson books, the sort of early Malcolm Gladwell books and then I've read all the sort of, I don't know, physics, popular physics books which all that kind of stuff and then eventually I think after my popular science phase when I was young became history.

(36:47 - 37:48)

So the thing I always go back to is history. I read a lot, a lot of history books and all eras but I'd say my favorite era of history is probably the industrial Victorian era, you know, the, I think in a lot of ways you could argue that modern civilization was built between 1870 and 1940. If you just were in New York you go look at all the skyscrapers and, you know, most of them were built in that era and the bridges and everything else but also, you know, obviously electricity and airplanes and, you know, and cars and just sort of the whole modern world and you had this era of sort of these, you know, of like a hundred sort of Elon Musk's or something of these kinds of sort of bold entrepreneurs who would build these big physical world projects and so that's always an era I love and I've spent a lot of time reading, of course, you know, computer history, tech history.

(37:48 - 38:03)

I really like the, I think it's under, I think an underappreciated area is sort of the origins of

computing. I read an article that was published in the Atlantic Magazine a couple of years ago on that. Yeah, how Aristotle invented the computer.

(38:03 - 39:08)

So my sort of thesis was that a lot of computing came out of, that the true kind of origin of it was intellectually was logic and philosophy and a lot of it came from that. That era when you had people like Turing and Claude Shannon and John von Neumann and Kurt Gödel and like all of these other kind of thinkers and it was a very small group of people and what was really interesting to me was that what they were doing, I started off that essay with this quote from a computer scientist that was like, if you'd surveyed the world in 1905 and tried to find the most useless, unpragmatic area in the world, it would be formal logic, right? But then it turned out later on to be a lot of the things that ended up leading to the design of computers. Claude Shannon has this amazing paper where he was the first one to have the insight that you could basically do a mapping of all of formal logic and sort of Boolean logic and everything else onto circuits.

(39:08 - 39:44)

And then once you did that, he had the insight that once you could map like Andor and all these other things, which are of course what, you know, the most base level transistor circuits are, once you could do that, you could then do math and everything else. And he knew that because people like Bertrand Russell, like Russell Whitehead famously in the Principia Mathematica had written out, you know, a thousand pages of how to construct all of mathematics based on simple and or not sort of Boolean operations. So they had built all this machinery for this very esoteric scientific purpose, sorry, philosophical purpose.

(39:44 - 40:17)

But then Claude Shannon's insight was that you could take all that machinery and just kind of move it over adjacently onto electronic circuitry and have computers. Anyways, I'm going down a rabbit hole, but the point being that I just think there's a lot of really interesting history throughout that whole period and really kind of going deep. And I really like primary sources because I find that, like as an example, like people often talk about George Boole, you know, we call it Boolean because George Boole wrote this book called The Laws of Thought.

(40:17 - 40:22)

He's almost always talked about as a mathematician. If you go read the book, it's not a mathematics book, it's a philosophy book. I read the book.

(40:23 - 40:38)

It's called The Laws of Thought because he's based on it. His whole thing is talking about Aristotle and how he's extending Aristotle because Aristotle was basically the prior kind of major thing in philosophy. So I find, I just find this again and again, I like the primary sources because I just think it's very different.

(40:39 - 41:00)

I find it's a very different view of history. And again, it's sort of like if the goal is both as a human and as a professional to build your world model, you know, you should be constantly thinking about, you know, how, what those inputs are. And by the way, why history? I mean, I think one, I'm just interested in history.

(41:00 - 41:25)

I think it's important. But two, when you're, when you're working in areas that are extremely complex systems, so the internet is this, you know, 5 billion people interacting in this very complex way and there's money flowing and culture and politics and power and it's, you know, it couldn't be more complex. You can sort of try to come up with little principles and things that try to predict what will happen.

(41:26 - 41:55)

And it's like business as well, too. Like business, you know, a typical business, you're interacting in a very complex world with policy and competitors and customers and changing trends and cultures. And there are certain rules and everything else, but I've always found that the best guide is history because history is a series of examples of people interacting in very complex adaptive systems and how that played out, right? And so they give you these very interesting kind of rules of thumb.

(41:55 - 42:05)

So, like I talk about history in the book, but it's really, I'm not actually interested in history per se. I'm interested in history in as much as it helps us. I'm interested in the future.

(42:05 - 42:21)

And, and... Your friend, Sepp Kamvar, actually, he turned me on to this quote from Neil Postman. I'm going to butcher the exact wording of it, but he basically said, like, history is the best way to learn any subject, any discipline. Something like you shouldn't teach history, but everything should be taught as history or something like that.

(42:21 - 42:42)

Yeah, it's something like that, which is a great quote. And I think that's, I agree with you. And I think it's a sort of a shame too, when it's not taught that way, right? Because these

things do generally have these fantastic, you know, and very interesting story, very, and they're very human stories, right? It's like, I always find the humanity behind these, these stories interesting and all the struggles and... I want to ask about the human element.

(42:43 - 43:10)

But first, I also want to just pose something counter to sort of this idea of the Halcyon days of all these technologists and pioneers coming up with this incredible new technology. We're living through a period like that right now. And I feel like a lot of people, they kind of look at the past with these, you know, rose colored glasses and they don't see that there are weirdos, like, coming up with awesome stuff, you know, today.

(43:11 - 43:34)

Oh, I think this is, I mean, like, I think that we are probably entering... And I say weirdos with love and respect. Yeah, like, I think this is one of the, I think this is maybe the most exciting period of technology, you know, I don't know. In some ways, you could argue that the next 20 years is the culmination of all of the developments in computer, computers and computer science and everything else over the last, you know, 80 some years.

(43:36 - 44:19)

And it may all be, you know, between AI, of course, I think blockchains play a very important role, the stuff, you know, self-driving cars, virtual reality, like, all of this. And then you still have, you know, you have all these new trends, you have existing past trends that continue to play out. The internet's still early, you know, it's 30 years into what will probably be, you know, one of the most important technologies, you know, in centuries, right? And, you know, the mobile phone is still playing out, like, people are still figuring out how to use smartphones and all the different applications and, you know, SaaS and FinTech and whatever, all these different areas of, you know, databases.

(44:20 - 44:44)

And so you have sort of all of these past movements that are still have a long way to go. And then you have these really powerful new things layering on top. And so I think we're potentially entering, yeah, and look, within that there's, I talk about a distinction in the book, I call inside-out versus outside-in technology.

(44:44 - 45:06)

So inside-out technologies are technologies that kind of come from the cathedral, they come from Stanford or Microsoft or Apple, let's see, iPhone, it's, you know, Windows. I think AI is very much an inside-out technology. It's come from, you know, Google and

universities and, you know, places like OpenAI, which were spin-outs of those, you know, of incumbent technology companies and universities.

(45:07 - 45:18)

And then there's outside-in technologies and that, you know, the historical classic examples of things like Linux and open source. The World Wide Web is an outside-in technology. It's kind of this hacked together thing of, you know, open source and collaborative movement.

(45:18 - 45:36)

I think blockchains are outside-in. And so I think there's all, right, we're entering a period where there's all of these very important things happening, all these prior things happening. And then there's really, as it has happened historically, there's the kind of the inside kind of cathedral stuff happening that gets a lot of attention.

(45:37 - 45:51)

I think what gets less attention and is less understood is the outside kind of outside-in stuff and all of the kind of weird fringe things, which is, by the way, where I've spent most of my career and I think is the most interesting. I'm not saying the other stuff is invaluable. It's just not what I'm personally kind of want to work on.

(45:51 - 46:15)

So, yes, I think there are sort of Wozniaks and Linus Torvalds and Tim Berners-Lee is all over right now. I don't know. You know, it'll take a while before we can tell the whole story and understand what it all means.

(46:15 - 46:36)

But I think there's, you know, and just the scope and scale of the internet and technology has increased a hundredfold probably. The number of people working on it, the number of people, of course, using it. We're talking about these people, these geniuses who really wrenched the world into their orbit and changed the way that, you know, things work.

(46:37 - 47:02)

You know, with a book like this, it's a big ideas book and there is a tendency for big ideas books to maybe get too abstract. So you mentioned the human element, how like reading history is so poignant because you learn about these experiences of people who lived these past lives that did amazing things. How do you keep the human element in this book? Like people care about people fundamentally.

(47:03 - 47:53)

So how do you retain that to capture that sort of human interest and make it engaging? Well, I tried whenever like a lot of the structure of the book is kind of...I'm not...I try not to be overly rigid about this, but I do try very hard to sort of alternate between kind of narrative telling stories that many of which, you know, I know from having been there or been, you know, involved in the internet at the time to then sort of providing kind of more abstract lessons from those stories, right? And so I tried very hard to balance that and to really make that as relatable as possible. But look, it is an ideas book. I mean, it is fundamentally...it's not a, you know, it's not narrative fiction or something like...like it's not sort of an adventure story or something.

(47:53 - 48:19)

I mean, I think...but so it is...there are a lot of ideas in there, but there's also a lot of history, a lot of stories, you know, and a lot of specifics and... I'll tell you one thing that did it for me. Like you mentioned a few of your...the startups that you founded and your experiences with them and how that has kind of tracked the progression of the internet over time. Yeah, no, so I was the founder of two companies.

(48:19 - 48:28)

The first one was 2004. It was called Site Advisor, a security company. And the kind of there, I mean, the really, really important thing to me was that we were built on the open web.

(48:28 - 48:46)

And so we went and raided websites and tried to provide kind of security warnings for users if they were dealing with somebody who was doing phishing or spyware. But very importantly, we didn't have to ask permission to do that. We could go and sort of...the web was this open community on network and we could just build new pieces on top of it.

(48:47 - 48:58)

And that allowed us to exist. It allowed us to be part of the solution in the end to, you know, I don't know if it's solved, but it certainly has improved the security problems on the internet. Like we were part of that solution.

(48:58 - 49:21)

We ended up being acquired by McAfee and bundled into their software. It's actually a very...our software, what our software became is now a very popular, you know, big product for them. But so that was very much like in that kind of, you know, Web 2. I was

in the Web 2 era, but it was piggybacking off of this Web 2 design, these open systems like the World Wide Web.

(49:22 - 49:38)

With my second startup, it was an AI company, machine learning company called Hunch that we started in 2008 and was acquired by eBay in 2011. I think a couple of things, I think, you know, obviously, I think we were right about the long-term trend about AI. I think we were too early.

(49:39 - 49:57)

But our bigger issue was that we kind of assumed that the internet would stay open the way that it had for my prior startup. And so we had used all of this sort of data that we'd crawled and analyzed a little bit like OpenAI has done, you know, now from Twitter and other places. And those things started... It was kind of amazing.

(49:57 - 50:04)

This was 15 years before OpenAI. You were working on a... Yeah. I mean, as they say in tech, if you're early, it's the same as being wrong.

(50:05 - 50:25)

So, you know, so I'm not...it wasn't necessarily good that I was early, but it was...but we were dependent on a lot of other data sources. And that was right around when a lot of the data sources started really kind of pulling back. And so, you know, in the end, we ended up selling the company to eBay, partly because eBay had their own data and didn't need to use outside data.

(50:25 - 50:50)

You talk a lot in your early blogging about this, you know, platform risk, basically, before that became a real issue. Yeah, I've been blogging. I was...yeah, I mean, I cite myself in there once, but I had a lot more examples on my blog where I was sort of obsessed with these issues of, like, the internet becoming consolidated starting, and I started blogging about this in 2009, and I have, you know, I don't know... It's been very consistent and very prescient.

(50:50 - 51:47)

Yeah, no, I mean, it's funny, like, yeah, it's not...there's no...I could have...I didn't want to...I didn't think it would be appropriate for the reader, but, like, there was a lot of the things in the book that I write, I'd been writing literally since 2009, and I was worried... Yeah. ...that, you know, the same thing that happened with Web 2 is gonna happen with Web 3. I was thinking about this the other day, like, why did I even...like, why do I work

on the internet? Like, why is that...like, I picked the internet as my profession. Yeah, why? I was very attracted to the ideals of the internet, you know, the 90s ideals of the internet of, like, that it would be this open, democratically-owned, permissionless system, and that you would have all of these kinds of, you know, you'd have open APIs and collaborative development, and anyone in the world could put up a website and build something, you know, get distribution and get users and build a business, support themselves.

(51:49 - 52:12)

To me, that was what was special about the internet, like, and what made it different than broadcast TV or radio or other form of newspapers or other forms of media, right? It was open, it was democratic, it was...and I started worrying about that when I started blogging, like, 2009-ish. I think it got really bad. I go through this history in the book a little bit, like, 2012 or 13.

(52:13 - 52:30)

It happened to come along right when what I eventually now believe is the potential antidote to it, which is, you know, new systems build on blockchains, which is what got me interested in that. I think a lot of people think it's, like, finance. I have very little interest in finance, personally.

(52:30 - 52:42)

It's not...I do have a section on it there. I think it's an important area for blockchains, but it's one of many. And honestly, I had to kind of force myself to write it because I'm just not interested in finance.

(52:42 - 52:50)

But yet you're an investor, a venture capitalist, and finance is part of your job. Yeah. But it's sort of...you don't really do spreadsheets and venture capital or anything like that.

(52:50 - 53:15)

You just, you know...but it's finance in some sense, but not sort of, like, trading and, you know, like, interest rates and all these other...you know, the stuff on CNBC, like, it's just not...anyways. So that's how I came to it, from that kind of perspective. And that's, you know, I think it's a very...I think it's maybe, you know, like, I mean, in the bad cases, maybe over. There's five...I go through the stats in the book.

(53:15 - 53:35)

There's, like, five companies that essentially control the internet. I think it's getting worse, you know, like, Twitter now deprecates your...I'm told all the social networks are

doing this now, deprecates your posts. Do you even link out? They've now moved from this mode of optimizing, you know, how many people they have and the money, to making sure you just completely stay in their wall garden.

(53:36 - 54:05)

I mean, it's so the attract-extract cycle that you lay out in the book, which I think that that one concept, understanding that, is like seeing the code in the matrix. Yeah, there's...yeah, there's...you're referencing in this early section of the book called Corporate Networks and talking about sort of the logic of how...there's basically, I think, a very predictable kind of logic to how these centralized network services like Twitter and Facebook, how they evolve. And they start off attracting, meaning they sort of become, join us, we'll do all these wonderful things.

(54:05 - 54:22)

And then over time, the logic switches or the incentive switch. And I go through and there's really, like, this is not like some cultural thing. Like, it's literally if you actually just analyze how network effects work, the incentive switch at some point where it's more important for them to extract money from the network than it is to attract compliments to the network.

(54:23 - 54:26)

And it happens over and over. It happens over and over. It's a repeated cycle.

(54:27 - 54:33)

People keep falling for it, unfortunately. It's going to happen now, again, with AI. A new generation will fall for this again.

(54:33 - 54:40)

They'll build on top of these other platforms. And then suddenly things will switch and they'll learn the lesson the hard way. I'm hoping they'll learn the lesson the easy way.

(54:41 - 54:50)

If you can read the book, they may learn it the hard way. But, by the way, I think it's about to get much worse. AI will make it...like, I'm pro AI.

(54:50 - 54:54)

I think it's a great technology. It's very important. But it's a central...it's generally a centralizing force.

(54:54 - 55:04)

It rewards companies with lots of data and money and compute and everything else. And that will further favor it and encompass. So I think it's a situation.

(55:05 - 55:15)

So I got into the internet for its open, democratic kind of...anyone could go and build a website. I think that's a serious risk at this point. I think blockchains are the only kind of credible way to turn that.

(55:15 - 55:22)

I go through that in detail in the book. That's what the book's about. And that is what kind of motivates me at this point.

(55:22 - 55:30)

There's another group that has a similar concern as you. And they're interested in decentralization. But they are not on board with crypto or blockchains.

(55:31 - 55:46)

This is the sort of Mastodon folks? Like the Blue Sky Protocol? You know, Vitalik, he had a post...Vitalik, the creator of Ethereum. He had a post earlier this year called Make Ethereum Cypherpunk Again. And I wrote down a quote that he said.

(55:46 - 56:06)

He said, there's a large ideological rift where significant parts of the non-blockchain decentralization community sees the crypto world as a distraction and not as a kindred spirit and powerful ally. And that line really stuck out to me because it's true. And how do you bridge those two forces that should be allies, but they are fighting against one another? Yeah.

(56:06 - 56:30)

No, it's a great question. I think it's unfortunate because I think they do...like the blockchain people like me and Vitalik and the kind of protocol...I call them protocol networks in the book. The folks who were sort of pro-RSS and then there's a bunch of new things like the activity pub is a sort of social interoperability protocol.

(56:31 - 56:39)

Mastodon uses and Facebook Threads is... Yeah. Look, I love those things in theory. I've been on the internet 25 years and I've supported these protocols.

(56:39 - 57:06)

The reality is there's two protocol networks that have succeeded in the history of the email and the web. Both of them were started in the 1980s and grew in the 80s and 90s before there were actual kind of corporate networks as I call them competitors, centralized networks. There hasn't been...the closest one since then that has come to succeeding is RSS and RSS failed in the end.

(57:06 - 57:28)

It still exists but it failed to...it's a tiny fraction of the user base of things like Facebook and Twitter. The reality is we've now had 25-ish years or maybe more, 30 years of protocol networks being developed. I go through in the book, there's literally hundreds of them and none of them has succeeded.

(57:29 - 57:46)

So at some point after 30 years of failure, I would submit, you should consider maybe there's something wrong with the approach. And I think the thing wrong with the approach is I think protocol networks are great from a societal benefit point of view. What they're not great from is features and funding.

(57:46 - 57:54)

They have no way...features, they're limited. They ask you to do things like go get your own domain name. Domain names like go pay a dollar for a domain name.

(57:54 - 58:02)

That's not a mainstream consumer behavior. Consumer mainstream...I'm a developer type. I'm an internet person.

(58:03 - 58:12)

I have a domain name. Ask someone in the street in New York, they have no idea why they would ever buy one and they don't want to buy one and they don't want to pay $8 a year to use an internet service. I mean people are so accustomed to things being free.

(58:13 - 58:27)

Anything that requires stuff like that is never gonna...and then funding. Look, Google has...I think it's up to...if you count contractors, I think they have 600,000 employees. Facebook, well, I don't know what it is, 100,000, 200,000.

(58:27 - 59:01)

These are vast companies and they spend massive amounts of money on subsidizing these networks. So like all of this free stuff you do, do you know how much money it

costs to host that video of YouTube and things? They subsidize it in a way that a protocol network can never do, right? A protocol, like if you have a new video protocol to compete with YouTube, you don't have...you would need, I don't know, probably $10 billion to start just to match the subsidies. You would need $100 million a year, absolute minimum, to support a top flight development team.

(59:01 - 59:13)

Look, it's been 25...I'm all for those, these activity pubs, everything else in theory. In practice, it's been 25 years we've been trying this. I've been part of some of these and they haven't worked.

(59:14 - 59:46)

So like to me, what a blockchain is in many ways is a super evolved form of these old protocol networks where they have...I like to say blockchain networks have the societal benefits of protocol networks like HTTP and SMTP, but the competitive advantages of corporate networks like Facebook and Twitter. Blockchains have an inherent funding mechanism. They have a bunch of software features that let them compete with the kind of modern user experiences of these centralized systems.

(59:47 - 1:00:13)

So in my mind, they are further evolved, kind of more likely to lead to real competitors, but share many of the same values as other movements. I wonder what it's going to take for people to see that vision and to see the potential there. Fred Wilson, who read and reviewed your book, he had some very nice things to say about it.

(1:00:14 - 1:00:30)

He had a post recently where he said that he believes 2024, there's going to be a chat GPT moment for crypto, that there's going to be this breakthrough moment for the technology that suddenly everybody's going to realize, wow, it works. It works really well. And it's just going to flip a switch for people.

(1:00:33 - 1:00:52)

Is it going to take that? And by the way, do you think that that is going to happen in 2024? That's a pretty bold... Yeah, I don't know when it'll happen and if it'll happen that soon. I think AI, though, is a very interesting case study in that one is the first neural network paper was McCulloch and Pitts in 1943. So literally 80 years before chat GPT.

(1:00:52 - 1:01:03)

Long, long history, tons of money went into it, 80 years. I can tell you that, like I started, as I mentioned earlier, a company in 2008. There were a lot of AI companies started over

many decades.

(1:01:04 - 1:01:18)

And I think a lot of people would argue it didn't really work until 2023. Did you think you were late at the time, by the way, in 2008 when you started it? Or did you think you were earlier? It's a good question. You know, I mean, I thought I had the right timing, but I was obviously early.

(1:01:20 - 1:01:34)

But the thing people didn't know, you know, neural networks were not the most effective method in 2008. They literally, I mean, people thought they were cool in theory and the brain worked that way. But empirically, they just didn't have the best results.

(1:01:35 - 1:02:00)

Now, what's interesting about neural networks, right, is they happen to take advantage of the same hardware that video games did, GPUs. And so what ended up happening, of course, is that, you know, companies like NVIDIA investing in GPUs for the purposes of video games ended up having this sort of spillover benefit to neural networks. And then it turned out as neural networks got to some level of scale, you know, they improved very, very dramatically.

(1:02:00 - 1:02:09)

By the way, this is like the perfect encapsulation of your idea of the next big thing starts out looking like a toy. And it took 80 years. And by the way, I remember when we were at my startup, we called it machine learning.

(1:02:09 - 1:02:17)

AI was a bad word. That's what happens in the sort of the pre-Chat GPT moments of technology. You have all these debates, these kind of meaningless debates in my mind over terminology.

(1:02:18 - 1:02:26)

You see that in crypto today. People say, oh, you shouldn't call it Web3, you should call it this. I just, in the book, I just use descriptive words like blockchains, and I try to kind of sidestep the tribal battles.

(1:02:28 - 1:02:35)

In the end, I don't think it matters. It's just what matters is products and technology. Like you can have different names, you have different presentations of it, different ways of

explaining it.

(1:02:36 - 1:02:44)

What ends up mattering is the products, I think. And so I think Fred Wilson is exactly right. Like at some point, there will be a Chat GPT moment.

(1:02:44 - 1:02:51)

There will be a breakthrough. I don't know when exactly it'll be. I've learned that, I think I've been pretty good at predicting what happens on the internet.

(1:02:51 - 1:03:00)

I've been pretty bad at predicting exactly when it happens. So I try to put pretty wide error bars around my time predictions these days. So I don't know exactly when it'll happen.

(1:03:00 - 1:03:12)

That's actually an interesting point, because the timeline of a book is so, like, it's so long. It's a sluggish process. It comes out like you finished writing it months ago, but it takes a while to actually get it out in the world.

(1:03:12 - 1:03:30)

You know, how do you future proof your writing when you're writing about something so fast moving like the tech industry? Yeah, it's hard. And, you know, in the book, I think specifically, like, look, I mean, it's a balance too, because you don't want to go too, obviously, the more, in some sense, the more abstract you go, the more time proof it is. But if you go too abstract, it's hard to read.

(1:03:30 - 1:03:43)

And you want to use examples, like you want to use particular, like name particular products, for example. I, like, I've read a lot of business books. I do remember rereading Crossing the Chasm recently, which is now 30 years old.

(1:03:44 - 1:03:53)

And he talks about Palm Pilot. And, like, it really kind of hurts the book, frankly, that it's like the examples look so kind of old. Because inevitably, you know, like new startups will pop up.

(1:03:54 - 1:04:00)

Some will do better. Some good ones will go downward. And so you'll just get some of

that wrong, and that will date the book more.

(1:04:01 - 1:04:09)

And so you got to be a little careful to avoid things that are kind of timely like that. But at the same time, you need to give examples. So you can't just be too abstract.

(1:04:09 - 1:04:17)

So that's one thing. I mean, the AI stuff in particular, like when I started writing it was sort of pre-ChatGPT. Yeah, this was before ChatGPT even came out.

(1:04:17 - 1:04:37)

And I thought I may have to change more of that, but I didn't actually that much. I think, like, I was talking, like, I talk about this idea of, like, kind of needing a new covenant between creators. And so there's been, like, a long time implicit covenant, sort of economic covenant between, for example, websites that provide content and search engines that consume that content and share that content.

(1:04:37 - 1:04:50)

And there's sort of the covenant is, we'll let you use some of the content if you send traffic back. And it's possible that new AI systems will change that covenant because they won't be sending traffic back to just give the answer. So what's the new covenant? Things like that.

(1:04:50 - 1:05:14)

And so I guess, I don't know, that feels like it's, like, that was a timely thing that also, I think, will last for some period of time. I mean, at some point it'll work itself out, but I think that one probably has a longer term kind of time horizon. You've got seven applications in the back of the book for potential uses of crypto, demonstrating its potential and its utility.

(1:05:14 - 1:05:48)

If you had to pick one, what's your favorite of the bunch in there? Which one sticks out the most to you? Well, there's sort of two dimensions in that question. There's kind of what would have the greatest impact on the world. And then what do I just think is sort of cool intellectually? Because, for example, the finance section, if you could figure out a way to dramatically improve and lower payments throughout the world and lower remittance costs, that could have a massive economic impact on lots and lots of people who pay 7% now or whatever they pay to send money back home or something.

(1:05:49 - 1:06:11)

So things like that, I think. Yeah, instantly life-changing. I think if we figure out the right way to kind of let creators use NFTs in a way to sort of build direct relationship with their audience and sell them digital merchandise, I think that could have a transformative effect on how much money creators make on the internet.

(1:06:12 - 1:06:34)

So things like that. And I think just from an intellectually kind of coolness point of view, I really love this idea of what I call collaborative storytelling. Collaborative storytelling is basically the idea that you get a community of people together, they collaboratively develop kind of a universe, sort of think of Harry Potter or Marvel movies or something, but their own original universe.

(1:06:34 - 1:07:06)

And then they are rewarded for their contribution proportionate to how much they contribute through tokens. And then they then also can go out and continue to develop the world, fork the world, add new characters, evangelize the world, build all around it. And then that kind of community, you can imagine them coming together, they have some amount of token, and then that community can make money in various ways too by licensing out the IP to make movies and cartoons.

(1:07:06 - 1:07:20)

And some of that money flows back proportionately to the user. So why do I like that idea so much? It's so different from like the typical media enterprise of like, you know, have a death grip on IP and just like ride that out for decades. And what's great about this idea is it solves a number of problems.

(1:07:20 - 1:08:02)

So like one is Hollywood has a problem, which is like they just have, you know, we have this problem of all these sequels, all these superhero movies. And if you ask them why, it's because it costs, it's so expensive to market new IP, right? It costs hundreds and hundreds of millions of dollars to create some new narrative universe. Okay, on the flip side, you have all of these really active, creative, enthusiastic fan bases who want to be a bigger part, you know, who are up there saying, hey, I think Star Wars should do this, I think Marvel should do this, who want to be part of it, who write a lot of it in time, very good fan fiction, right? So you have this very active fan community, but the fan community wants to be participants, but is only, but in a lot of ways feels left out.

(1:08:02 - 1:08:11)

And of course, has no way to make money doing this. And, you know, it's sort of left on the sidelines. So what's so cool about this idea is it kind of brings these two things

together.

(1:08:11 - 1:08:56)

And so you imagine, and it takes, look at harnesses, like you think about something like I kind of talked a little bit dismissively about Dogecoin before, and then it's a meme coin, but there's also something really positive about Dogecoin, which I mentioned in the book, which is that it's the power of this community of millions of people who all feel the sense of being united around this token and who go out and evangelize it. And, you know, Bitcoin is the most extreme example of this where, you know, it's just sort of probably at this point, many tens of millions of people who are true believers, and they spend all this time blogging and writing and tweeting and going on TV and doing everything else. And so what if you took that energy and harnessed it and put it into this narrative universe? You have these people who are passionate about it, who helped create it, who fork it, but then who also evangelize it.

(1:08:56 - 1:09:01)

And that solves that marketing problem. Right. There's no Bitcoin Incorporated going out there putting up billboards.

(1:09:01 - 1:09:10)

That's right. The distributed community is all... But then it also creates like this economic model for these users, right? So these people can be anywhere in the world. They don't have to be in L.A. They don't have to know people.

(1:09:10 - 1:09:40)

It can be just the same way that Wikipedia kind of democratized the kind of the left brain. This democratizes the right brain, right? Like the creative side. And you can imagine it's applied to all sorts of other creative areas, right? And you take these folks who right now are kind of left out of the Internet economics, right? Like there isn't really a model to be a writer on the Internet outside of going to L.A. or some other hub and joining the traditional world, media world.

(1:09:40 - 1:10:00)

And so this provides kind of an Internet native way for those folks to pursue creative activities. I think generally like we are in... I read a lot about this in the book. I think we're in a lot of... I think I haven't done the word count, but I think probably creators and creativity are up at the top of the word count of the book.

(1:10:01 - 1:10:18)

A lot of my feeling is that this should be a golden era for creators. You have 5 billion

people who have smartphones and you can push a button and instantly reach those people. And people are as passionate or more passionate than ever about music and stories and everything else.

(1:10:19 - 1:10:47)

And the only reason that it is not a golden period, I believe, and I think I argue this in detail in the book, is because these 5 or 6 giant intermediaries inserted themselves in between on that relationship between the creator and the audience and took most of the economics. And if we can figure out a way to bypass those 5 or 6 people, companies, we can transform the economics. So that's really in a lot of ways the themes I write about, right? And that's one reason I like that idea.

(1:10:47 - 1:10:57)

It's a really interesting, clever way to start to do that, to sort of bypass those big platforms. And I would recommend the take rates chapter for anybody interested in understanding that idea. Yeah, the take rate is sort of the toll taken.

(1:10:58 - 1:11:21)

Literally, it's a word that means a percentage of money that flows to the network taken by the network operator. And one of the remarkable things that Facebook and Twitter and other companies have pulled off is they basically have 100%, close to 100% take rates, which is unheard of in any other area of the economy. And it, I think, has really kind of destroyed the economics of the internet for most people.

(1:11:21 - 1:11:45)

Yeah. What will make this book a success in your view? Yeah, I think the main thing I'd like to do is, well, a couple of things. I think, so one, I really want, I really hope it will be the book that people that work in this industry, a lot of people that work on blockchains and crypto have told me that, you know, they can't explain, they're very excited about it.

(1:11:45 - 1:12:09)

They know why they're excited about it, but they have trouble articulating that excitement to sort of sharing that excitement with family and friends and prospective employees. And I really wrote this book hoping to be the book that, this is the book that you can give to those people to explain to them. So it's, you know, a concise encapsulation of why I'm spending my life doing this, right? Or anyone who is.

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So I think that's sort of step one. I really hope it'll be that. The initial signs are positive.

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I'm having, you know, I don't know, it's like 30 to 40 folks in the industry read it and they seem very excited by it. And a lot of them are buying it for their company now, like in our portfolio and other places. So it's early, but hopefully that will be the case.

(1:12:26 - 1:12:50)

And then I think the next rung around that would be, you know, I sort of my mental model, like, look, for, unfortunately, crypto and blockchains have become somewhat politicized. And there is a set of people out there who, you know, who have decided that anything involving them is evil because, of course, on the other side, a set of people who love them. And there's also this weird tribalism within crypto.

(1:12:50 - 1:12:58)

Some people love only certain blockchains like Bitcoin. All right. But then I think 80% of the people of the world, I think, don't have an opinion.

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And in fact, we've had surveys and other things which kind of demonstrate that. Like they're like, yeah, I've heard about it. I don't really know.

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Right. I'd like to reach some set of those people and say, hey, this is really promising. And here's why.

(1:13:10 - 1:13:42)

And maybe, you know, you should be open minded to getting involved in some way, whether it be as a developer or, you know, entrepreneur or just simply as a user or participant in these networks. And like, so I hope that, you know, my ideal ambitious goal would be for that kind of meme to spread and for people to kind of understand what the kind of productive use cases of blockchains are and not just the speculative use cases. And for that to sort of become part of the broader cultural conversation.

(1:13:43 - 1:13:49)

Yeah. I mean, I'll say my favorite review that's come in so far has been from Kevin Kelly, the founder of Wired. Yeah.

(1:13:49 - 1:13:53)

He said, this book changed my mind. I know. And I've, you know, I've known Kevin.

(1:13:53 - 1:13:59)

I've, of course, been a huge fan of his all his life. And I mean, all of his career and read all of his books. I had the privilege of meeting him a few times.

(1:14:01 - 1:14:09)

And it was always frustrating to me because he kind of agreed with everything, but didn't agree with that. Yeah. And so, yes, for him to say that, I know he wasn't, he wouldn't have.

(1:14:09 - 1:14:14)

He would have just said, thank you for sending me the book or whatever. He wouldn't have. He would politely not said that.

(1:14:14 - 1:14:19)

So for him to say that and to let us put on the back of the book and everything, I agree with you. That was great. Yeah.

(1:14:19 - 1:14:30)

I think you get a quorum of that, of enough minds changed that really makes this book a success. If you had to write a second book, what would it be about? I have no idea. I thought the process was kind of fun.

(1:14:30 - 1:14:39)

It was painful, but fun. But to be honest, I don't know how many plans, but I did like the process. So if I had the right thing, I would do it again.

(1:14:40 - 1:15:09)

I will say when I was writing this, I was like, on the negative side, it's so frustrating how no one seems to understand this topic and I have to write this book. On the positive side, how often in your career would you ever have the opportunity where there's a major tech trend and the delta between how I see it, which I think is the correct way to see it, and the popular view of it is so great. It's such a wide delta.

(1:15:09 - 1:15:20)

In some ways, it was sort of the opportunity of a career to be able to try to close that gap. It just doesn't happen that often. With AI, look, people in AI think it's great, but the rest of the world thinks it's great.

(1:15:20 - 1:15:29)

There's some difference, I'm sure, in a lot of details and things. Generally, there's not that much of a gap. Here, the gap is so broad between the truth and the perception.

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So that was just a very rare opportunity to try to be the one who closes that gap. So it would be hard to imagine that happening again. Look, I hope the space evolves, maybe, and I could write a sequel.

(1:15:41 - 1:15:50)

More stuff happens. I don't know. I have some other ideas on software and innovation, history of software and things, but I have nothing planned or anything else.

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So that leads me to my last question for you, which is, okay, pitch yourself 15 years into the future. We've had this computing cycle has gone along, and you're thinking about a sequel to Read Write Own. What is the word that captures that next internet era after Read Write Own? If you had to pick one word.

(1:16:10 - 1:16:29)

I've always thought of it as kind of a little bit of a thesis, antithesis, synthesis. Going back to your philosophy. I mean, it's a little bit like the sort of because the Read era was the protocol network era, and it really showed the great societal benefits of that architecture.

(1:16:29 - 1:16:53)

And then the corporate era, the next era kind of broadened and democratized, went from democratizing information to democratizing publishing and really extended the kind of ease of use and features of the internet. And then the third era kind of, to me, brings kind of combines the own era, combines the best of the Read and Write. And so if you believe that, there is no... It's the end of history.

(1:16:53 - 1:17:00)

It's the end of history. But I mean, if you had to, I think the next obvious vector would be sort of this very deep immersion. I do think it will happen.

(1:17:00 - 1:17:17)

I know it's a sci-fi cliche, but it's going to happen, which is people kind of living inside of these metaverses with full, you know, three-dimensional immersion and everything else. So I don't know, the AI stuff too is very interesting. Does that lead to some other kind of

era of the internet like that too? I don't know.

(1:17:17 - 1:17:27)

Chris, thanks so much for sharing this conversation. And everybody else, this book is on sale and you can buy it at wherever you buy your books.