

# TRANSCRIPT Web 3.0 First Interview with Luke Kenneth Casson ...

 Tue, 2/9 12:15PM  31:34

## SUMMARY KEYWORDS

microsoft, people, software, mesh network, battery, company, smartphone, open source, called, world, source code, backdoor, understand, delivering, point, luke, steering, route, data, talking

## SPEAKERS

Luke, Robert

- 
-  **Robert** 00:09  
Luke, you and I touched base with one another years ago and more recently, by the grace of God, we, we have reconnected as part of the informal steering group for web 3.0. Let me just make a note to my audience that because of your bandwidth issues, we have turned off my video, because the focus is on you. So, Luke, please, let's start by telling us your name and your history from birth to today in less than three minutes.
-  **Luke** 00:39  
Okay, so my name is Luke, Kenneth Casson Leighton.
-  00:44  
I use all four names to avoid the Google search categorization. And I started out in computing, age seven, with a Commodore PET 3032. Very unusual back in 1977, for any school to have a computer. But I immediately understood it and was immediately hooked. So I then naively thought I would make lots and lots of money from- from computing, because it was the up and coming thing. So targeted rest of my career at computing. So I went to Imperial College. Things then went into your trenches, software engineer. And whilst I was at my second job, I discovered free software, this thing called samba. And was

immediately hooked on that, and so it from there, the commercialization of free software started to take off as I was discovered discovering it. And it was rather unfortunate, because I've had the good fortune to meet meet John Mad Dog Hall, for example. And he points out during the 60s and 70s, everybody did open source, nobody did proprietary programs, because everybody had to customize the software. And the era is this dark period in effect of where both the hardware and the software became things. And I was focused on doing reverse engineering to try and catch up with that and bring complete people's control back over their computing devices and their software. So that has now turned into a project, I'm now running a project called Lieber sock, which is that the the real deep dive technical rabbit hole of bringing a Libre licensed ethical system on a chip that can be used in smartphones, netbooks, Chromebooks and tablets, etc, etc. And ultimately would be basically able to piss all over Intel arm AMD and Nvidia or AMD one.



Robert 03:21

I like that. I mean, because as you're speaking about what happened to open source, I'm thinking about the fencing of the comments. You know, there's a great book by a Brit called stop faith, and it's about the fencing of the comments. And that's exactly what's happening again, in cyberspace.



03:39

And it's only now with the things like I don't know if you're aware, but super micro got delisted from the NASDAQ stock exchange, if you investigate fully that supermicro preferred server motherboards right. Being delisted from the NASDAQ stock exchange was extremely serious for them consequences for them. And the reason I did it was because they couldn't review the provenance of all of the components or the source code on on the the management chip. All right,



Robert 04:16

that's really something let me ask you this. What's the state of the open source software today?



04:27

Working commercialized, polarized, fragmented, not getting enough attention considered to be and the more that the people themselves are considered. Not to be commercially savvy. The actual people who contribute to open source and free software are some of

them have gone had to go into serious debt. Despite the fact that companies commercial companies are making a massive amount of money from their work.

 05:09

They are

 05:10

basically exploited a jet, the leader of Gen two, this was about 12 years ago. Was it 45,000 US dollars in debt? before anybody noticed he had to go and work for Microsoft, the GP the job belapur of GPG pretty good privacy clone. The open version was \$10,000 in debt before it you've already noticed. I personally have ended up in debt many times. I think it's it's a mess. And things like Patreon, etc, etc, are starting to help.

 Robert 05:55

patreon will de platform you if they get enough pressure from one of the

 05:59

house? Uh huh. Yeah. So um,

 Robert 06:03

let me ask you this, what have been some and I'm we're gonna go into the lows. I mean, one of the things I'm watching very carefully is elastic versus Amazon. And I'm watching the fencing of open source inside of proprietary systems. So before we go into the Lowe's a little bit more, what have been some of the highlights what have been some of the brilliant successes just named three or four in the past 20 years.

 06:28

But Apache Apache web server runs 50% sustained for the past 20 years has run 50% of the world's internet servers. I mean, that's phenomenal. And nobody knows it.

 Luke 06:47

sambre



06:49

was what I worked on, which was less, less well known now because of the proliferation of smartphones etc. and and things. Sambo was the bridge between the Microsoft and the Unix and Linux world that at the time that I worked on it, it broke the back of the dominance of Microsoft, to the extent where both the US Department of Justice and the European Union. It was part of the app, the work that I did was, and the rest of the team that did was it. They were quoted as part of the evidence of the US antitrust lawsuit against Microsoft and the EU. Truscott antitrust case as well. Three arms test three



R

Robert 07:43

accesses excesses



07:49

funding of BusyBox BusyBox and open WRT as a part of pretty much every single router links s TP link product in the world. And we can also have to say to mention that the Linux kernel itself is a runaway success. It is the largest software engineering project on the planet far larger than Microsoft, IBM and Google combined.



R

Robert 08:29

You know, I like that. And I have enormous respect for Torvalds. And he kind of his his his proof of the pudding in two ways. Number one, he organized a crowd sourced effort with discipline with professional discipline. And number two, when he got shares from Red Hat, he proved that it was possible to make money with open source. So I'd like that that's the direction that I want our web 3.0 endeavor to go. You know, let me on Microsoft, let me point out that solar winds got to the Microsoft source code. And in 1994, yes, really? In fact, I would say 50% of the intrusions and the problems associated with solar wind. Were actually not about solar when they were Microsoft source code intrusions. You know, piggybacking so let me let me say this, John McCarthy, the father of artificial intelligence, led a group that I was part of in the hackers conference in Silicon Valley. In 1994. We asked what's the what's the problem with Microsoft? And the problem with Microsoft was it was constantly mutating and, and concealing its application program interfaces, so that third party developers could not could not do anything without paying a toll. Do you have any thoughts on open source API's? Is there? Is there a solution here?



09:52

Right. It's very interesting. You mentioned that because I'm a cook I did the black box network. reverse engineering of Microsoft's flagship operating system, Windows NT 3.5, which became windows four and five, because the core protocols didn't change. And I don't know what to do about API's when you define an API. And one of the critical things that Microsoft did was something called DICOM distributed comm where it's self describing. Alright, so if you have a component that's 20 years old, where you've completely lost the source code, it's got an ActiveX component, you can still drop that 20 year old ActiveX component into a modern spreadsheet today. And it will still work, you will still be able to browse its capabilities and actually use it, because it has this What's it what's called self describing capability. Now, the Mozilla Foundation tried to copy DICOM as part of the what's called the xulrunner API inside Firefox. But because they missed this self describing capability, because they didn't understand its critical strategic value, they left it out. And consequently, every single upgrade to the to the xulrunner, the Firefox platform caused massive in compatibility issues with third party developers. Now, what that what that is saying, so what I'm basically pointing out is that there is a certain level of capability that you have to reach, which both Apple and Microsoft achieved, as Microsoft achieved it with DICOM. But Apple achieved it with in cocoa TP with something called Objective C, objective j and the objective languages that was inspired by Steve Jobs from his work on next. All right, Steve understood this. And he directed and specified, specified that everything had to be in this dynamic self describing capability. And that's why Apple was a runaway success. And DICOM was also why Microsoft was a runaway success. The Free Software community, by not understanding this has had to substitute brute force work and be basically a very disparate community. Because they don't have this cohesive cohesiveness. You know, that's unfortunate.



Robert 12:44

I think you've really just hit on something that's extraordinarily extremely important. And there's another side to this, which is what I have found with my very websites, which are all backed up in Iceland now. Yeah, I cannot be the platform basically anymore. Is is my brilliant webmaster had to create a sandbox, because every update to every application has unintended consequences. Yes, you, you, you, you, you, you test it first. And so I'm wondering if you have any thoughts on? Well, I want to say that I'm going to have a question for you later about on a self healing network. But let me ask you first, let me ask you first, how do you evaluate the current state of the internet in terms of data and software and hardware?



13:35

Right. In terms of data, and Network Connectivity, we're base it's an it's a dog's dinner mess. The centralization is extreme. And people eat very, very fragile. I don't know if you're aware, but, um, Russia did a test recently of cutting themselves off from the internet so that they made sure that they had their own DNS servers. Right, right. The the there are the entire internet the BGP protocol is specifically routed through some choke points inside the United States. There was one country who decided that they were going to route traffic I think it was one of the Norway Norway or something like that decided they were going to route traffic from Norway, Sweden to Europe by going the obvious direct route. Hey, they got pressurized to route it the other way around the world so that it will go through the US West Coast track center, and then routed back again, another latency on the delay for communication between Sweden, Norway, wherever it was, and Europe is shit. Sorry for me, let



Robert 15:08

me let me point out as a former spy who was also very close to Bill Binney, who was the chief technical officer at the National Security Agency, this has absolutely nothing to deal with the National Security Agency wanting to collect every bit that goes through a US router.



Luke 15:27

Yeah, so yeah.



Robert 15:31

So is there a decentralized solution? I mean, you and I have talked before you've said we should exclude we should not exclude apple and Amazon and Microsoft, we should allow for a federated system where people can share and migrate and so forth. Do you anticipate? Do you anticipate a world in which information can be both free and have integrity not be censored, not be manipulated?



16:01

Yes, that the problem is that what most people don't realize is that writing software is a massive, time consuming task. That has to be paid for. And it's Google and etc, etc. blessing have been hugely successful in monetizing the free monetarily zero cost thing, there's this phrase for it, I forget exactly what it is. But they've driven the cost of the

service to zero by through advertising. And one of the problems that we've now got if we want to provide people with ethical service, is that we are we are now competing against a expectation that that service will be entirely zero cost. They do not expect to pay money for it. They that the users want security and they want privacy. But they're not prepared to pay any money for it. Because Facebook is free. Google is free. It's free.

R

Robert 17:12

Someone smarter than me. Someone smarter than me said that when the product is free, you are the product.



17:18

Yes. Yeah, exactly. But the the other problem we've got is that little people don't care.

R

Robert 17:29

No, you're you're absolutely right. I mean, one of the biggest things that you'll you'll meet Steve Arnold, who's who's been my CTO for 20 years. He's a brilliant man. He wrote the Google trilogy. And he's now doing the same thing for Amazon. And he knows more about Amazon, Microsoft, IBM and Google than than anybody except for the top three people in each of those companies. But one of the things we've we've talked about is how do you micro cash and monetize and create ecologies or communities that understand that it's it's very important to be a dues paying member of a freedom community? Do you have a vision? Do you have a vision for web 3.0? And how you is as one of our leaders would take us?



18:15

Right? So I haven't mentioned that. I've been speaking to several of my friends and colleagues. For some time about exactly this, since about 2006 if I can paint a picture, all right. Imagine that. And this and this was, this is my friend's vision. Okay. Imagine what you have a combination of Uber, driverless cars and tricycles and bicycles mobile mesh networking, an energy company, a data analytics company, or company combined together. Okay. So through this through this vision, what you would do is you would be a delivery so oh and an Uber Eats a delivery service. Okay. So you are on your bicycle delivering pizza. Okay. On your bicycle, you have a massive battery. Okay, so I got one of the you know the batteries that you put in your, in your bicycle into the stem or thing or you put it on the back, you know? The bike you are delivering pizza to somebody who is as

audited over a wireless mesh network service. Okay, a distributor Good web 3.0 service, okay, but you are running out of battery, you've got five kilometers to go. But your battery is only lasting two kilometers. The software, again, this is a distributed sort of software installed locally on your smartphone, which is connected to this big battery. So you've got a long range, you've got like a three kilometer range of a transmitter. Okay, I'm connecting to a mesh network throughout your city. The the smartphone monitors the battery on the vehicle that you're driving, and says, You are going to run out of power in two kilometers, two kilometers time. Let me see if I can find you, somebody who delivers batteries to you. And if you divert from your route just a little bit, you can meet this person, they will swap a battery over for you. They will charge it to your blockchain accounts for the delivery of the bat, the charge battery for delivering power to you in real time. And you will then be able to carry on your journey and can continue delivering your pizza to your customer.



Luke 21:23

How does that sound? Well, it



Robert 21:25

sounds interesting, but it's not. It's not quite giving me a sense of I mean, let me throw out kind of my vision of web three. Oh, it is a mesh network that abandons the cloud. We do not put our data into the cloud, we have a network maybe with the Bluetooth 500 meter Bluetooth stuff has possibilities. Okay. We



21:50

there's also whitespace, broadband 802 point 22 whitespace, broadband, which is a three kilometer mobile range,



Robert 21:56

you're much smarter than I am, I'm very, I'm standing on the shoulders of others. But let me just say, we also we also eliminate all electromagnetic pollution, we walk away type g, we write we have, we have, everybody has their own server. And all data is encrypted at rest. And people like partnership deals so that all of my stuff is backed up on my neighbor's server, or in Iceland, or whatever. And you have a combination of all data in all languages and all mediums available to all minds all the time for micro cash, and you have sensemaking tools. And then you also are selling your mental energy, which then

builds up your micro cash bank balance, and you've got a world brain. Can you guess, your vision in those terms?



22:54

Basically, what you have described there is the underlying technology, which would be used by the scenario that I've just described.



Robert 23:07

All right, well, that's why we're talking. Right?



23:12

And what what it means what it means is that with that story, where you've tied in to overeats, which is a massive delivery thing, you've got real world practical uses for the technology that you've just described. But none of it is centralized. It's entirely mesh network, there is nobody marketing, if you need to tap to reveal your location. Because you need to tell somebody that please come and deliver a battery to me, then that is your choice to do so. You understand? It's not as if you don't you're not monitored 24 seven, by the fact that because you took a photograph, the GPS timestamp is a timestamp and location is in the photograph uploaded to Instagram for the company to data mine and sell to the highest bidder.



Robert 24:14

Oh, no. Here in the United States, we had a marvelous public education event. All of the cell phone data for everybody that went into the capital was a map was posted of everybody. You know, I mean, it was it was beautiful. Now, the other thing I don't realize is that your car is also being tracked.



24:37

And yes, it is.



Robert 24:39

Now let me ask you this question. I personally think that the Internet of Things is idiocy. I

was talking to mackell ballwin. So peer to peer, I do not want my refrigerator talking to a nuclear plant.

 24:53

Oh, most of the point you don't want somebody because the password on your IoT refrigerator. Choice admin admin, you don't want somebody hacking into it and ordering 100,000 cases of beer for you. I mean, maybe you do want 100,000 cases of beer. But, you know,

 Robert 25:10

may I venture to ask, would you say that we need to back away from this idea of connecting everything to the Internet, and focus on empowering people?

 25:25

Allow me to illustrate that by the toys that contain Wi Fi that

 25:34

people have hacked into when started talking to kids. Oh,

 Robert 25:39

yes. And the cell phone saying, send me a picture of your penis or I'll kill you.

 25:45

Yeah, etc, etc.

 Robert 25:47

Yeah. It's, it's like that. I agree with you. Do you? Do you have any thoughts on on how you would approach security in this mesh network?



25:58

A lot in the mesh network thing. I'm mandated requirements that the source code be available.



Robert 26:07

I love that that's mandatory



26:08

requirement. It's critically important people, that you're not going to get everybody updating their devices, but the entire the business model of your average smartphone company is deliberate obsolescence. Alright, because if the product is not obsolete, then they can't sell you another product. Right? Yeah. Right. And the simplest that you've seen the Dilbert cartoons on this one?



Robert 26:42

Yeah. I have. I've also seen the Dilbert cartoon where two programmers are talking to each other. And in the middle frame, they said, of course, we're never going to read an end user. And the third frame is okay, make it so it crashes on every hyphen. I love that there was an argument between a computer guy and an on an auto guy in the computer guy might even have been Bill Gates was saying to the auto executive, you know, you should build cars like computers. And he came right back. He said, If I did, they'd be crashing every minute. Let me I want to bring this I want to bring this to a close. Is there? Is there anything I have not asked? All of this is intended to introduce people to you and send them to your website. We don't want to spoon feed yet everything.



27:30

Does the there is the DSU of hardware spying backdoor coprocessors,



Robert 27:38

Intel Inside?



27:41

Yeah, yeah. You've seen the CIA inside. Like, so

R

Robert 27:46

I wrote the first warning letter to the White House in 1994. And I asked for a computational quality control center. And instead, NSA went out to all of the companies and the CEOs violated their fiduciary responsibilities. They compromise what security they had. And they gave NSA backdoors into both hardware and software, we talked consider an treasonous act on the part of those CEOs, right.



28:14

So I, so I know of a company, a third hand, I won't say who it is, who do security products, hardware security products, who was contacted by gch code or ch GC HQ. They were told we want a backdoor in your hardware product. If you don't do so, we will make it very, very difficult for you to get export licenses and they went Screw you. Right To their credit, they told GC HQ to go shove it and to to GC HQ word, they made it very difficult for that company to get export licenses.

R

Robert 28:57

Well, the other thing is one of the things that troubles me is the the Israelis in particular, are very, very good at penetrating companies. And yeah, backdoors anyway, without



29:09

social engineering,

R

Robert 29:10

as well, not just social engineering, actually having somebody employed who looks like an American looks like a brick, whatever. And they do the dirty. Well, yeah, I want to bring this to a close because my intent is always to have like a 30 minute snapshot. And we'll have we'll have conversations again as the steering because my intent is to do a round robin once a month with each member of the informal steering group and I'm going to build up the website web three dash zero point. org. So we're at the very beginning of what I think is going to be a very promising new era. Do you who has honored us with your participation in this informal steering group which is not legally or financially liable for any say or do you have any parting words for our audience on how you feel about how the

next few years You're gonna go in relation to the human mind and the world brain.



30:08

That's a very interesting question. I, I have hope, I have hope that people will be waking up. I mean, it's there is evidence that this is actually happening. Trump bless him for all it is that all the chaos disease caused has woken people people are starting to wake up. And you know, I have hope.



R

Robert 30:32

You know, I want to I want to show this book by Martin Geddes, who's also a member of our steering group, I'm buying these 10 at a time. And I wrote the foreword, and it's about evil. I want to say, Luke, it's an honor to know you.



30:47

I think that we



R

Robert 30:48

few We Happy Few we Band of Brothers. You know, unfortunately, the sisters suffer from Trump derangement syndrome. So they're not here with us today. But we'll get the back. We'll get the back. Luke, I think you're a giant. And I think we're going to have a lot of fun. Do you have a last word for the audience and then we'll close this down.



31:11

Cohen, visit my website, labor sock, labor, self.org LIBOR? sock.org. I'll



R

Robert 31:16

put that link down in the description also. God bless you sir. Enjoy the rest of the cube. Bye bye.



L

Luke 31:21

Thank you so much.

