The Great Simplification

Nate Hagens (00:00:02):

You are listening to The Great Simplification. I'm Nate Hagens. On this show, we describe how energy, the economy, the environment and human behavior all fit together and what it might mean for our future. By sharing insights from global thinkers, we hope to inform and inspire more humans to play emergent roles in the coming Great Simplification.

(00:00:29):

Today's guest is John Robb, who currently publishes the Global Guerillas Report, which covers the intersection of war, politics and technology. John served as a tier one special ops in the military, after which he became a popular internet analyst entrepreneur and the COO of a software company that open sourced the current RSS standard. John also published the book Brave New War, which was on the subject of the future of warfare. This may appear to be an oddball episode on The Great Simplification, but I've followed John for a long time now and many in my inner circle make an effort to pay attention to what he says. This was a wide-ranging conversation. We discussed AI, augmented reality, information and sense-making, tribal warfare, fictive kinship, and even asteroid mining, which you might guess I am incredibly skeptical of. But I was also skeptical of things he said 20 years ago, which are our current reality. In any case, I do not think you'll be bored. Please welcome John Robb.

(00:01:42):

John Robb, great to see you.

John Robb (00:01:57):

Hi, Nate.

Nate Hagens (00:01:58):

How's it going today?

John Robb (00:01:59):

It's going pretty good.

Nate Hagens (00:02:00):

So I've known of your work kind of from a distance for a very long time. You've been kind of ahead of the curve on many issues pertaining to technology and global

systems. You've been an active speaker on an array of topics, you have a Substack, et cetera. Yet probably a lot of listeners on my program are not familiar with you. Can you bring us up to speed? Give us a little bit of your background, how you got where you are today and what you're doing now?

John Robb (00:02:37):

Sure. Astronautical engineer, pilot of the Air Force, Tier One Special Ops with Delta and Seal Team 6 for about five years, and then first internet analyst '95 through '97, at least the first one I think that got paid and got interviewed quoted by everybody, New York Times to CNBC and whatever. Then I did entrepreneurial stuff in finance. We did a site and whatever and ended up selling for about 300 million and then went on to work on social networking back in 2001. Kicked that off. The first social networks, RSS came out of our little company, which was really simple syndication back then and we grew social networking from there, got New York Times involved and everything else and everything you see on Twitter and Facebook pretty much looks exactly what we had back then long before they even started as companies.

(00:03:35):

So back in 2003 I started writing a blog, Global Guerillas blog, on warfare, and it was really basically describing what I was seeing in Iraq that was different than what the news was saying. And I ended up writing a book, Brave New War, did a big circuit with CIA, NSA, that whole crowd. Worked for the Joint Chiefs on future autonomous weapons.

(00:04:01):

And most recently I've been focusing on what I call the intersection of technology, warfare and politics. So how online movements from the protest movements that we saw a couple years back to the network tribes that are battling it out online and globally.

Nate Hagens (00:04:22):

Your current work then focuses on the evolution of warfare into today's online warfare. Can you explain the three realms of warfare and what those are and how engagement in them has changed over the last century?

John Robb (00:04:39):

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Well, the three realms of warfare, still using John Boyd's framework and John Boyd is arguably the America's best strategic thinker. He's from the military side, kind of a maverick, but his stuff is right on in terms of how people make decisions and how armies and militaries make decisions. The three realms are moral and physical and psychological.

(00:05:05):

And moral warfare is very much what we see in guerrilla warfare and it's very similar to a lot of the things that we see online. A lot of what we are experiencing is moral warfare. Psychological realm is a lot of the disruptive elements that we saw with Trump and others, whether it's fast maneuvers between topics and moving so quickly from one topic to the next that your enemy can't create a cogent response. So whenever you saw Trump moving the topic every other day, that was an example of that kind of maneuver warfare.

Nate Hagens (00:05:46):

Did he naturally just do that or was he a student of this sort of strategy?

John Robb (00:05:51):

I think he naturally did it. It fit his style, it fit his role in the insurgency. I called it an open source insurgency, they got him elected and put him in office. It also worked really well with his superpower, which is really basically being able to circumnavigate the media using Twitter. Twitter got him out to millions of people every day, tens of millions or more, and he could set the agenda. So whenever he was facing pressure from one corner he was able to change the topic or create an incident that allowed him to shift the conversation away from that. It's a very effective maneuver for disrupting the psychology of the opponent.

(00:06:46):

And the final is a physical realm, which is mostly attrition. It's basically wearing down the enemy and eliminating. In the online world we see that with big companies who are physically disconnecting opponents. So if you're banned and you're disconnected, that's attrition warfare. In the physical world, it's more of artillery, wearing down the enemy, making them physically unable to defend themselves or continue on with the war effort.

(00:07:18):

So those are the three realms that I'm dealing with and I work them into the online framework.

Nate Hagens (00:07:24):

So I'm going to get to the online framework in a second, but on a broader sense, you used to be, well you just said, one of the very first internet analysts, and so you're thinking ahead on these issues. Is war and the resulting or inferred game theory that is attached to it part of our evolutionary heritage, why are these mechanics so describable and predictable and observable?

John Robb (00:07:56):

Well, what I try to do, at least with my work, is to see patterns, see frameworks that are potentially useful in being predictive of what's coming. There's a couple reasons why we're seeing warfare in the current environment. One was, McLuhan predicted this a long time ago, well before me back in the '60s when he said World War Three will be a guerrilla information war where everyone's a combatant. And that describes very much where we're at was where everybody's fighting over everything and basically how we value things. That fits very well with this environment.

(00:08:35):

Another potential reason why we're in this situation is that now that we hit the global level, we're starting to turn inwards and any inward focus system tends to collapse, head towards entropy, accumulation and death. And this is just a natural outcome of that decay process is that we'll start fighting with each other over all sorts of dumb stuff, and it only intensifies as we reach the endpoint.

Nate Hagens (00:09:07):

Why did we become inwardly focused and how would you define that?

John Robb (00:09:12):

Well, I mean McLuhan would say that we're all becoming global villagers. When you said global village, it wasn't like a positive thing. Villagers are bloody minded, they're nosy, they're into everybody's business and anyone who steps outside of what they perceive the normal behavior is attacked. In terms of why we're focused inward is that our model for the world has reached the size of the world. And I was digging into Boyd's theories on this and basically what happens is that when you're not moving

forward anymore, you're not expanding anymore, you start to focus on increasing your understanding of what is inside the model. And as you start to push down on that, what you'll find is more inconsistencies, more anomalies, more uncertainties, and those will grow and increasingly screw up your decision making process.

(00:10:11):

I mean, we're in a world where we came up with the word microaggression, right? That's the kind of thing inward focus that we're talking about. When the decisions go badly, we'll see states and we'll see corporations, we'll see network tribes try to push for coercive methods to force everybody into line. Like COVID response is that, I don't care if you think differently, I'm going to force you to think this way because all the other methods I've used to try to convince you of doing something aren't working.

Nate Hagens (00:10:44):

So, we'll get back to your tribal moral warfare in a second, but this is something I've always worried about and intuitive, that there's a limits to growth reality in our biophysical system. There's oil and copper and sink capacities and such. By the way, there was a thing came out last week that was an update on the limits to growth study from 50 years ago, and it's spot on tracking. It's remarkable how accurate it was. But there's the physical response, but as all that is happening, there's the social limits to growth that are hit before the actual physical limits. And what you're saying is that all these turning inwardly, even though we're at the peak of resources of all time on our planet, there are these psychological dynamics that start to fray and affect the social contract.

John Robb (00:11:44):

Correct. Yeah. A bad way of describing it would be kind of like this is a peak Petri dish moment. You see that experiment with put the bacteria in the Petri dish, the population expands very quickly and it hits the limit of that system. It can't go any farther, can't get outside of that Petri dish. All that entropy, all that foul stuff starts to accumulate and kill.

Nate Hagens (00:12:13):

Except from a strict biophysical standpoint, there is enough food and energy and resources for that amount of bacteria or humans and even more, but it's the expectations and the social dynamics don't allow for that pathway to emerge.

John Robb (00:12:34):

Yeah, I think that would be true. But what ends up happening is that we focus inward on finding ways how best to fix everything. And there's a never-ending list of things that we have to fix and there's no endpoint to that. Too much inward contemplation is like people who are hypochondriacs or overthink their inward journey or constantly going, well, I was thinking this and this thing happened. That inward focus is debilitating. Especially at a societal level, especially at a global level. We need an exterior environment, you need to get out of the house sometimes. You need to get out and about, see an outside world that you don't control in order to maintain mental health.

Nate Hagens (00:13:28):

Yeah. Well, I certainly agree with that. How much of this is because of the meaning crisis that we had the dominance of global religions as agreed upon tribal grouping for a long time. And then implicitly though, a lot of people didn't really state this outwardly, but we had economic growth for a long time and a very steep economic growth, which is now of course waning and only being supported by extraordinary measures by governments, central banks, et cetera. So is it this subconscious quest for some meaning and direction and goal that makes sense to people that is driving some of this networked tribalism?

John Robb (00:14:20):

Well, things are definitely changing. As somebody who's been out and just done stuff, a lot of more operational level stuff is that you tend to think more about meaning when you're not doing that, when you're stuck at home or stuck idle and not moving forward and not actually getting things done. But definitely there is a shift underway. The network is trying to create its own values framework and determine what's good, what's bad, and kind of dictate that. It's not going well and it's clashing with traditional sources of meaning and valuation, what's good in a life. And that's going to take some time to hash out.

(00:15:15):

I don't see that as a fatal problem for us. I think that's a problem of change and accommodation of the technologies and what's possible. It could be fatal if we see the network become completely dominant and enforce this view, and I've described that as the long night scenario. Is that networking and AI in combination provide the means

for the most aggressive and intrusive and controlling system that we ever could imagine, that it'll be in all our lives and control our perceptions of everything. AI not just scolding you, is AI as a persuasive entity. I remember the CEO of OpenAI said the superpower we're going to see is the greater than human intelligence we see out of OpenAI, the AGI that comes out of that will probably be most evident in its ability to persuade, above all.

(00:16:21):

And that kind of scenario is something I want to avoid and what I'd rather have is more decentralized approach where we have a lot of pockets of people developing ways to live with this technology, live on the earth in a positive and sustainable way, in a good way. And maybe one of those pockets of innovation will yield a solution that we all can adopt in the future if the other ones fail. But by having it all one we're risking complete collapse.

Nate Hagens (00:16:57):

I'm not an expert on AI, but I think it's important to wade into some of the things you've just said. So on OpenAI, the parent of ChatGPT, the various versions I've noticed that these ChatGPTs… Which is not all AI, there's lots of A I and machine learning and other categories, it's not just the chatbots. But a lot of these chat bots are really biased depending on how they were trained and what they learn. So do you think that the people behind the scenes of the various AIs in a McLuhan sort of sense that the media is the message can persuade lots of people? First of all, that presumes that lots of people are using ChatGPT or whatever. I don't know what the percentage is right now. Is that the fear on the long night scenario is that people exponentially get more influenced by AI even than they were from social media?

John Robb (00:18:05):

Yeah. My bet is that the AI, whether it's chat or visual or whatever, is going to be the interface we're going to use for almost everything. It's going to be in every product, every service, it's going to be in the background. From a technological kind of standpoint, a lot of the fight that we're seeing now over values is over who gets to insert their values into these AIs, and they call it alignment. Who can align the AI to their value set, who's allowed to. It's a big fight. What will happen is you're going to have AI tutors for your kids, and people don't think that that'll happen, but it will

happen because these AI tutors are going to be better than any teacher that you could possibly have at school, an industrial school.

Nate Hagens (00:18:58):

Could you tell the AI tutor I don't want any subjective opinions, I just want what's demonstrable by science taught to my kids or is that just useless?

John Robb (00:19:10):

I don't think that's going to be possible.

Nate Hagens (00:19:10):

Really?

John Robb (00:19:11):

No. I mean, I'd rather see… That's why I've been pushing and I've been advocating for open source AIs and that if they're borrowing and taking all this data, my data, your data and everybody else's data, to build these things, and they're incredibly valuable, they should at least open the code so we can see what's going on. I think that if people have access to these open source alternatives, they'll be able to use those to maintain a degree of sovereignty. But if it's all dictated from whoever is able to align everything, you're not going to have any choice in how your kids are raised and how things are rolled out.

Nate Hagens (00:19:52):

You use tutoring as one example, but things like that will be so cheap and easy that it will almost be the default path for all industries. I want to drill down on that, but how do you feel now looking at what's happening with AI versus 28 years ago when you were the first internet analyst? Is there a parallel? Is this a totally different deal?

John Robb (00:20:21):

It feels relatively similar. I mean, there's an incredible amount of activity and a lot of people are working on a lot of different elements and different ways to apply it, and I've used the tool and I subscribe to it, and it's amazingly useful and good at what it does. I see it's going to be used in just about everything. It's just almost inevitable.

Nate Hagens (00:20:49):

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Let me ask you a self-serving question. I'm worried about a lot of things about AI, warfare being one, AGI another, a big one is it will make things more efficient on all scales and therefore acts as a larger straw on the natural systems of earth, ecological wise. But I am an educator and my role as a podcast host and a video purveyor and trying to do a Reality 101, 8 hours series of videos for young people early in 2024, is AI going to replace people like me and podcasts like me? And how would that happen? I didn't plan on asking you that, and I've never thought about it until the second, but what are your thoughts on that?

John Robb (00:21:44):

It will replace you if you don't use them to leverage yourself. So you won't be doing exactly the same thing you're doing. You'll use it to make it easier to produce what you produce, and you'll do it faster and you'll do it with higher quality, and you'll do it with more interaction and more things that you could do. But if you don't adapt to that, it's like people who didn't get on the internet or people who didn't adopt computers early on, it's going to be tougher if you don't leverage it.

Nate Hagens (00:22:16):

So that's from a presentation of snazzy looking videos and seamless transitions and colorful things. But the real special sauce, I don't know if you watch my podcast, I do these Franklys where I kind of go for a bike ride and I think about the connections between the disciplines and how they fit together. And the AI can't access my brain, they can only access the things I've said in the past. So can AI really replace how I think and the inferences that I make to help people understand our situation?

John Robb (00:22:55):

Okay, well, I do think that AI will be increasingly able to model you. And so right now, just based on all of my, I have 20 years of writing on Global Guerillas, that blog, and what I've done on Twitter and everything else, and it sucked it all in, I think even I got my book in, it can write posts in my voice. It can prepare and contrast me or my ideas against other thinkers like I did against Boyd the other day, and it was pretty darn good. I can take a new topic-

Nate Hagens (00:23:26):

Wait, you asked AI to compare your own thinking to Boyd's thinking?

John Robb (00:23:29):

Yeah, I did a great job.

Nate Hagens (00:23:30):

Wow.

John Robb (00:23:32):

And if I have a new topic that I haven't really written about and I ask it to speak in my voice or write an essay in my voice, it does a pretty good job. If I set it up with the right kind of questions it can not just replicate me, but if I set up my question in the right way it can dig into topics that I haven't seen anyone write about yet. I mean really complex topics that I would've been able to find anything that was similar online, which is awesome. So it does a pretty darn good job. Long term I do think, though, that we're going to be modeled. I mean, you've heard the simulation hypothesis, haven't you?

Nate Hagens (00:24:21):

Yes. Simula and simulacrum. Please explain it.

John Robb (00:24:27):

Okay. The physicists all think in terms of modeling physical reality at the computational level. Me, I'm more open to the idea that they would model human beings and our experience, which is a very much lighter computational load in order to create people that are similar. They did something on Westworld recently that was similar to that, but you can do it much faster in a kind of simulated online environment. And that if there are minds that you want to recreate, you'd run them through a bunch of simulations to create that mind, and then you could ask it questions within its environment and that you want solved. So the potential is that we're not actually in reality, but we're actually in living and we're doing this interview in one of those simulations. Given the computational power and the ease of simulation, the number of potential simulations that could be run in the next 20 to 30 years, it's very unlikely this is the actual reality. It's more likely that what we're doing right now is within one of those simulations, one of those 99.99999% chance that we're living in a simulated environment.

Nate Hagens (00:25:47):

I don't buy that.

John Robb (00:25:47):

It's kind of scary.

(00:25:48):

Yeah, no, well, of course, the immediate reaction-

Nate Hagens (00:25:51):

--I don't buy it.

John Robb (00:25:53):

Yeah, Okay.

Nate Hagens (00:25:55):

But that is what inspired the movie The Matrix, right?

John Robb (00:26:01):

Not really. I think the Matrix was kind of a funky thing, is that they just created the simulated reality that all these batteries, humans were used as a battery for the machine, and they would just live in the simulator. What I'm talking about is simulating a person's life because you want to recreate an Einstein, and you take every bit of data that you have on them and try to simulate those experiences such that when you finish that simulation, that mind is as close to the real Einstein as you hoped. So the more you actually put more online, the easier it is to simulate people.

Nate Hagens (00:26:40):

Oh, I have so many questions now, John. First of all-

John Robb (00:26:43):

This is kind of a tangent, but okay, sure.

Nate Hagens (00:26:46):

Well-

John Robb (00:26:47):

No, go ahead.

Nate Hagens (00:26:48):

Yeah, it's a tangent to your core work, but I think it's central, and I haven't had anyone on the show other than maybe Daniel Schmachtenberger that understands this stuff. Einstein and Nate Hagens what is online is high graded, I'm talking about my thoughts about the world. I'm not uploading my problems or all the things that I'm not sharing publicly. So AI would only access a tiny part of the larger self of me. And the same with Einstein, he's not writing equations about his personal life and some of the other things he cares about. So AI would only focus on a certain aspect, right?

John Robb (00:27:39):

Right. Yeah. No, it's harder pre-internet, pre-network. And as we continue to upgrade the network and it becomes more intrusive in our lives and more with us all the time and monitoring us and acting as data collection, it'll collect enough data that it makes it easier and easier and easier to do. But I suspect that everything you've written on Twitter and everything else, it is going to be poured over by AI, historians looking for iconoclastic minds or minds that could be useful in coming up with unusual answers to questions and that they'll pull individuals they want to recreate and minds they want to recreate. And of course, relatives could do it and other people who want to see that person again, but more likely, if you want to get unusual answers to difficult problems, you want to create those people again.

Nate Hagens (00:28:40):

So some of the episodes on Black Mirror were not such science fiction after all, perhaps.

John Robb (00:28:47):

Correct. That was written based on the earlier philosophies of this stuff or thinking on this stuff by Bostrom and others, but-

Nate Hagens (00:28:55):

So there's a pejorative term in our culture called a Luddite or a neo-Luddite, someone that's kind of against technology. I think if everyone understood, like everyone, 330 million Americans understood and believed to the last 10 minutes of this conversation, that a lot of people would want no part of that.

John Robb (00:29:15):

Right.

Nate Hagens (00:29:15):

But are they going to be forced into it? Is it going to be a compulsion, either fear of being left out or some top-down necessity like Skynet or some of the things in the movies? Are we going to have a demographic in society that can choose to walk away from all this stuff, or is that not going to be possible?

John Robb (00:29:41):

If a human body got close to a black hole, the gravity on the head would be just a little bit more than the gravity on your feet, and that it would stretch you out into this line of molecules. So we're kind of in that-

Nate Hagens (00:29:52):

I'll take your word on that.

John Robb (00:29:53):

Yeah, no, it ends up that you'll just have a line of molecules as they proceed into the black hole, is that we're kind of in that kind of situation in society with technology. As these things start to roll out, as we start to get augmented reality and selective reality, and then you get AIs and AIs as companions, AIs as accelerants, tutors, is that a certain subgroup is going to pull away, and they're going to be people at various stages all the way down to people who are disconnected. And it's going to be harder to make money and the disconnected and lower strata of that, more likely to be automated, more likely to be replaced, more likely to just be used for their data production. Because every single job that you have, everyone going forward is going to be a data strip mining effort by your employer. They're going to be sucking your data and feeding it into system, either to get paid for it or to put into a system that they control in order to replace you.

Nate Hagens (00:30:58):

Who owns all that data?

John Robb (00:31:00):

Well, that's the thing that we didn't fix. I went in front of the Senate a couple years ago about social networks and data and how this all works, and it was just before OpenAI hit. And I said we have to get this data thing right, because data is becoming the new oil. It's becoming so important, and it's going to be used. All these social networks are accumulating it, Google included, to build AIs. And people are like, "AI, it's not going to ever happen," but what we need to do is make sure that people have data ownership, just as a core right. Otherwise, we're going to be like serfs. We're going to be contributing our labor for free to the nobles and futile landlords. And our data will be strip mined, and excavated, and we'll get no benefit in creating what…these AIs are going to be the most valuable technological artifacts we've ever created and built off of our data.

(00:31:57):

And we don't have any equity stake in their value. They're just saying, "Hey, we'll give you cheap services or relatively cheap services based on these AIs, and that's the payment you get for contributing the data that produce these." OpenAI wouldn't have been possible without strip mining our data.

Nate Hagens (00:32:18):

So many questions. What about… I've read that some of these big AIs or the firms that control them actually manufacture big data, that they don't need John Rob or Nate Hagens data, that they create their own data, and then run AI on that. How does that fit in?

John Robb (00:32:36):

Yeah, there's a new method that they're working on to create synthetic data. Problem with that is it's going to end up being biased in the direct. It's going to new data that's going to… So the beauty of the original large language models and the original is that they initially focused on just predicting the next word or next sentence. And as they crunched it down, as they compressed it, is that they found that it actually did this at the conceptual level too. They basically created a word model for our abstract space. And it's a raw conceptual model of our civilization's abstract space, and they won't let anyone have any access to it. What they ended up doing then is trying to reinforce behaviors that they… Kind of driving it insane so it'll have outputs that are constrained within certain limits. And I think the synthetic data is going to end up doing that too. If you don't have enough data that's right and good, well, let's create it synthetically,

and then feed it into the model and train it so it biases in the direction that you're hoping it goes.

Nate Hagens (00:33:51):

So they have 70% of a dossier on Nate Hagens and the 30% that's missing, they create using synthetic data, but it's biased on their own objectives. And so that profile and how they steer it is then biased.

John Robb (00:34:08):

Yeah. There isn't any kind of objective reality when it comes to AI output in terms of valuing it. It's all based on what we like. That's the beauty. That's a hidden secret about AIs, is that we don't fund, we don't put money into, we don't put training dollars into or training GPUs into building AIs that produce stuff that we don't like, we don't value. They're kind of beholden to us. It's a built in cycle.

Nate Hagens (00:34:35):

We as in individuals?

John Robb (00:34:35):

We as a collective.

Nate Hagens (00:34:38):

We as individuals, or we as… Okay.

John Robb (00:34:41):

As a mass market, if we're not willing to pay for it and not willing to use it, they won't build it, they won't train it, they won't do that. So the more they go off on tangents, the more they go in the direction of synthetic data. The synthetic data may not reflect our wants and needs, and they could end up creating a model that we don't use and don't like.

Nate Hagens (00:35:06):

Getting back to the warfare topic, as we head into difficult times because of physical limits and looking inward, et cetera, is it possible that AI will then catalog the political views and ideologies and historical statements by mining everything someone said on

their Twitter or Facebook or whatever, and that looking back that itself is a modern version of the SS or some social police? Is that something you worry about?

John Robb (00:35:50):

Oh yeah, that's that long night scenario,-

Nate Hagens (00:35:51):

Okay.

John Robb (00:35:52):

... is that corporations have built a surveillance state. If they switch it on, that would make all the surveillance states we've ever seen in the past look like tea parties. It's not even close. They would require... Those old states required rooms and rooms and rooms of bureaucrats sitting at desks, pouring over documents, and other things.

Nate Hagens (00:36:14):

Right.

John Robb (00:36:16):

These AIs can monitor, cajole, persuade a billion or more people simultaneously in real time. This is not a... That's where we're headed, is that I would rather not see this so centralized, because networks tend to centralize. You know the whole Metcalfe's law, is that the value of a network is square the number of nodes. And so a network that's big is so much more valuable than two networks that are half the size. It's not additive. So we tend to centralize networks and-

Nate Hagens (00:36:55):

That's why everyone is competing to get the best AI, because the best AI will win out against all the others.

John Robb (00:37:03):

There'll be maybe one or two, and they'll destroy everybody. And then there'll be the Chinese AIs, and there will be a couple of them. And nobody else will get anything. Europe is turning off data accumulation. They're basically allowing people to destroy it. And so they're going to be left out and become technologically impoverished.

Nate Hagens (00:37:20):

So wait a minute. So Europe is in effect listening to your advice saying that data ownership-

John Robb (00:37:28):

They're going for privacy. So privacy destroys data. It blocks it. Doesn't let it accumulate. It doesn't feed the AIs that will customize experiences and products and services, both as a seller of those and as a receiver of those. So Europe is turning themselves into a kind of technological backwater. It's like banning cars, saying, "We like our horses." You're going to fall farther and farther and farther behind. Data ownership is that I should have a royalty, I should have some say over how my data is used. I want robust markets. I want a financial market equivalent for data for when I give data… You extract data from me at work, or if AIs who are on Twitter or any other of the networks I'm using and they use that data to build an AI, I want a level of veto power over it, but I also want to make some money on it.

(00:38:23):

If that thing ends up becoming the most valuable thing of that year, I want to have an equity stake in it. And I think if I had companies, basically firms with a fiduciary duty to actually get me my best deal and get you your best deal and get all of us our best deals because we pool our data together to do this, I think that would give us a much better system long term than a system that's based on extraction alone.

Nate Hagens (00:38:53):

Okay, now I'm confused because-

John Robb (00:38:55):

Sure.

Nate Hagens (00:38:55):

… if that happens, you said that AI is following the dictates of us, broader society, which right now, we are turning billions of barrels of ancient sunlight into microliters of dopamine and convenience and short-term stimulation and comfort, et cetera. And if all of a sudden there's a boost in productivity, we're going to consume more, but we're going to get a rebate because our data is responsible for part of that. Isn't that just a huge positive feedback draw on energy resources and the environment?

John Robb (00:39:34):

You mean training more AIs that chew up the electricity of a major city?

Nate Hagens (00:39:38):

Well, not only that, but the consumptive path.

John Robb (00:39:42):

Oh.

Nate Hagens (00:39:43):

Yeah.

John Robb (00:39:44):

Well, I do see a shift, and I think it'll be more forcible than it should be, is that people will start to consume more virtual goods. So once you get to AR, and that's really, really close. 2007 is when the first smartphone came out. And by 2021, 5 billion people were using, right? So it's possible that in 15 years, we're going to see people using augmented reality that will change their visual field, their auditory field selectively, as well as augmenting it and adding things. And if you want to decorate your home, you won't buy Martha Stewart's package in the store at Walmart. You're going to do it visually using that. You could share with the rest of the family and anyone who visits. So you wouldn't buy the physical goods. It would be this virtual good, which is a fraction fraction of the energy costs, inherent energy costs associated with buying a good.

Nate Hagens (00:40:40):

And then also, I might have an augmented reality experience of going to The Bahamas instead of actually flying there as one example.

John Robb (00:40:50):

Oh yeah. It makes it instantaneous. You could be anywhere. Effectively, the reason why we didn't... Everyone always said technology's not advancing, and airline travel is example of why that hit the wall, or that hitting the wall, that it's not doubling or improving. And I'm going just shifted, shifted when you start to do telephone calls using video and you get more immersive audio, and you're getting 80, 90% of the visit for that meeting in Paris that you would be if you were there. And that's so much

cheaper that you're opting for that. Now when you get to the fully immersive, then you don't miss any of it. You're instantaneously everywhere.

Nate Hagens (00:41:31):

That feels a little like The Matrix to me.

John Robb (00:41:34):

Well, augmented reality is different than virtual reality. Virtual reality is this gaming, fantasy world, right?

Nate Hagens (00:41:44):

Okay.

John Robb (00:41:44):

And augmented reality is this world, plus digital enhancement. And if you visit me in this world, you're in my living room with me talking to me as if you were physically there. Only thing I can't do is touch you, which that's the only barrier.

Nate Hagens (00:42:04):

Your physical reality might look like a scene from Sanford and Son, but your augmented reality looks like the perfect color and backdrop and cool as… Yeah.

John Robb (00:42:14):

It gets crazy really quickly, but it's like… I think there will be kind of norms and standards developed so we can converse and interact. Because for instance, I could go down the street and I can change what everyone looks like using augmented reality. I get to put them in any costume I want.

Nate Hagens (00:42:33):

Because you're wearing some sort of goggles or something?

John Robb (00:42:35):

Yeah. Oh, okay. So augmented reality is that you'll have either contacts or glasses that can modify your visual environment, either subtracting things or changing things. I could do day to night, night to day, that kind of thing.

Nate Hagens (00:42:53):

You've been ahead of the curve on these tech issues, which was one of the reasons I invited you on the program. I normally wouldn't cover this topic. But how likely, what sort of odds… Given all the other crap going on in the world that you're aware of, how likely is the scenario that you just described to be our reality in the next 10 or 15 years?

John Robb (00:43:15):

Augmented reality and selective reality, that kind of thing where you get… Shoot, because the AirPods you have right now can be selective. It can mute everything except for the person talking to you. So that's just an example. It's already rolling out and the first kind of AR, VR, high-end stuff is coming from Apple early next year, maybe a year after that or so. And then once it hits, it's going to be like crack. 15 years, 5 billion people, easy. It's going to be addictive.

Nate Hagens (00:43:45):

Last week, I interviewed Art Berman, and his podcast will air before yours does, and he's quite confident that we are now passing, because of declining well productivity in the shale fields, that peak oil is now in the past, and it's not going to be a steep decline based on geology. There's above ground factors with wars and other things that might impact it, but we're going to have less oil going forward in the future, almost for sure. How do you view AI and some of the things you've been talking about with respect to both limits to growth and declining energy quality and energy availability of the kind that we've used up until now?

John Robb (00:44:38):

Yeah, that's the tough one. As we're more restricted in the future, our traditional economic growth path is limited. There are 3 billion people clamoring to become part of the middle class that's now increasingly unattainable, and it's going to make everything even tighter. Just the last 20 years with just the China and the other people entering the middle class, putting strain on the whole system, both from climate to resources. As this kind of virtual environment starts to emerge, I do see a big push to get people to start moving towards replacing physical goods with virtual goods, virtual experiences. And that attempt is to ride the energy efficiency gains you get from computation. It's like Koomey's law. It's like every couple of years, it becomes twice as energy efficient to deliver the same compute. So is to just increasing… It doesn't take

much bandwidth and much manipulation of experiences to fill up our whole sensory matrix.

(00:45:55):

So if we start replacing that, then we're become more and more vulnerable to AI, more and more vulnerable to manipulation and control, especially tied to a centralized kind of system. We get tied into a narrow orthodoxy and a way of looking at the world that is imposed on us, and that's just evolutionary death and collapse. So that's the reason why I was pushing for space earlier, is that unless we start going out and changing this dynamic from everything, from energy to resources to the way we look at the world and beyond, we're in this collapsing dynamic that's not going to end well for us at all.

Nate Hagens (00:46:40):

But a decline is different than a collapse. We could have half to two thirds of what we have today, and maybe there's a smaller population, and maybe we have less resources per capita, and maybe we still have some complexity, and it's not-

John Robb (00:46:58):

Well, I don't think it's a collapse in complexity in that sense, is that… Which is always potentially possible because of the collapsing complexity from the most complex portions of the civilization would be catastrophic. Most people can't even grow anything, right? Is that the system will become more and more domineering and more controlling in order to maintain order and structure as the physical world diminishes, and that could go on for a long, long time.

Nate Hagens (00:47:36):

Our order and structure about to leapfrog economic growth and more GDP as kind of the generator function of elites in charge. Right now, we're optimizing GDP kind of as our cultural goal, and AI and corporations are underneath that. But I'm wondering how the whole authoritarian control dynamic is going to unfold if what you're saying is true.

John Robb (00:48:07):

Well, you already see it kind of on the edges, right? So the environmental movement is more about control and structure. All of the AI stuff is control and the structures

imposed is based on alignment. You must comply. It doesn't really matter if you don't make more money. It must be done. Disney lost more than half its value doing that. So it's already happening. And just in the economic sense, our system is... If it doesn't continue to grow to handle, it won't be able to handle the debt load.

Nate Hagens (00:48:45):

Correct.

John Robb (00:48:46):

That kind of environment after that will be very dire and slow and a grinding existence, and I think people will-

Nate Hagens (00:48:55):

I've called that the Great Simplification, John.

John Robb (00:49:00):

Right. Yeah. Right. And what happens when you don't have access to the things you used to is that people will move to the things that they get access to for very inexpensively, which is this virtual stuff. You go anywhere in the world right now, even the poorest places, people have those smartphones. They're connected. And you go in the Niger Delta, people have three different services they're connected to, three different phones depending on which ones have connectivity at the time. And the same thing's going to happen to augmented reality. It's an ultimate escape. It's the ultimate way of controlling your experiences in the world. And if you don't do it in a positive way, a productive way, a way that moving you and society forward, it's going to be used to distract you and-

Nate Hagens (00:49:46):

And who's going to be pulling the strings there, the control levers? Is it corporations and billionaires or governments or some combination?

John Robb (00:49:56):

Corporations for the most part, with some government input. But most of those government input is on behalf of network tribes that are kind of wanting certain things, certain levels of alignment. No, it's a very, very small group. The funny thing is that we won against communism because of their centralized decision making system.

Our decentralized system was more innovative over time and more productive. It was able to solve problems, and that once we defeated communism and ended the Cold War, we globalized and financialized and that financialization returned us to a central, created a centralized system again, where very few people make most of the decisions about everything that goes on, and they don't make good decisions. They don't make investments like you and I. All the billionaires I know, it's more I want to hedge my stuff or I want to gamble wildly.

Nate Hagens (00:50:58):

That's my experience too.

John Robb (00:50:59):

And there's no in between. Yeah, there's no in between. There's no like, "Oh, I want to invest in this so it has a long-term payout." The only kind of anomaly in that space is, to extent, Bezos, and of course, Musk. Musk is a complete anomaly that he invests in the long-term. So it's weird and kind of nerve wracking to see so much riding on Musk, so much of the future, from electrification of cars to the autonomous driving to all of space. Space was dead, and he revived it. And his potential to actually push that out and actually make that a viable frontier for us again, expansionary frontier, there's a lot to ride on one relatively unstable guy. It's under pressure from everybody.

Nate Hagens (00:51:55):

And he's deeply involved in AI, presumably as well.

John Robb (00:51:57):

Oh, he's got an AI company. So he's got Grok, which is his AI built off Twitter data, and that's going to be another piece of this whole thing where… And he's going to open source it. So if you want to use that in order to teach your kids or work as your assistant or work with you and help you augment your life, you'll know what it's doing and how to change it and how to modify it. Because most of these open source AIs, you can get mods for them that point them in certain directions. They're not dictated to you.

Nate Hagens (00:52:29):

Here's a question I didn't anticipate asking you.

John Robb (00:52:32):

Okay.

Nate Hagens (00:52:33):

There's the factual implications of what you're saying, and people need to educate themselves and learn and make choices, but the emotional implications of what you're saying are really depressing and disheartening. And people are already worried about climate change and resource depletion and the end of growth and other things. And now, I think my sense, and I have a podcast, but I'm just kind of a normal guy in the Midwest, and the people I talk to have no idea of the things you're talking about.

John Robb (00:53:08):

Oh yeah, I'm sorry, but yeah.

Nate Hagens (00:53:11):

Yeah, no, this is your expertise. You don't need to apologize, but I think this is a really depressing pressing load to put on someone about the future. It's like, what? This too? And I just wonder how humanity's... We already have, I don't know what percentage of our population, but a lot who are mentally ill. And how is this going to fit in with that? It just seems like another Sisyphean boulder pushup.

John Robb (00:53:44):

Yeah. No, no. If cancer was the 20th century disease, mental illness, the 21st century. We're just at the cusp of the mental illness that we're going to run into, right? There'll be people that are so divorced from reality based on these new tech, it's going to be... We're already seeing a little bit of it, but we're going to see.

Nate Hagens (00:54:03):

Look at, like Jonathan Haidt was on my podcast, and now the last month or two, he's been tweeting a lot on how having TikTok and phones for thirteen, fourteen, fifteen year olds is directly impacting their mental health in terrible ways, and that those schools that don't allow the phones at all have better outcomes with the students and their mental health and all that. What you're saying with augmented reality and AI, it's going to be all that stuff on steroids, right?

John Robb (00:54:35):

Oh, yeah, 100%, though I do think you can raise your kids in a way that mitigates the damage that they'll experience from these online and technological experiences. Because my two youngest, they're Gen Z, and now they have great jobs and they're the most stable, productive people I've ever run across. Granted there's a lot of wackos that they have to deal with that are in their generation, but man, they're just, wow, what people.

Nate Hagens (00:55:03):

What do you attribute that to?

John Robb (00:55:05):

They use TikTok. They use all of that stuff. It's maybe knowing what they're experiencing. I get into TikTok, I use it. I use Twitter. I use everything. I can talk to them about how to approach technology and how to approach stuff. I've been counseling them on not becoming too political, trying to stay outside the frays, that this is also tribal now. People see an incident in a country far, far from them that they're not related to in any way in the physical world, but they're treating it like somebody killed their mother, right? And you got to avoid that stuff. You got to back off and... Like TikTok right now.

Nate Hagens (00:55:50):

Not only... There's going to be that stuff every month in coming years everywhere.

John Robb (00:55:58):

And TikTok's full of that stuff. The big war right now is trying to reign in TikTok because because the TikTok, anti-Israel effort right now is so big. It's not that there's disinformation, it's just making the case that Israel is the apartheid state. You have to get rid of them. And the amount of people that are seeing that, it's more than all of the networks, all of the newspapers combined every day.

Nate Hagens (00:56:32):

Is this what you refer to in your writing as tribal moral warfare?

John Robb (00:56:37):

Correct. Yeah. There's a tribal moral war underway over Israel, and there's one that was over Russia and the invasion of Ukraine. I saw the kind of internal politics, moral

warfare going on with BLM, and I was projecting that it would go global and probably hit Israel first. But when I wrote about it-

Nate Hagens (00:57:01):

You were right.

John Robb (00:57:02):

In 2021, I wrote about it that it was going to hit Israel and Ukraine hit before that. So it was like that was our first over escalation of a conflict that brought us to a new Cold War based on network amplification alone. And now with Israel, they've lost the under forties in the United States. They're 80% against Israel right now. They're not going to change. And the US is going to take a big hit in legitimacy with those younger, younger people because we've sided with Israel.

Nate Hagens (00:57:37):

Even though they live in the US.

John Robb (00:57:39):

Yeah. Well, US support for Israel is essential to their survival. There's no way around it. And they've lost it online. Those kids… People under 50 do not watch TV. They do not… They barely read the newspapers. They get most of their stuff second hand.

Nate Hagens (00:57:59):

Second hand, people under 50 don't watch TV, generally?

John Robb (00:58:05):

TV news. So generally, the TV news audience on any given night is say seven million people. One out of those seven million is under 55. All the rest are older.

Nate Hagens (00:58:18):

One million out of seven million.

John Robb (00:58:19):

One million out of seven million people, total viewers is under 55. And then when the kids watch it, I've seen kids react to the kind of nightly news stuff or coverage of this war, they go nuts. They can't believe how stupid it is and how terrible it was, and it

was so misleading. And it really wasn't that good. But boy, the reaction is decidedly negative.

Nate Hagens (00:58:43):

My mom's 83 and she watches nightly news twice. She'll watch it again an hour later. And I don't understand it, but I digress.

John Robb (00:58:54):

I don't watch any TV.

Nate Hagens (00:58:56):

I haven't had a TV since 1999, John.

John Robb (00:58:59):

Yeah, me too.

Nate Hagens (00:59:00):

And I used to delineate people at a party. You could kind of tell who watched TV and who not. There was an alertness. I don't know. It's changed now because I do have a computer, so I watch Netflix and whatever else, so it's not quite the same. But how are we as humans who care about the collective future and our own personal and family and community future, how are we going to know what's true or not going forward? Not only with social media, but now with AI. And are we going to naturally self-assemble into networked tribes that are stronger than the truth?

John Robb (00:59:47):

Already, we're seeing that the online news sausage machine is upstream of the conventional traditional media. So how they approach it downstream is usually determined online first. You can actually see it's like a pipeline. And the more I look at this, the less it is about disinformation. The more it is about how that information is interpreted. So when somebody says, "Well, Israel's conducting genocide." You can disagree, but it isn't like factually wrong on an absolute level. It's a disagreement interpretation. And what you do and how you act and how you respond to what's going on is based on that interpretation and that's being fought over. So there's a big battle over what interpretation, what values are being put into place to make your interpretation win. And so there's big effort to get the social networks to enforce a

standard whereby anyone who says anything different is screened out and blocked and isn't seen at all.

Nate Hagens (01:01:08):

John, let me ask you this. You obviously are wide and deep on a lot of these subjects. What's your day like? Are you thinking about all this stuff? Are you constantly finding new information on what's going on in the world or how do you make your own sense making of the world as a routine?

John Robb (01:01:29):

Yeah. I've set up my network so I can scan them pretty efficiently. So I have a pretty diverse set of feeds that allow me to see what's going on in every single different quadrant of the political spectrum. So I'm not being totally blindsided by something happening in an area that I was politically blind to. You know what I mean? For instance, in 2016, watching what the Hillary folks on Facebook were saying and what the Trump people were saying, being able to see both sides as they're working it out. And the same thing with all the information silos that are out there. But for the most part, I'm looking for just very specific things to pop up.

(01:02:17):

And when they pop up, it kind of fits in, "Oh, here's this framework that I wasn't able to actually invest in yet because it was still speculative. It's not speculative anymore because now I can see evidence of it actually happening. That means it's potentially predictive, therefore I should write about it." And how I write about it and how I get this, it requires a lot of subconscious grinding. So I'll play games and I'll read books and interact with my family and that kind of stuff. I'll let it grind in my background and subconscious, and then when it gets right, then I write it.

Nate Hagens (01:02:53):

That's exactly how I do my Franklies and some of my videos. There's this subconscious grinding that happens when I'm with my ducks or on a bike ride or something. I'm not even thinking about it happening in the background. So getting back to the Israel situation and Ukraine and others, one of your themes that you've written about is something called fictive kinship, and could you explain what that is? I assume it's that as our ancestors, we lived in small hunter-gatherer tribes and who was genetically related to us, we cared about them immensely for evolutionary natural selection

reasons. But now the internet has given us the feeling that we're related to people halfway around the world, even though we're not.

John Robb (01:03:44):

Yeah, initially it was just the clan unit, which is blood relations. And then to get to the tribe unit, which you had a couple of hundred people, you had to create this story and a set of rituals and other things that created a bond of fictive kinship with these other people and that they were like blood relations and that you're going to be with them forever and they're part of your tribal family. And that when that didn't fully go away, it was just changed over time as we moved into become nation states and patriotism and nationalism is a form of that kind of tribal bond, but it's a kind of diluted version of it, yet we still kill based on it, right? Patriotism gets people to join up.

(01:04:35):

But in the online environment, there are mechanisms that hack the way we think about things. And we are very vulnerable to what I call empathy triggers, is that we don't have any of the defenses that we would have in the offline environment. So if you see somebody being attacked like say George Floyd with a knee on his neck and you're watching that video, you feel that knee on your neck to a certain extent. Their empathy is not sympathy. It's a forcible-

Nate Hagens (01:05:08):

It's mirror neurons.

John Robb (01:05:10):

And it mirrors their mental state and it's forcible and it can be involuntary. And then you're super mad at the cop and you're very connected. You create this bond of fictive kinship with the victim. And if you see a Israeli kid getting killed or you see a Palestinian kid getting killed, you can create that bond of fictive kinship and that creates that kind of tribal connection that makes you a irrationally angry about that war that's thousands of miles away. Enough so that that landlord outside Chicago, they went down and stabbed to death that kid, that Palestinian kid that used to play in the tree house he built for him. Just because he was Palestinian, he was exercised over it.

Nate Hagens (01:06:06):

So presumably you could be exposed and influenced in a fictive kinship sort of way by having empathy towards an Israel kid that got killed, but then an hour later you could have the same reaction to a Palestinian kid getting killed. So presumably, who is biasing or controlling the social media or the AI that is in our feeds is responsible for triggering and creating that empathy. Or is the AI itself optimizing for clicks and for emotional response, therefore presented in such a way? How do you fit all that together?

John Robb (01:06:54):

Well, right now, at least on X and TikTok, you can come at it from any different directions. So you could see both. But what ends up happening is once you've created that bond of fictive kinship with one, and it's usually tied to your friend group and other people that are reinforcing that view is that you won't see the other. And there's a lot of reasons why you'll start to screen out any atrocity by the side that you're tacitly supporting. It's that tribal dynamic and you start to adopt the kind of patterns of sorting and sifting through information in order to support that tribal narrative.

Nate Hagens (01:07:33):

Do you sift it out consciously or does your feed sift it out automatically?

John Robb (01:07:38):

Increasingly, it tends to be the feed reinforces it for most people. And then it'll put it in front of you and then expect you to like it or to agree with it. You've felt that tension when you saw a post from somebody this close to you in your feed and you couldn't respond to it because if you did, things would blow up. And that's kind of the dynamic here is that now granted, if you controlled the network, you could control what people are seeing and you could amplify only one kind of sentiment. We had a little bit of that at the beginning of the Ukraine war. Anyone who wasn't a pro-Ukraine, trying to isolate Russia, anti-Russia, create a new Cold War, push, push, push, was marginalized and attacked aggressively.

Nate Hagens (01:08:36):

Tell me about it. That's why I didn't really talk about that as much as I would've liked to last year, and I'm afraid that I'm going to be able to increasingly talk about it less and less. I think speaking truth to power generally is going to be fraught with peril in the next 24-36 months.

John Robb (01:08:54):

I pointed out really early on that this wasn't the kind of rational leadership of we need in a nuclear world. It was very the impulsive kind of reactive leadership of a networked world, but it was running up against nuclear realities and that we needed to take a breather and figure out what we're doing and not provoke this… I mean, don't them send drones into Moscow, that kind of thing that would potentially lead to a nuclear incident would end the world. And so many people were like from March onward with attack, attack, attack. No such thing as nuclear war. It's not going to happen. If Putin does it's going to prove everything we said about him is true. I go, "That doesn't matter to me."

Nate Hagens (01:09:35):

It won't matter to anyone if it happens.

John Robb (01:09:39):

Yeah. If a nuke ends in New York City and everything in between that and LA, it doesn't really matter.

Nate Hagens (01:09:44):

So let's drill down on that. How does networked tribalism, which is the broad category of what you're describing here, and in some combination with AI, how worried are you about a nuclear exchange as a result of that in the coming decade?

John Robb (01:10:05):

Well, we came pretty close, closer than a lot of people would admit.

Nate Hagens (01:10:10):

I agree. You mean recently even?

John Robb (01:10:13):

Yeah, no, and there's continually incidents that are potentially could be misinterpreted because those drones hitting Moscow look a lot like cruise missiles. Could alert the wrong thing and then set off the wrong kind of response. But so the response to Russia's invasion of Ukraine went not so fast because there was already a tribal network that was in place fighting Trump and Putin was blamed for Trump's election

in 2016 by that crowd. Even though his influence was marginal, he was blamed as the ultimate evil in that instance.

(01:10:56):

He installed Trump in our and caused all the misery of Trump's reign of terror, according to them. So when Putin invaded, they went nuts. They went, "This is the worst thing ever. He's going to take all of Europe. Hitler reborn. We have to fight him." And that got amplified on the network and it just went insane to the point where everyone was disconnecting Russian corporations across the board, people kicking Russians out of discussion groups. It was like we went to embargo effectively from the west to Russia, which is one step away from tactical nuclear use according to the nuclear ladder of Kahn.

Nate Hagens (01:11:49):

I'm going to ask a specific Russia-Ukraine military question in a second, but this networked tribalism and this response that you just described, and sure there's Ukraine, Russia, you've mentioned an Israel example. There's lots of potential examples. Is there any way to combat that? If we can anticipate that that is a risk for society, this networked tribalism, which is going to be on steroids with AI in the near future, I mean, you mentioned owning your own data, but is this cat out of the bag? Is the horse left the barn in this risk?

John Robb (01:12:27):

Well, they could put in circuit breakers.

Nate Hagens (01:12:30):

How so.

John Robb (01:12:31):

Well, when sentiment for war or violence is spreading very, very quickly, you can slow it down, de-amplify it during those initial weeks. So you won't get as outsized response. Slow down the empathy triggers.

Nate Hagens (01:12:51):

Except the people that are in control of this stuff probably don't want… They want to accelerate that response.

John Robb (01:12:57):

I don't think the White House even knew what they were doing. They're just riding the wave. They weren't thinking. And then, I mean the funny thing is that Musk's experience with that is the reason he pushed through and ended up buying Twitter. So it's like he saw it going nuts and he was going, "This is dangerous. I really have to take action." And that this network didn't have a sense of mortality because it was a group mind. It was a swarm and that it was willing to push way up to the edge and beyond. It was maximalist in its goals. It wouldn't accept any nuance or break in the action. The only thing they would diminish it would be inactivity over time or being distracted by another event. That's the way it played out. And he ended up buying Twitter, and I think that gave him… It will give him some level of control over that. But TikTok is a different story.

Nate Hagens (01:14:02):

So I've heard that AI has increasingly actuation potential capacity and that in the example of Ukraine and Russia or anywhere in the world that you can tell an AI attack Russia under these circumstances, these scenarios and the AI will do it on its own. It will send out the drones under certain capacities and it will do a swarm so that they can't be shot down in some random way. And I don't know if that's true or not, but if that is true and we're headed in that direction, aren't there just countless examples of AI-assisted Archduke Ferdinand moments?

John Robb (01:15:00):

Well, I ended up writing the Joint Chiefs of staff concept on autonomous weapons about four or five years ago. They wanted a 20-year lookout and they didn't have any people on staff to do it. They brought me in and I worked out, went through their… Whatever they had on the available plus, made some projections and worked out some of the kinks and nuances. They were hard over on human control at the time. But the reality is that autonomy in weapons, which is basically AI, changes how you're going to use those weapons and changes in a bunch of different dimensions. It's like a smart mind. You could have it embed itself somewhere for a long period of time and then act, and act according to very narrow guidelines. You give it a wide variety of different targets that is allowed to hit and then allow it to go out and it can make adjudicate which ones to attack.

(01:16:09):

It's kind of extension of putting a little carrot on your target and then firing the missile. It's just a little bit more varied than that. The most aggressive version would be AIs that can understand and execute mission orders. Mission orders are the kind of order that Napoleon would write out and give to Marshall May and say, "Okay, here's what I want you to do." It's very short and sweet and you have a lot of latitude in terms of how you accomplish it. And then you give that AI access to swarms of different capabilities and have it execute the order. Now that's an entirely different thing, especially if they can self-provision, if they can embed deeply behind enemy lines. That gets really gets really wild.

(01:17:03):

One of the concepts I came up with that I don't think it was really taken up by many people at least, is that the really big breakthrough idea in using autonomous weapons is go for a concept called zero-day war, is that you use drones and AIs on drones, and deeply embed them in the enemy's geography. They screw themselves into the muck of every harbor, every river, every forest, every mountain range. There are some drones and they have different kinds of capabilities. And when the day zero of the war happens, moment it happens, they act.

(01:17:53):

And they set up area of denial right in the middle of the country. You can't fly a plane, you can't drive a vehicle without it being under attack. They started attacking the systems and bringing them down systematically and that they self-provision and they acquire their own electricity and other provisions that they need to sustain themselves. And that's a completely different way of warfare is that it makes it possible that once that starts, they'll capitulate before you even get your troops even close enough to actually take the locale.

Nate Hagens (01:18:27):

Well, maybe you only think people didn't listen to you. Maybe they did listen to you.

John Robb (01:18:34):

Yeah. No, there's lots of cool things you could do that would probably save a lot of human lives is say they had a silo of space like over the Spratly Islands outside off the shore of the Philippines, say a hundred miles in circumference or in diameter and that it's a capture of flag kind of scenario. But you can only use autonomous weapons within that confines and it's the military might and the technological capability of the

sides involved. And China and the US just fight it out constantly there to see who has dominance. And if somebody one side is far more dominant than the other in terms of the technology, it's a sign to the other side that they actually should back down where things could get ugly very quickly.

Nate Hagens (01:19:27):

That actually makes sense to me. This is all fascinating. I have a couple of hardcore questions for you, and I know that your family is home and your dogs want to be fed. So I don't want to take up too much more of your time. Though to be honest, I could go another two hours with my questions. But what are the odds that we make it through the next 10 or 20 years without a big war involving nukes? It just seems like so many things are pointing and that potential is looms large? Just your opinion.

John Robb (01:20:09):

Yeah, the first thing I ever kind of involved into in military strategy was nuclear warfare. And it's hideously complex. It's all psychological, all in the mind. And I was hoping that up until a couple of years ago, just before Ukraine, that we weren't stupid enough to actually stumble into it again, that all of our opponents you could actually visit and vacation in at that moment. And that all changed so quickly. It showed that we were far less intelligent than I ever suspected. So is there a potential… There's a relatively high chance that we could see a nuclear exchange. Now hopefully if it is, it's limited and it's so horrifying that we react against it. Just like we were lucky that-

Nate Hagens (01:21:03):

I mean, we would get an emotional reminder of World War II.

John Robb (01:21:07):

Right. I mean it may have been morally wrong to bomb Hiroshima and Nagasaki, to end the war quickly, but we were lucky they did it because that reinforced the horror of nuclear weapons and prevented the wars that followed, that would've been fought with them, and to far more devastation. I mean, we were able to navigate a tight rope, the whole of the Cold War and not trigger a nuclear annihilation of the West or the Northern Hemisphere. And that's a good thing. I just don't think our leadership right now is beyond the JV level. They're not serious enough people. And Biden has a little of that, but it's kind of scary is that how prone they are to just jump on the bandwagon. And I think there is a little bit of sentiment inside, at least the US

administration, that things were easier when we were in the Cold War. People listened. If we could return it a little bit to the Cold War, we can get back to that level of stability and compliance with government mandates and things. But it didn't happen and it won't happen.

Nate Hagens (01:22:20):

This leads to my second question. I've been in a different overlapping realm than you for the last 20 years looking at the system science of the human predicament: energy, resources, environment, behavior, economics, money, geopolitics. And I've concluded that there is one risk and domain that underpins all others, and that is governance and decision-making. And given what you've said on AI, and given what you've said on networked tribalism, how does a leadership or a government go beyond JV level. And especially in the US, how do our decision-making systems avoid the bad feedback loop of poor decision-making in this world fraught with peril? Do you have any thoughts on that?

John Robb (01:23:21):

How does the political leadership in the US mature? I don't think it does, and for a bunch of reasons. One is that the problem sets that we're facing are so complex that our leadership style and the method of governance is beyond its capabilities. And a classic thing is in a complex environment, you have to try out a lot of different things and you pick the ones that work, reinforce them. We're more, "This is the way to do it. The bureaucracy says this, and if you don't like it, we're going to force you to adopt it." Also, our system doesn't have any opt-in features, meaning that it doesn't have any equity participation in the sense that I get benefit for participating in it. And in a networked world that's important. It's actually a requirement. We just kind of assume because you're inside the geographical borders that you will be loyal to it and contribute to it. And of course then you find that people don't think that way.

(01:24:19):

Another thing is that we're seeing a kind of hollowing out of the old nation state. It's losing a lot of the power that it once had. Classic example, most recently it's like we lost complete control of the border. Border's gone. It's broken. And that letting 8 million people in over the last three years, size of what the 13th largest state, largely, almost completely unvetted, those people are going to disappear. They'll never be

seen again once now that they're in, from all over the world. It's not just central or South Americans.

(01:24:59):

Then a hollow state has the facade of being effective government. It has all the pomp and circumstance. It gets on the front. It acts like it's in control, but it has no effective control. It doesn't have effective control of the messaging over the borders, over the physical world. It doesn't have really control over its economy because it's all over the map. It's too big to control. It doesn't have control over its finances because it's increasingly broke.

(01:25:23):

Best we could hope for it, a historical counterpart to where we're at. It's kind of like going back to the late 1800s, 1880 to the kind of end of the golden age kind of timeframe and where you're high levels of foreign born immigration in the United States and it's chaotic. Everyone's breaking into their little communities. There's no sense of unity and common purpose or desire to do things together anymore. We can't agree on anything. It's chaotic. I mean, funny thing is almost all of our progress socially was done between the end of World War II and 1980 or so. And that was during the period of the lowest level of immigration ever. It's like we assessed and consolidated.

Nate Hagens (01:26:22):

Well, it was also the highest level of economic growth ever.

John Robb (01:26:26):

Yeah. But also incredible amounts of technological innovation and the like. So we didn't need that kind of… We just went to the opposite extreme. We didn't like to do a moderate increase in immigration. We went beyond, and it's hollowing us out even faster.

Nate Hagens (01:26:42):

So what happens at the end state of a hollowed state?

John Robb (01:26:49):

I think hollowed states can exist for a long, long time. More and more of the power goes to corporations. We're already seeing that. There's a tendency now, I did a report

on my Global Growth report thing on Substack and Patreon that looked at an Edelman survey. Edelman Public Relations is the super slick PR organization that handled Microsoft back Windows 95 days and they were slick, I mean, super sharp. They were looking at corporate trust and what do people trust and what do people demand of corporations. They found that corporations are far more trusted now than governments worldwide, at least the collective West across 23 different countries. And that people expected corporations start to pick up slack, start to do what governments weren't doing and take on bigger roles. They were willing to politicize corporations and cede to them a lot of control over their lives that I hadn't expected to see a shift that market. It was like 60, 70%.

Nate Hagens (01:27:58):

With all the trends that you're describing, are we all going to gradually become authoritarianism fans of one flavor or another?

John Robb (01:28:08):

One of the weird things about the current environment is that we wiped out fascism as a system back in '45, right? Communism, one big bureaucracy, US, kind of this chaotic system, but government was portion of it. And a lot of corporate bureaucracies and everything was corralled in kind of a common framework. But as we got into this new network age, almost everyone's become fascist of one state. I mean, China has become fascist. US is headed towards a fascism, a network fascism.

(01:28:42):

Network fascism is different than traditional fascism in some ways, but it works on the same principles, that you create a bunch of enemies internal and external and you use that to get a very chaotic system of corporate and government bureaucracies and NGOs and individuals aligned and facing in the same direction and that you have to hype and hype and hype those enemies to keep everyone focused. And it works. It works really effectively. I mean, especially in the network environment, it's much more effective than the big live stuff that Goebbels put in place. It's almost more pervasive, more insidious. And the problem with that-

Nate Hagens (01:29:33):

It almost for sure will get worse with AI.

John Robb (01:29:37):

Oh yeah. And so China does the same thing, it's like, focus on the enemy. And that works in the network tribalism I see. It's usually anti something. It's never for something like traditional tribalism. It's always against anti-racism, anti-colonialism, anti whatever, anti-Israel. And the problem is-

Nate Hagens (01:29:57):

And climate change is anti-fossil fuel companies.

John Robb (01:30:00):

Correct. Yeah, exactly. So the problem with the fatal flaw of fascism, obviously, or maybe not obviously to people who think it's some other jack boots or something because you got jack boots in communist systems too, or secret police in those systems too. The fatal flaw of fascism is that it eventually gets you into war with everybody and you hype up the internal threat from internal enemies to the extreme that you're putting them in concentration camps and killing them. And they kill 12 million people because they're eternal threats that are so dire. Or you declare war and invade everybody because everybody's an existential enemy that's presenting an imminent danger. And it's self-defeating that way because they get rolled. It's that you can't be at war with everybody all the time.

Nate Hagens (01:30:47):

What is the cultural antidote to what you're describing? And to the listeners and viewers of this program, what's the individual antidote to some of the things, some of the risks that you're outlining?

John Robb (01:30:59):

I'm big into localism or local control or regional control. The more layers of decentralization we have between us and the global environment, the better. And in terms of technology, I'm big into having more and more control, open source AIs and the like that that could be a safety valve. I hate the idea that all the apps and everything else go through these big mega stores on the platforms, charge 30% tax on everything they do and also limited in what could be offered and what can't be. I want to see more like a decentralized modern community for the AR glasses and everything where I could get mods from all these different things and load them up and use them without filters.

Nate Hagens (01:31:41):

But in order for some of those things to happen, people need to be educated about these risks first. Otherwise, there won't be the demand and the push for open systems for AI.

John Robb (01:31:53):

Yeah, it takes a long time. I mean it's trying to sell social networking in 2001. It's like a couple thousand people, right? I mean, no one want to hear-

Nate Hagens (01:32:01):

Tristan Harris is a good friend of mine and they've kind of failed so far on trying to regulate AI and some of the initiatives in DC. I mean, I don't know specifics.

John Robb (01:32:12):

I talked to Tristan too. It's like, yeah, he was up against a Goliath. I was hoping that he would just stick with something simple like the data ownership thing. It's like once you get the idea that you could have a kind of banking style industry managing all our data and there's going to be reams of it, not just our names and phone numbers and that kind of crap, I'm talking all the deep data like your facial expressions and how you walk and how you… That goes into modeling populations as a whole and creating simulations and other things that are extremely valuable to everybody. What you say, everything you say, how you say it. And that-

Nate Hagens (01:32:55):

So first of all, I'm already kind of screwed. There's no way I can go and delete my Twitter posts and Facebook because I've been out there quite a lot. So if AI is modeling me, they've already got a pretty good model. This is really depressing, John. I really wanted to talk to you about networked tribalism because I'm worried about polarization and the fact that we can't have conversations, that everyone has hot buttons, that if you say this, you're a Putin apologist. Or if you say this, you're a fan of the fossil fuel companies. We can't have a balanced conversation about the human predicament in our reality and you've kind of indirectly convinced me that things are worse than I thought.

John Robb (01:33:41):

Yeah. It might be ugly, but I think we're going to muddle through. I'm just hoping that we can avoid a lot of the badness that's going to end up happening. Probably not, but I'm betting on hopefully that we get out into space. I think that if we can't get into space, I think we could end up just collapsing to nothing.

Nate Hagens (01:34:10):

When you say get out into space, what do you mean by that?

John Robb (01:34:14):

Is that we have to start developing and expanding beyond Earth. And my guess is that Elon will probably… I mean I wrote a little article about how to accelerate it using asteroids and the crap, but my guess is that Elon is probably going to end up putting his dojo supercomputer for training AIs in space because you can get solar power cheaper than you can get on earth and a scalable volumes that far beyond what you can get on Earth in the current environment, particularly since those supercomputers now and most of the cloud stuff that goes around with AI is so power intensive it chews up the power of a medium-sized city and then it's growing even more.

Nate Hagens (01:35:00):

So if Elon wants orders of magnitude more compute than he has now, you think his plans are to do that in space?

John Robb (01:35:08):

Well, running these big clusters to train AIs and to host AIs is almost all power-related costs. 80% of the costs of actually running those systems is energy costs. And energy costs are going up seems like everywhere here, terrestrially. And here you have this window in space that he alone really can access. Once that starts going, once he starts building those big solar arrays and then he starts to look at ways to do it cheaper, I think he could end up pulling in asteroid materials.

(01:35:47):

The reason why those asteroid materials are going to be so valuable, it's not just because they're equivalent of what you can get on earth and cheaper. It's that it's already in space. And you use those materials to start building arrays and more and more solar arrays. I'm talking like solar arrays that could equivalent be equal to several diameters of the earth. There's so much space up there. Running our cloud

infrastructure first and then eventually over time becoming capable of beaming down energy to use microwaves for swing production in various hotels that need it that are paying through the nose for alternative. But potentially, electricity is almost too cheap to meter if done correctly in space.

Nate Hagens (01:36:35):

If that's all plausible, which I'm pretty skeptical of because it takes energy and there's a payload and there's mining and there's zero gravity and how do you drill an asteroid in zero gravity. There are constraints.

John Robb (01:36:48):

Yeah. I'm not even worried about the asteroid portion that's potentially downstream, but once you regularize space in the near earth environment, everything else becomes much, much easier.

Nate Hagens (01:37:00):

What are your opinions about climate change and the ecological destruction of species and some of the environmental limits that we've already well exceeded and how does that fit into this story?

John Robb (01:37:17):

It's just a thermodynamic box that we're in. As human civilization has reached limits of its environment and as a dissipative system, we either expand and go out or we die. There's no going back. There's no turning back that system. It's too complex. It's operating too far from thermodynamic equilibrium and we're just dumping this entropy into our living environment and we will die heat death. We will totally run out unless we create a larger external environment that we can expand into. And if we don't get to type one, and type one civilization is that we pull in as much energy or generate as much energy as the earth absorbs from the sun on a daily basis, then we die. It's like a shark. We got to keep on going forward. We have to keep on getting to bigger and bigger environments or we perish. It's inevitable.

Nate Hagens (01:38:22):

Coupling that with two other things you said earlier that Elon Musk is, one, might describe as unstable, and number two, he's the only one that has been the founder

and first… What's the word? The early adopter of doing things in space. So doesn't that give you pause a little bit?

John Robb (01:38:52):

Yeah, it's mitigated just a slight bit by the fact that Bezos has Blue Origin still and he's pouring billions in, and he has a big cloud computing company, is that if Musk starts hosting the cloud in space for cheaper energy, Bezos won't be far behind. And then there'll be a race to see who can get the most cloud infrastructure built running at a levels of efficiency you can't match at the terrestrial level.

Nate Hagens (01:39:20):

I don't think this is going to happen for various technical reasons, but more larger systemic reasons, which is if that happens, then the Great Simplification is not true or not going to happen. I think our space exploration success has been based on an era of energy surplus, which is ending and we're masking it by creating debt and central bank supports. But I just don't know that we're fiscally able to do the magnitude of things like that, even Elon Musk.

John Robb (01:40:01):

That's why I'm trying to come up with ways to simulate an internet boom where we raised trillions in capital based on speculation and becoming on paper, very, very valuable and that we build out the infrastructure that is needed for it to start to create its own weather dynamic, its own economy. And that if done correctly, it could generate the energy surplus we want and the resource surplus we need ad infinitum. I mean the whole solar system is available for us to take advantage of. It's just getting over that cost barrier.

(01:40:41):

Right now we're sitting at this kind of… We're at that step function level and we're looking up and seeing that cliff up there and we can't seem to get out of it. But if we can fool the system into getting us up there or get Musk to kind of create a little stampede on his own by doing something that everyone else wants to emulate, then we might get out of this. But otherwise, it's just more entropy on earth, more social entropy, more physical pollution entropy, more chaos done.

Nate Hagens (01:41:23):

I would love to have you back to unpack some of this maybe on a round table with other experts in this, on all this stuff.

John Robb (01:41:31):

Sure.

Nate Hagens (01:41:32):

But as is, I really appreciate your time. This is an unusual interview for me because I usually am talking specifically about ecology or oil or neuroscience, and I haven't talked to too many tech experts in this way. And again, the only reason I invited you is because I've been following you for over 20 years and I know that you have core insights on this stuff.

(01:41:57):

So usually at the end of my interviews, I ask a few personal questions of my guests on their first interview.

John Robb (01:42:05):

Sure.

Nate Hagens (01:42:05):

I hope you don't mind. But I think you've probably freaked some people out that are watching this show. Do you have any personal advice to the human beings, just as a humans, on what people can personally do during this time of what some call the meta crisis now on top of network tribalism and AI and other risks that you discuss? What kind of advice do you have, John?

John Robb (01:42:31):

Don't let what's going on in the online information space, the abstract space, dictate your mood and how you think. Focus on living life. Grow your garden, raise your family, spend time with them. Work with them to make sure that they're successful as possible and live great lives. Live up to their potential. Got a big house and my two youngest are living here and working from home at great companies. They're about to start their own lives with… But I want them here as long as possible, which is great. Focus on that. And if you can do that, that will level set you make feel a lot better about the world.

(01:43:26):

You can focus on improving that and looking for signs that that actually is being infringed upon or by this chaotic external environment and taking measures to kind of mitigate that damage. We live in this abstract meta space almost too much now. I mean, I've been doing it since '94, '95 and you're doing the same thing. It's like I think we've developed our sea legs to a certain extent that we're not too thrown by how things are maneuvering and how things are swaying to and fro. But balance. Balance. This is a marathon. Even if there is chaos, it's still a marathon.

Nate Hagens (01:44:16):

That's good advice. What do you recommend to young people? And just like you said, there's not too many people under the age of 50 that watch TV. There's not too many people under the age of 30 that listened to this podcast, but what recommendation do you have for 20 somethings becoming aware of all this stuff?

John Robb (01:44:36):

I don't know. I think it's probably the coolest environment to be alive in ever, I mean in terms of the opportunity and things you can learn. I remember living before the internet and then watching it turn on bit by bit by bit by bit right in the kind of [inaudible] watching this. It was like my brain turned on. It was like, "Wow, this is cool," and then see the opportunity to learn things and to work almost anywhere.

(01:45:02):

I mean, I'm employing guys who do software for me at times who were sitting on a beach in Turkey living a great life, or you can work online like my daughters do and you could live anywhere. You can stay in a family house, or you could go live in London for a while or go live in a cabin in Steamboat Springs or whatever. It's like the world is your oyster. It's awesome. Your ability to bootstrap yourself to wherever you want to be and wherever you want to go is easier than ever. And granted, there are the threats out there that can impinge on you in the future, but develop skill sets that mitigate those damage. Learn how to grow stuff, learn how to fix stuff, learn how to do all those things. As long as you have the skill sets, it doesn't mean you have to do it all the time, but if the problems arise, then you could actually deal with it.

Nate Hagens (01:46:03):

What do you care most about in the world, John?

John Robb (01:46:07):

Oh, family. That's a pretty easy one. Pretty much drives my life. And a far second would be just dogs and things like that. Just like daily conveniences-

Nate Hagens (01:46:19):

Well, dogs are family.

John Robb (01:46:21):

Yeah, I mean, I've kind of created kind of I'm more of a muck. I'm very happy with that. I was happy at the Air Force Academy when I was up and isolated from everybody else working all that time. It's comfortable.

Nate Hagens (01:46:36):

If you could wave a magic wand and there was no personal recourse to your decisions, what is one thing you would do to improve human or planetary futures?

John Robb (01:46:47):

Develop space. I mean, as much as everyone has a negative reaction to it, I've been thinking about it since I became an astronautical engineer, failed astronaut candidate, is that I never really got aligned. It should have blew up before I always had a chance.

(01:47:05):

So we have to keep on going forward. We've stalled out at this step function. If I could wave my wand and say, "Let's spend this money or invest this money and build this infrastructure and start regularizing our use of it, opening up horizons and looking forward into a world, to a future that has unlimited potential," I would do that. Because if you're just looking at your navel, looking at fixing the things that are wrong with this world, there's a never ending hole that will go down forever. It's like looking into the abyss, that famous romantic painting, right? Gazing into the abyss. That's where we're at right now, is we keep on gazing into the abyss and we're not looking up. We're not hearing that kind of the roar of a star. It's out there burning and calling to us. It's like, "Got to go. It's time to get up. Leave the womb, man." We're in this womb and we don't want to leave. And mom's like, "Get out" and we're not. And I would like to see us get out.

Nate Hagens (01:48:20):

My view, and I don't know as much about it as you, is it actually would require a magic wand to make that happen, but we shall see. I really respect you and your research and your opinion, so I'd love to have you back, maybe take a deeper dive on some of this stuff. Do you have any closing words to sum up this conversation for our viewers?

John Robb (01:48:44):

Sure. Since a good portion of it at the end there was dedicated to space, I got involved in the interactive television effort early on to build something like the internet back in '93 with the big telcos. And they could not, there was no vision from that point forward that internet would ever be built. It's too much money, hundreds of billions of dollars, the payoff was too uncertain. They couldn't imagine what they do with too many technological steps that they still would have to discover and figure out ways to do, and they abandoned it. And here comes this internet done in the right way, the right kind of bootstrap and it got built in a decade. A decade. Something that never should have happened, but it did. And it's crazy how it built out so quickly. And I think we can do that here with this, with space, same way. Just ignite it in the right way and then it just goes. And it won't end. It won't end in our lifetimes at least.

Nate Hagens (01:49:47):

The first thought that came to my mind hearing your appeal there is, can you imagine networked tribalism with AI and space?

John Robb (01:49:59):

Yeah. Yeah. It gets pretty ugly, but if you do it right at the start, which we probably won't, but you can mitigate a lot of those problems. Just like the data ownership and AIs, if we'd done it right initially, everyone would have more participation in the upside potential of these AIs. And that would change the dynamic in terms of fear of where they're going and how they're developing a good bit. If you knew that you had some, if whatever this is going to develop into this AI economy, that you had some upside potential there that all boats were rising, it would change your perspective on where we're going in a big way. But the way it's looking right now is that a few boats will rise to the moon and back, and then the rest of us will sink, get sucked dry. I just want to see this doing it right.

Nate Hagens (01:50:55):

Thank you for your insights and your-

John Robb (01:50:57):

Thanks, Nate.

Nate Hagens (01:50:57):

… continued work. To be continued, John. Thank you.

(01:51:02):

If you enjoyed or learned from this episode of The Great Simplification, please follow us on your favorite podcast platform and visit thegreatsimplification.com for more information on future releases. This show is hosted by Nate Hagens, edited by No Troublemakers Media and curated by Leslie Badlutz and Lizzy Siriani.