



Jake 00:10

Thank you so much, Albert for taking the time and coming and joining me on the show today I've been looking forward to doing this recording for some time, when I first started the podcast, transparently, you were right up at the top of my list of people I wanted to have on the show. And now I'm about 50 episodes in. And it's really cool to have you on your book, world after capital is one of the one of my favorites I've read in the last year or so. And I've actually read it twice now once about a year ago, and once in anticipation of this call, and you've made some updates since then. So it's it's actually a cool kind of live, you know, updating book as well. And all that goes to say is, it's great to have you on and looking forward to talking about a number of different topics with you today.

Albert Wenger 00:54

It's great pleasure to be here. And it's actually wonderful to hear that maybe it sounds like you feel it actually has improved, which would be good.

Jake 01:03

Yeah, I'd be I'd be fooling myself to say I had such a good memory to remember the exact changes, but I loved it the second time through and, and I know I liked it a lot the first time through. So let's just say that it's, it's improved, I think it was a bit clearer to me the second time around, I don't know if that was just me getting a second read or actually some improvements to it. But either way, I highly recommend people go and check it out. And so one of the things I want to do today, really the main thing is to dive into a number of different concepts from the book because, and ask some questions that maybe you haven't quite answered as explicitly before on other podcasts and alike. Because I think it's a, you know, it's no small attempt that you've made with the book, it's, it's arguing that it's time to leave the industrial age that we're basically heading towards this fourth major era, you know, we had like the foragers, and then the agrarian period, and then the industrial age, and now you're arguing, it's time to kind of welcome the knowledge age. And so you know, a part of that kind of transition from, from your perspective is that we're exiting this time period, where capital was the scarce resource. And thanks to digital technology, capital, you know, in large part, as well as just the the, you know, the fruits of the industrial age, we don't really have capital scarcity anymore. And now what we have scarcity of its attention. And so I think a great place to start for people who aren't as familiar with the book will be just to kind of lay the the overall framework for the book from that perspective, and describe why it's time to make this really third major transition in the history of humankind.



Albert Wenger 02:43

Well, you did a great job of sending it out here at the beginning, basically, you know, technology comes in these sort of big waves. And when we get a big wave of technology, what it does is, it kind of changes what the binding constraint for humanity is. So the first big technology wave was sort of our invention of agriculture, which consists of recognizing that you can put seeds in the ground that you can irrigate, that you can domesticate animals, and so forth. And that led to a change in the constraint from food directly for foragers, they had to either find enough food or they had to migrate or maybe starve. It led to the new constraint, which was land. Did you have enough land of which you could plant enough arable land, in which case you were able to sort of build a successful agrarian society and then only and that was only about 10,000 years ago, right. So in the history of humanity, there were a lot of time spent in the forage age than 10,000 years ago, we have this big technology wave and we kind of enter the agrarian age. And then only a few 100 years ago, we have so the Enlightenment, we have a lot of scientific breakthroughs. And all of a sudden, we can, you know, make steam and electricity, and we can have chemistry and mining and so forth. And the constraint changes again, and it's no longer how much land do you have? Because, as it turns out, we can make land vastly more productive through fertilizer, for example. But it turns out the new constraint is, how quickly can you make fertilizer? How quickly can you make tractors and roads and buildings and machines and so forth? And, and that's what I mean by capital, I really mean in the book, physical capital. And today, my thesis is, look, we can make physical capital really fast. I mean, a great example of this is you know, look at you know, Tesla Giga factories, right. I mean, they just pop these out of the ground at an incredible speed, which is really, I think, you know, taken the old car manufacturers by surprise because they thought, Oh, it's gonna take them even if they get bright, it's gonna take them a lot of time to ramp production, but now we can make capital. Like we really know how to do that. And another example I like to give is, you know, during the coronavirus crisis. You know, the Chinese built a couple of hospitals basically in a matter of days, right. So that's not what's really holding us back at this point, that's not really the constraint. So it really comes down to this attention constraint and, and maybe I'll just leave it there and see where you want to want to take it. But it really is about these are big technological shifts, that, you know, have been coming more frequently, in a way. So the agricultural shift was 10,000 years ago, then a couple 100 years ago, the sort of industrial shift. And now, you know, we have this full fledged computation and digital infrastructure. And that is as big a shift as these prior shifts, I think is an important point to wrap one's head around.



Jake 05:43

Yeah, so one thing that I'd like to kind of double click on there is, you know, when we went from being foragers, to farmers, in the sense, there's a certain set of sort of, you know, very old, and, you know, basic technologies that humans came up with, to allow that shift to happen. And as such land became the the scarce thing, because, you know, that was where we were getting our food from, and now, similarly, you know, like, it's not like capital makes land, but capital does, in a sense, make land more productive. And ultimately, it's all going towards, if you go back to the original scarcity of like food, or you know, consider that more broadly. We'll talk more later about this, because you lay it out in an amazing way in the book, but general human needs, which includes not just food, or specifically like calories and nutrition, but also oxygen and water and things like that. I guess the question that I have, that I'm curious about is, you know, we have the catalyst for this next transition. From your perspective, my understanding is digital technology, which has certain unique features, namely, zero marginal cost. And what was the universal universality of computation? I'm trying to use the terms from the book. And, and you know, that technology, some people could view it is like, just another invention. But really, your argument is that it's it's extremely fundamental to what we as humans are capable of, and therefore we kind of are in need of this next transition. And then kind of separately, and maybe they connect in a way that I'm not understanding. So clearly, but separately, you're arguing that like, okay, here are the basic human needs, which again, we can talk about a little more depth, but it's it's things like food, and water and oxygen and shelter, and, and things like that. And, you know, I guess, from my perspective, like, Is it just a coincidence that, at the time where we have this digital technology, that demands that we really get a focus on? Are we able we become able to allocate our attention better, because it's a scarce resource? Does that coinciding with our ability to meet everyone's needs for capital? Sort of coincidental? Are the two tied together if that makes sense?

Albert Wenger 08:02

No, that's a great question. I, what I would say is that the reason that capital is no longer that binding constraint is that all these needs these very fundamental needs, they're not constrained because we, you know, don't have the capital. So take Texas, for example, right now, you know, people are literally dying, because there's no electricity there. But that's not because somehow, America or even Texas itself doesn't have enough capital to provide electricity. It's really because people weren't paying attention to is our grid prepared for a extreme cold weather event? And what would it take to be



prepared for that? And the thing about attention is, attention is to time as velocities to speed. So speed is going 55 miles per hour. But law says I'm driving 55 miles per hour north on this particular highway going towards the city, like you're nearby Albany, let's say right. So and attention is sort of the directionality of your mind like it's as time goes by, what is it that your mind is occupied with? Right? And so the interesting thing about that is you can't go back in time and fix that, right. So Texas can't go back a year ago and sort of say, Oh, we should have really paid attention to like, whatever. There's an extreme cold snap, like what will happen to our natural gas wells, for example. It's like when you get when you stroke for an exam, if you haven't studied you can't study at the moment, right? And so this is why attention has this interesting, fundamental scarcity to it. And the way I define scarcity in the book is through what I think of as a technological or physical type of scarcity. So what I mean by that is something is a scarcity, if it has the effect of preventing us from meeting our needs, and right now, people in Texas are dying, their basic needs aren't met one of those basic needs being maintaining our body temperature, which we can, if it's freezing outside, because we don't have firm anymore, and we're not animals, they can survive a night outside in, you know, below freezing temperatures. So, um, and the reason for that is not because there isn't enough capital around. The reason is because we haven't deployed this capital correctly. And that reason is because we haven't paid attention to a fundamental problem here. And so that's why I'm sort of saying in this digital age, we've entered the digital age, we have a lot of distractions, we have a lot of attention that's all over the place, social media, watching Netflix shows all these things that we can do. And instead, there are lots of problems, but also opportunities that we're not paying attention to. And it's that that's starting to come and bite us more and more. And the climate crisis, the Texas crisis, obviously, tied to the climate crisis, the climate crisis is sort of the biggest thing, where I think we have this attention scarcity problem.

Jake 11:21

Right? So you just kind of hinted at a couple or, you know, gave a couple of examples that hinted at the scarcity of attention in terms of, you know, humans as a collective. And then I think you do a great job in the book as well of going to the individual level, which obviously comprises the collective and saying, okay, where is our attention? Where is that, you know, as, like, attention is to time as velocity is to speed where we actually like spending our time one, but also, you know, what are we thinking about or doing? And, you know, what are our intentions during that time, so we might physically be at the office, or maybe a year and a half ago, we're at the



office, now we're at home, but really, we're like, on our phone, on Twitter, or something like that. And yeah, basically.

Albert Wenger 12:07

And a lot of our attention today is still very much in industrial age. situations, right. So in the book, I talk about what I call the job loop, which is this idea that most of us, you know, spend most of our waking hours at a job so that we can make money that we can then spend on goods and products, which are goods and services, which are also made by other people who have a job. And that job loop, when you combine it with entrepreneurial economies with market economies with venture capital, finance, that job was incredibly successful for a long time period. So don't get me wrong. I'm not saying historically that somehow was needed. But the place we've gotten to today, we have so much attention trapped in that attention that could be directed towards other things. And those other things are things that don't have a price attached to them, which is why it's so hard to direct attention to them. So one of those examples they give is people thinking about and discovering an individual purpose in life, right. So a lot of the way we're set up is sort of like you, you sort of think when you little your parents tell you to go to school, and then when you go to school, you know, you'd like it's about getting a job, and then you get a job and but there isn't this discussion, like why you're actually here, obviously, historically, for a lot of people religion filled that, you know, religion told them what their purpose was, but, you know, not that many people are necessarily belong to an organized religion these days. So there's this sort of big vacuum where people are not paying enough attention to their purpose. And then they get to a certain point in life, whatever, 4050. And they have this huge midlife crisis, because they haven't thought about what their purpose is. But I do think this crisis of attention, or scarcity of attention exists at the individual and at the collective level. And it is, I would say, the thing that we need to most work on no longer that sort of scarcity of capital.

Jake 14:04

Yeah, it's, I want to run with the subject of purpose a little bit, it seems to me that more and more, I'm seeing people having, you know, basically, like a crisis of purpose, like you mentioned, it might be midlife. But you know, I'm relatively young and I'm seeing people having like a quarter life stage, and wondering what they're going to do with their life and and why that's meaningful for them. And I've actually never heard it. So kind of concisely summarized as as it was in the book, and I think this might have been something I don't remember it from my first read, or it might have been a new addition. But you basically talked about how like, you know, automation is,



is taking some people's jobs and not only is, you know, poised to become more so the case and secondarily to that and so that's like relatively self descriptive, like people attach their identity and their purpose to their job, they lose their job, they lose their purpose. You hear this with like truck drivers and things like that. But the second thing That I hadn't put together as closely as like this sudden influx of global information where anyone from anywhere can attach the internet and go on Twitter or, you know, whatever news outlet they have, they're all of a sudden exposed to all of these views and beliefs that contradict the ones that they're, you know, that they might have grown up with more naturally, and like their family and friends and community, and whatever it is. And that also can take a huge dent on people's purpose, if you're from like a religious background in, you know, a South American country, and all of a sudden, you get exposed to certain science that, you know, contradicts a lot of what you associated your purpose with. The combination of the jobs and the exposure to new information in a sudden fashion, is maybe what's at the very root of this purpose crisis. So I'm curious to hear you know, you've talked about how you've, you've asked people like maybe my age who are asking for advice on like, their career, like, what, what is driving them, like, why they want the job, or why they want to do what they do, and they don't really have an answer. So we'd love to hear you just kind of like, elaborate on this purpose crisis, and maybe what the potential fixes, or at least some ingredients that might be involved in the potential solution.

Albert Wenger 16:11

Yeah, you know, I mean, this, obviously, is a domain that philosophy has had a lot to say about. And when I say philosophy, I mean, really more of this sort of older applied type of philosophies, like the stoics, for example, you know, this question of what does it mean to live a good life? That's a related question to what does it mean to have purpose? And I think we used to, in a way, there was a time when when, when people sort of, I think, had a little more of an idea, because, you know, an early industrialization, for example, there was this idea of all these things yet to be built, and you could see a purpose in helping build one of these. And, you know, I think that was also true in the digital realm, early on, you know, there was sort of a whole bunch of things to be built, and you could see a purpose to build those. And by the way, I think there are many of those lifts in the digital realm. There's many things that can be built. But what happened along the way, was the confusion around having a job a paid job versus building something that's needed. And I think that confusion can be traced to a number of different things like there's, there's a cultural element, there's an element of how education works today. So so much of school is like you, you



know, people obsessed with getting this kids into the right like, nursery school, so that he gets the right elementary school. So you can go to the right schools at the right college, and so that they can work at Goldman Sachs or or McKinsey. And there isn't sort of enough built into this entire educational journey, there isn't enough built into it, where people are sort of asked to think about a larger purpose and purpose beyond them a purpose beyond wealth of purpose, beyond the sort of kind of things that I think we've come to confuse with purpose. And related to that something I talk a lot about in the book is this idea of mindfulness. Right. So you can go through school today, I think, you know, there are some more progressive schools that are beginning to to include mindfulness. But certainly I went through many, many years of school, including graduate school without ever, you know, having somebody say, Hey, you know, one of the things you ought to develop some kind of mindfulness practice, so that you can maybe reflect more freely on some of these things that are being presented to you through advertising through peer pressure through, you know, everybody's doing it this way. So why aren't you, you know, those things to be able to disconnect from them and evaluate on your own requires the ability to create some mental space where you can sort of be like, freer, and sort of not be afraid of doing something different, for example. And mindfulness really helps. So I, so I think we've sort of lost this idea of purpose. And it's, I think, incredibly important, and we've sort of substituted fairly fast style and very industrial age things for it. And I believe it's very important to return and make room and really make that a central question make the question of what does it mean to live a good life? Which was a question that people thought a lot about, um, to make that a much more common thing again, for everyone?

Jake 19:43

Right, so you know, people, people losing their their jobs being one of the major drivers that people are kind of struggling with this lack of purpose. As we, as we talked about,

Albert Wenger 19:55

or increasingly not even finding a job, you know, in the first place.

Jake 19:58

Yeah, that's that's right. So Either or there's a there's an argument, which I think you call the magic employment or magic jobs fallacy, something like that where, you know, a common retort to people who say, Oh, yeah, truck drivers might lose, lose their jobs to self driving trucks, but there's always more jobs, you know, right around the corner for new things. And you



actually argue that no, this this time is different. Can you explain the logic behind that?

Albert Wenger 20:27

I think there's a really profound confusion here. For a lot of people, we are never going to run out of interesting things to do. Right. So um, you know, spending time with a friend, caring for children, taking care of nature, exploring outer space, and we're never running out of interesting things to do ever. But whether or not he can get paid for something is a completely different and separate question. And I'm one of the first people economist to think seriously about this was Leon TF. And Leon TF sort of remarked how at one point, we had horses that we were using for all sorts of things. And then eventually, we had no more horses, because we had replaced them and all the different use cases of horses with some kind of mechanical equivalent. And, as it turns out, for a lot of things that humans do today, we will be able to use a computer because of what I referred to so the universality of computation, which is that a lot of the things that we do, which we may not think of as computation are, in fact, computation, right. So you know, a radiologist, for example, looking at a radiology image and determining whether or not that may contain cancer, or locating a bone fracture, these are acts of computation. And because they act of computation, it means that computers will eventually be able to do them. And the two examples that I just gave, computers are now incredibly strong at reading radiology images. And so, so many things that people are currently getting paid for. It's not clear that they can or even should get paid for. And what I mean by that is, we shouldn't keep a human in a job that a machine can do well on. Unless, and I have a specific carve out for that, unless it's the kind of what I you know, what's actually not in the current version of the books that I can add it to in real time is, it's what I think of as humans qua human. So So what do I mean by this? We've had recorded music for a long time. And yet people love going to a concert, right, it's the go to the concert to get the live performance, which is a different experience. And even if we had a great robot, for example, that could serve you dinner and would do a wonderful job at it, I think there's something about a human bringing the food to you, somebody who may have tasted the same food, who can comment. So I think there are certain rules where we will want humans because of this shared experience. But I think in all other jobs, we shouldn't strive to keep humans in them just for the sake of them having a paid job. And so I think we need to just get much more precise about never will be run out of interesting things to do. But lots and lots of things we shouldn't force humans to do, we shouldn't force humans to have to do a job in order to earn a living, when we can have machines that can do the same thing better, cheaper, faster. And so



I'm very the book is very pro automation, but it's very pro creating a system in which we all benefit widely from this automation instead of just a few people benefiting from it.

Jake 23:42

Right? So another, you know, you talked about the horses example. And, you know, whereas they were kind of they lost their usefulness or their jobs as a result of things like tractors and cars and tanks. Humans, I think you argue are gonna lose their jobs to automation and some like digital technology, basically. And that could even extend to what you kind of hinted at in the book, some sort of like Neo humans, or maybe comparable to, like, artificial general intelligence or general artificial intelligence, where, you know, it's it's somewhat indistinguishable from humans and the types of things that computers can do. I previously had Judah Milan on the podcast on his board in the early days when Laval and I've heard navall talk about how AGI is something that he doesn't foresee happening in our lifetime. So I'm curious, I don't know if you guys have ever talked about the subject, but I'm curious to hear. You know, his argument is basically he hasn't seen anything to suggest that artificial intelligence can be creative. And your argument in the book is basically, you know, creativity may be just a very complicated version of inputs and outputs, which is what computers do. And you don't really see any reason why we can't get there. So I'm curious to hear your, I guess overarching thoughts on artificial intelligence,

Albert Wenger 25:09

I would, I would start in a slightly different place, which is I think that most things that humans compute today can be automated, without ever needing any thing, even closely resembling artificial general intelligence. So, you know, again, coming back to the radiology image example, there's absolutely no need for artificial general intelligence to be able to read radiology images. And I think a lot of things that humans do today to earn a living, can be replaced by machines that don't need to have any generalized sense of intelligence, they just need to be able to do that task really, really well. And so I believe that, you know, we can have an interesting philosophical conversation, which I do towards the end of the book about artificial General, general intelligence. But I don't think it's relevant to this need to transition to the knowledge age. You know, David graeber, the late David graeber, had this great expression bullshit jobs. It's this idea that many jobs are kind of there, and the people in them are sort of basically unhappy with what they're doing. And they're kind of stuck and trapped. But society doesn't give them an out. And these are things that could or should be automated or shouldn't even exist in the first place. And so we have a lot of



that. And every time we hit an economic crisis, now, the labor market doesn't recover as much, because that's a moment in time when companies really roll out technology to make up for it. So people were sort of somewhat surprised, I think that computers weren't having more of an effect on the sort of overall employment level. But then when we hit the 2008, financial crisis, you know, a lot of investment banks and so forth, downsized. And a lot of insurance companies downsized and they really aggressively at that point started to deploy technology. Now, coming to this question of creativity, there are obviously many creative jobs. But I think base level of creativity. Again, there's sort of different levels of creativity, but base level creativity, which might be for example, coming up with a new dress pattern, or, you know, coming up with a new color scheme. These are things that we have associated with creativity. But we already know that generative networks, adversarial the train generative networks, can do a fantastic job at some of these tasks. So I do think there are higher levels of creativity, where now we're getting more into the question of artificial general intelligence. But let me give you even though the example where I just don't really think we need artificial general intelligence, which is, for instance, you know, customer support chat bots, I mean, they've made a huge amount of progress. Because generally, it's a very domain specific thing, you're dealing with a specific system, let's say, you know, your internet service provider, or your, you know, your insurance company. And so, the machine does need to be able to have a conversation with you about philosophy also, or love or God or whatever else. It just needs to be able to locate the right you know, insurance for more the answer the question, what goes into a field. And so, I think, I love the speculative part of talking about artificial general intelligence, but it's kind of somewhat disconnected from our ability to automate vast swaths of current human activity.

Jake 28:53

Yeah, even in teeing up the question, I was basically going to say, like, and then and then we'll get back to the book, because I think it's, it's a separate tangent, and it's certainly not a requirement for the type of automation that you talked about in the book. So you know,

Albert Wenger 29:08

so let me let me maybe they'll make the connection, which I think, you know, is the connection I make in the book, which is, there is an important question. It's also tied back to what we were talking about with purpose, which is asking what does it fundamentally mean to be human? Right? What makes humans human as opposed to, you know, like, right now, why is a light bulb not human? Why? Why is a fox is a very intelligent animal. Like, what is



it specific about humans and, and one of the arguments I'm making the book that was specific about humans is that we have created knowledge and have a very precise definition for that. It's basically taking something that you record so it could be a book, it could be a music album, and so forth, and another human at a different point in time, different point in space. It's intelligible to them and it is They can take that knowledge and do something with it, right? So they can, they can read the book, they can listen to the song, they can, you know, maybe remix the song and make their own song out of it. And so one part, it's not everything, but a certain distinction that we humans have is, is that we have this knowledge. And the reason why it's interesting philosophically, to think about artificial general intelligence, because if that is one of the things that makes us distinctly human, we will have machines that really will have access to the full range of human knowledge and will be able to produce it. And at that point, I think we are facing some interesting questions about how we should treat those machines. And in the book, I say, you know, it's really interesting and important for us to treat each other well. Because we need to sort of model and live what it means to be human and to treat others to be able to show solidarity with other humans. Because if and when those machines emerge that have that same level of capability with regard to knowledge, I think we would like them to see that solidarity is a value that humans value. And if they sort of want to be human, then they should also show solidarity with other humans. And it's in that sense that it's important. And that also ties to why the book is talks about the knowledge age, right, which is that is sort of the distinctly human thing. And it's also the reason why we have so much responsibility in the world, we, we're the ones who are changing the world for everybody. We're the ones who are changing the world for the foxes, not the other way around. And so we we need to take care of them not they have lost. And so there's a big section of the book that deals with this question of what does it mean to be human? What is the human purpose? And what is human responsibility as a result?

Jake 31:49

Yeah, I think it's great you use the quote from, from Spider Man that with great power comes great responsibility and talk about how, you know, like, you just said, humans, we need to start treating each other, right. And we also need to start treating, you know, animals and other species, right? Because it's not like artificial intelligence will necessarily come in with some evil plan and, you know, destroy humanity, they'll just see like, oh, humans treat cows like this. So we'll treat humans like they treat cows or something like that. Yeah.



Albert Wenger 32:19

And we would not like that.

Jake 32:21

No, not not at all. So hopefully, you know, whether it's plant based meat, or, or whatever else it might be, there's something better around the corner for cows, as well as a number of other species that are having a little bit of a tough time to support humans right now. I think, you know, you bring up the the key point in the book from my perspective, which was once you understand that, or, you know, if someone agrees with your, basically thesis that we're leaving the industrial age to the knowledge age, and, you know, the, the scarcity is no longer capital, and it's now attention, what you say is, you know, we need to leave this job loop, which we've talked about a few times now and an enter, you know, an age where people are all contributing in the knowledge loop, at least, you know, to a vastly greater degree than we are today. Can you describe the knowledge loop a little bit, and then maybe we can get into the the three key different types of freedoms that you want to kind of enable to get there.

Albert Wenger 33:20

So the knowledge loop is, is why we're surrounded with all this knowledge that we've accumulated. And it's simply this ability where you learn something, and then you use the thing that you've learned to create something new, and you share that new thing. And, and so now somebody else can learn from that thing. And, and, you know, that loop has always existed, we can use digital technology to really turbocharge that loop. So YouTube, I think, is a phenomenal case study, both in the in the internet at its best, and at its worst, all in one place. Right? So at its best, you can go on there and you can watch videos from you know, very tassimo a number file and or learn how to play the guitar or learn how to garden. I mean, there are all these things on there. And you can easily share your own insight back to others. But it's obviously also this place where, you know, that's optimizing for maximum attention, because that model is to sell ads, and how do you get maximum attention? Well, you you create algorithms that sort of optimize for, you know, engagement and engagement is often driven by emotion and emotion is often driven by outrage and by you know, or upset or, and so, without necessarily saying that, you know, Google started out to be evil, they certainly didn't. But if your model kind of brings you in a direction where you're trying to hog attention, your algorithms will optimize for, you know, in a way they'll optimize for misinformation as opposed to optimizing for, for giving people ideas. To this type of knowledge, so like it's, you know, interestingly enough, because I've watched enough number fall in other



videos, the machine now happily presents more of those to me. But I think it's very easy to get pulled down into very different corners of YouTube by the same algorithm.

Jake 35:19

So can you kind of introduce the three different freedoms, economic, informational and psychological that you think are required to free people from this job loop and enable them and arguably encourage them to join the the knowledge loop contributing and learning and creating and sharing?

Albert Wenger 35:36

So I think the the, one of the important ideas of the book is that when you have a big transition happening, you don't necessarily know I'm not suggesting that I know what the knowledge society should look like. So instead of saying, hey, let me design the knowledge society for you, which I think would be a really bad idea. Instead, the books are says, How can we give people more freedom so that they can figure out how to organize and I talked about these three freedoms, which I call economic freedom, informational freedom, and psychological freedom. And economic freedom is some form of universal basic income, it's sort of this just decoupling your ability to live from the need to have a job. And in my mind, these are relatively small amounts that are needed here, you know, maybe as little as \$1,000 a month, per adult and less for children. And this isn't about being able to live in Manhattan, necessarily, you might have to, you know, share a very small apartment with a number of other people and UBI, if you wanted to make that work, but, but this is certainly enough that you could decide, hey, I want to live in some rural area. And I just don't need to work on so I can go explore things. The reason I love this type of model is because it lets us embrace automation. And it doesn't prevent anybody from working. So you can always earn more money if you want to. But you can have many different ways of doing that. So that's economic freedom. informational freedom has to do with who controls computation. And I think this is an area where we're making a huge number of mistakes right now from a policy perspective. So we have the situation where so much of computation is controlled by just a handful of companies, Google, Amazon, apple, Facebook, on and on. The issue here is that we all have supercomputers in our pockets. I mean, a smartphone is a supercomputer, it can talk to all other of the supercomputers in the world, and also all the server computers. And yet your ability to program this phone is extremely, extremely limited. And what I mean by that is, yes, if you're programming, you can write an app and you can get the app distributed through the app store. important caveat, the app store's can take apps down any moment, they want to so there's a choke point right there. But what you can



do is you can't actually innovate on top of the apps that are already on your phone, you can't actually take the Facebook app or the Twitter app, or any of these the Amazon app and script that they are reducing you to basically on your supercomputer, you're like, like an idiot with your thumbs, you know, like trying to do stuff. When if those things were scriptable, programmable, somebody else could innovate on top of them. And so a lot of the informational freedom section is about how can we really make sure that computation, and also information isn't controlled by a few large entities and maybe the government. And then psychological freedom is about this idea that I mentioned earlier about mindfulness, it's sort of our brains didn't evolve in a world where they evolved in a world where when you saw a cat or a fox, there was a national cat or Fox, right? And now I can call the internet provide you this infinity of cat pictures. And so you know, it's very easy for these companies that are trying to hog our attention, it's very easy for them to hog our attention, because they can basically trigger these Oh, Oh, that's cute. Oh, or that's, you know, something I'm upset about, they can trigger these emotions in us very easily, and use those to hog our attention. And so, basically, psychological freedom is about basically if you had economic freedom and informational freedom, how can you actually truly be, you know, free from this onslaught of all this stuff that's around us now. And compare it a little bit too. You know, sugar, for example, right? Our bodies didn't evolve in a world that was full of sugar so we like sweet taste. We like the taste of sugar. Of course, now we can add sugar to everything and the commercial interest is in fact to add sugar. To everything so that you need more of it right. And we have the same kind of relationship to information and computation at the moment, unfortunately. And the good news is we can use mindfulness to overcome it. Now, these freedoms interact with each other in important ways that I just described, right. So like, if you have economic freedom, it makes it easier to make use of your informational freedom, because you can decide that you want to write open source software that you don't need to make money off it, that you can share knowledge more freely, which the informational freedom will then allow, and then, you know, your psychological freedom will make it so that, you know, you may be not embarrassed by, you know, sharing something that's half baked. And if the criticism comes along, instead of being upset by it, you know, even if the criticism is very harsh, or even if somebody's you know, just being obnoxious, you won't then recoil and sort of stop sharing. So these three freedoms also build upon each other. And the idea is basically, as you said, is to create this sort of ability to invent the new and people are going to take very different cracks out what the new looks like. But we got to give them that room instead of keeping them trapped in the old right now, you know, so much of politics is about trying hard as possible to patch the



industrial age, but like, intentionally keep people trapped in the industrial age, and instead of letting them figure out how this new thing, what this new thing would look like.

Jake 41:26

Yeah, it's, it's interesting, I know, you use UBI, as like the means to economic freedom that, and I think it's, you know, people certainly have like mixed reviews on what they think there. But for people who I'm not going to dive too deeply into it here, for the sake of kind of covering some some new stuff, but people can go listen to your podcast that you did with Andrew Yang, which was, which was really good. And then also, you know, better yet go and just read the book, world after capital, which we'll give the link to. But I think one thing that's been interesting for me is, like I said, I first read this book, about a year ago, it was a couple months before that, that I quit my job and investment banking after a couple years, you know, post graduation. And you know, there may be no better example of like, the job loop than banking, where you're just working as hard as you can, making as much money as you can. And, you know, some people go on the other side and consume as much as they can and get the golden handcuffs. And it's, it's the exact job loop that you kind of talk about. And I basically quit without too much of an idea of what I was gonna do next. And then this book, in large part actually inspired me to do a lot of what I'm doing now. And so part of it was realizing that, you know, fortunately, I was able to realize this, like, before reading the book that you know, from from two years saving some money from banking, I able, I basically had earned myself economic freedom. And, you know, I was fortunate to be able to do that. But that's, you know, doing for myself, to some degree, what UBI could do for everyone, you know, giving them the comfortability, even if it's not, you know, indefinitely, at least for you know, for me, it was like, for a year, a year plus, you know, and now some of my investment, I've been fortunate to do well, with crypto and things where I have a little bit of a longer timeline than I expected, but you can kind of go and actually earn that for yourself by by cutting your, your cost down quite a bit. And so UBI, like you said, it's, you know, the way that you propose it, it's \$1,000 a month, it doesn't cover, what people are you, you know, what a lot of people are comfortable with in terms of their life. And like you said, they can go out and they can get a job still, but I think maybe it'd be useful to talk a little bit about what you view as the essential human needs. Because I think it's very interesting. It's a very minimalist type of approach. And, you know, there's certain things that humans need. And we're very much confusing those with the endless list of things that we've come to want. Yeah, and recognizing that we can actually, you know, economic freedom is an amazing feeling to have that I



don't have it like indefinitely or anything like that, but even just for a temporary time, it's extremely freeing. And by cutting your costs down to basically covering the needs that you propose could be covered by UBI, you can go and kind of explore that and explore your interests.

Albert Wenger 44:12

Yeah, I think this is a super important point, right? So needs are the things that like, you have to have to survive. And so you can think of it like if I were in a spaceship by myself, like, what are the things I need, so I can survive, and they are just our, you know, bodily functions. They are a purpose, like, you could be in a spaceship, and you could be surrounded by enough food to eat and so forth. But if you were there by yourself, and you didn't know why, what mission you were on, for what reason, you'd go insane eventually and you'd stop eating. And so when I say survival, I don't mean just physiological survival. I mean, a complete survival of like, I can live my life. And I think this is important because sometimes when people look at these small amounts, and this sort of notion of meeting needs to like, who wants to live like that it's subsistence. What they don't recognize is the extraordinary freedom that it provides. Once those are taken care of the freedom to explore almost anything else, artistic endeavors, knowledge endeavors, other forms of work, you can only have the freedom to explore those once that foundation has been set. And we have, of course, confused our needs with our wants. And so you know, there's lots of things that people want, um, but they aren't, you know, they aren't necessary. And so they are, they're nice. And, and I'm not taking, I'm not taking given anybody grief of wanting something, it's just making, being clear about that distinction, in your own mind is super, super important. Because then you can serve decide, well, if I want this, is it worth it to me that in order to have it, I need to work harder, or I need to do this other thing? or, frankly, I don't actually want it. And so I'm not going to go do it. And, and you know, I give some examples. Because debates are somewhat less abstract. Because sometimes people go Well, in that case, what about, you know, skiing, Albert you you love skiing, people know that I like skiing? Um, you know, skiing is incredibly expensive. And so how can anybody you know, who would just be at this basic income, they can't afford a lift ticket they can't afford. And I'm like, that's not the only way to ski, right. In fact, people ski long before they were lifts. And the way they did it is they hiked up the mountain and they ski down. And, frankly, that's actually turns out not to be expensive. And I know people who've, basically, that's what they've been doing. And they live in, you know, in a mountain village, in a mountain region where you can do a lot of skinning, and they're there, they're not like heli ski, you know, or some other monstrously expensive way to pursue this. And so I think



there's a lot of sort of confusion about how to do things. And a lot of that has obviously been fed by tons and tons of imagery by tons and tons of advertising that sort of says, No, no, you need this, you need the big car, you need the big house, and look how happy these people are, who have the big house and look how content these people are on, you know, on this cruise, or that they're taking, you know, and trillions of dollars over the last, you know, whatever 50 plus years or 80 plus years has been spent on making everybody confused about what they actually need versus what they want. And once you for yourself, reestablish that as a mental discipline, it is extraordinary how much freedom that provides.

Jake 47:51

Yeah, I know, it's something that I've gotten accustomed to myself and like the last year, I think there's there's great joy and like you said, you know, if you love skiing, going and making a an inexpensive day for yourself, that's just as fun and maybe you actually get reward for for hiking up the mountain as well versus like taking the lift, and you start to gain an appreciation for those things. And, you know, convert from this consumer loop to a loop of actually like, how can I kind of maximize the joy or pleasure and what I do with my life, that doesn't cost money, and it's, it can maybe become, if not as hopefully at least, almost as addicting in a positive way. I think something that's, that's really interesting to me is you talk about how technology, it doesn't want anything, right. And so it opens up the space for the possible i think is, you know, along the lines of what you said, and and it's up to us to determine what becomes of that possibility. And right now, with the large social media platforms, you know, driving our attention to things that maybe it shouldn't be on, and things like that, and you know, spending all of our time in the job loop. Maybe we're not doing the the best possible things. Maybe technology hasn't driven us in the best possible directions. But really, it's us driving ourselves. And so I think there's something to be said, you mentioned like, how I think pessimism is basically like a self fulfilling prophecy as our like apocalyptic beliefs. I'm curious, you know, do you think that utopian beliefs can also be a self fulfilling prophecy that we can sort of imagine a much better future and as a result of having that imagination, then go out and sort of build it and make it come to be in a much more likely, you know, future?

Albert Wenger 49:39

Absolutely. And I think it's, it's crucial to, for us to have positive views of what can be achieved and I'm very optimistic as to what can be achieved with technology. When I say say technology growth the space of the possible the the first example I give in the book is fire right? fires the first human



technology really. And it's great, you can use it to cook. But you can also use it to burn down somebody else's village, right. So anything we've ever invented has included positive and negative use cases. And so that's what I call this space of the possible it gets enlarged by technology. And I give YouTube as a great example earlier. So sharing and watching YouTube, there are many positive use cases, and they're sort of scaled manipulation also included in this set of possible. And, and so I think it's incredibly important to come up with narratives of what are the good things that we can do, and that we might want to emphasize. And I think often they only unfold as the technology unfolds. So I think there's some people, especially today who are like, Oh, you should already know in advance that this thing is going to be bad. And clearly, there's some things that you can sort of know that this might not be a good use of this particular technology in advance. But I think as far as technology itself goes, you know, like facial recognition, for example, you know, is a technology that's super heavily debated at the moment. And my view is, it provides a set of capabilities. And those capabilities include some very positive use cases and some very negative use cases. Right? Let me give an example of a positive use case. You know, if a person is lost, for example, being able to find them will be an incredibly positive use case, right? And that might require street cameras which exist, right. And so we need to think about how can we construct a society at the end of the day where positive use cases of technology far outweigh negative use cases. And that's the challenge that we're narrative really helps. And I believe that the lack of a positive narrative, the lack of a narrative where people sort of go, Oh, that's a future. That's exciting. That's a future that I want to work towards the lack of that has given way undue power to people like Trump, and, and basically backward looking narratives where people say, No, no, no, the answer is to you know, go back to the past. And, and so, positive, utopian narratives, and I like to spell utopia utopia, when you spell with just the EU, it basically means nowhere no place, but if you spell it with an EU, eu means good. It means good place. So narratives of a good place utopian narratives, in that sense, I think, are incredibly important as providing motivation, and pointing to a future that that that's worth striving for.

Jake 52:49

Yeah, and I think that's a great place to sort of leave off. I know, you know, reading your book, like I mentioned earlier, it sort of helped me realize that I provided myself with the economic piece of freedom. And then I actually spent some time really directly because of what you said about people not knowing their purpose, realizing I couldn't answer that question for myself and sitting down and, and trying to define it. I've shared that



publicly on on podcasts in the past, but I think it enabled me to see what I really wanted to do with this freedom. And I've since gone and started, you know, first I did a blog, and now I'm doing the podcast. And it's just been really, I mean, it's been basically awesome to, to realize that without like, necessarily a technical background, or any real foundation and technology or anything like that, I've been able to do what feels like, contribute to the knowledge loop. And even more than that, the kind of optimistic technological narrative with some of the people I've been able to have on the podcast and things like that, and it's amazing what you can kind of do, if you just, you know, earn yourself the economic freedom OR, and NOT to trivialize it, but either earn it or you know, get it through UBI, which hopefully, we have it in some form sooner than later. And then kind of bet on yourself and, and follow some of the things that I think you you write about very clearly, in a great way in the book. So with that said, you know, thank you very much Albert for First of all, for writing the book and second of all, for coming on and talking with me today. I really appreciate it. And can we just end by telling people, you know, where they can go read the book, and maybe when it'll, you know, be final, if you can kind of speak to that and where they can follow you elsewhere on Twitter and things like that?

Albert Wenger 54:31

Sure. So you can find the book at worldaftercapital.org and I am still working on it. So still making some changes to it, but you can download a PDF and print that for yourself easily if you prefer to read it in hard copy. You can also follow me on twitter where I'm just Albert finger