

The Great Simplification

Nate Hagens (00:00:02):

You are listening to The Great Simplification with Nate Hagens. That's me. On this show, we try to explore and simplify what's happening with energy, the economy, the environment in our society. Together with scientists, experts, and leaders, this show is about understanding the bird's eye view of how everything fits together, where we go from here, and what we can do about it as a society and as individuals.

(00:00:33):

Today I'm joined by the chief strategy officer of the Human Rights Foundation, Alex Gladstein. This conversation is jam-packed. We just scratched the surface of these highly relevant topics, and it was still the longest podcast I've ever done. We covered topics from freedom of information, debt as a tool to uphold despotic leaders, the origin of the petro dollar, monetary colonialism, and eventually Bitcoin. Alex also serves as the vice president for strategy of the Oslo Freedom Forum and has connected hundreds of global dissidents and civil society groups with business leaders, technologists, philanthropists, journalists, and artists, with the objective of promoting free and open societies. I learned quite a lot on this podcast on things that I kind of thought I knew, especially from the perspective of the Global South, geopolitics, and the monetary, not resource, prosperity of the West. I expect Alex to be back in this program. We have a lot to talk about. I hope you can listen to this. It's long. Listen to it in pieces. It's jam-packed. Please welcome Alex Gladstein. Alex Gladstein, good to see you.

Alex Gladstein (00:02:05):

Great to see you. Excited.

Nate Hagens (00:02:07):

I've seen you before, but I didn't know who you were at the time.

Alex Gladstein (00:02:12):

Briefly, I was happy to come down for one of your lectures at Stanford. I live in the area, and I was excited to see someone whose work inspired me and made me think. So thanks for the work you do.

Nate Hagens (00:02:23):

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Well, thank you for the work you do, which I have learned a little bit about, and that's going to be what we discuss today. I think we have a lot to cover. This may not be a biology Tim Ferriss eight-hour podcast, but it might be a long one. I hope to cover human rights, which is your main expertise, monetary privilege, which is a new concept to me, even though now that I've read and thought about it makes total sense, and ultimately Bitcoin and how that relates to those other two topics. So maybe we just start with your background. What is it that you do, Alex? And how did you arrive at this place?

Alex Gladstein (00:03:08):

Yeah, so for 15 years, since 2007, I've worked for the Human Rights Foundation, which is a nonprofit based in New York, founded by former political prisoners and people whose families were imprisoned for their ideas from around the world. The organization was founded with a mandate to focus on authoritarian regimes. So by our standards, that's about 4.3 billion people in today's world in 95 countries, who don't have the same kind of checks on government power that we might have in the United States or Japan or Germany.

Nate Hagens (00:03:40):

So that's half the countries in the world and half the population, plus or minus.

Alex Gladstein (00:03:44):

53% of the world's population lives in a place that doesn't have free speech, property rights, the ability to have free and fair elections, et cetera. Yeah, so the point being that I did a lot of things through my career. I started as, essentially, a student with an internship. My first summer job was to help get outside information to the Cuban Underground Library Movement, before they had internet and Cuba. So I helped my Latin American colleagues, who were able to freely travel there, bring all kinds of outside movies and information in. And people would go in their homes and share them. It was extremely kind of Soviet vibes, but it made a big difference actually, before the regime finally sort of crumbled and acknowledged that they'd have to bring an internet. So that was my first experience with a job.

Nate Hagens (00:04:34):

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This is a real naive question. And I may be interrupting you, because I don't know a lot about this and I should. But in those authoritarian countries, do they have access to YouTube videos?

Alex Gladstein (00:04:47):

Well, this was back in 2007, when the Cuban people didn't have internet. The only way you could get internet really was by going to a Western embassy. And it was like tightly monitored, expensive. These days, most people have internet access in some way, shape, or form, or they can go somewhere with internet access. But the point being that through my career, I did a lot of work with people who had a lot of problems accessing information, due to their government. I spent a lot of time on our North Korea program, which helps refugees, who've escaped from North Korea, send information back in. That country is still probably the most closed off society in the world, and people have been using information technology to bridge that gap for 20 years now, first with DVDs, then with SB sticks, now with smartphones and SD cards, and even some sort of satellite-type internet. And I think with the rise of Starlink, you're looking at a decade here, where eventually the internet kind of saturates almost everybody on the planet.

Nate Hagens (00:05:49):

And I want to let you get back to answering my question on what you're doing and what the Human Rights Foundation is, but how central is information to people's lives? I mean, you take it for granted that we can access the collective information of the history of our species on Google here in the United States but in these authoritarian countries, et cetera, how important is it to access information for people in their everyday lives?

Alex Gladstein (00:06:19):

Well, I think for all the work that we do, whether we are in business, in energy, in environment, working for labor rights, just building communities, access to information is essential. Not only is it essential to prevent disaster and social, basically, deterioration, Amartya Sen wrote about this, how lack of information can cause famine, right? That's something he won awards, for his work on this, and I think it's quite true. He was looking at famines, basically in India and in China. And at the end of the day, it's much more difficult to have a famine or to have a collapse in food

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supply in an open society, where people can share information and aren't living in fear. There's the famous sort of town square test. Can you go to your town square and just criticize the government without fear? So that's the difference between a fear society and a free society.

(00:07:13):

So this was kind of the environment that I, let's say, grew up in, working in this environment, meeting dissidents from around the world who didn't have the same privileges I did. Information and technology was a really important part of that, but so were just basic-basic concepts, basic civil liberty stuff, again, free speech, property rights, freedom to believe in what you want to believe in, freedom to associate, and freedom from torture and from arbitrary detainment. So these kind of really basic civil liberties are things that everybody strives for. I found that out by meeting people in every possible society, culture. It is not a western thing to not want to be tortured or to want to speak your mind. These are universal constructs. I think there's nuance to that, but at the root, it's entirely true. And I've spent my career looking at how technology impacts that, can help that or can hinder that.

Nate Hagens (00:08:10):

When you were much younger, like high school or early college, were you aspiring to be a business major or a systems biologist or something? Or did you have an experience as a young man that made the things you're talking about now very important and passionate to you?

Alex Gladstein (00:08:31):

Yeah, I was really interested in math and physics. I went to school for engineering actually. But the big events in my life that shaped me were... I was kind of like the 9/11 generation, so I lived nearby New York City. 9/11 happened when I was 10th grade, had a big impact on me. The Iraq War had a huge impact on me. I was junior, senior in high school watching that whole debate unfold. And then going to college in the '04 to '08 period of time, during the early years of the Iraq War, when the protests were really alive during the surge, all of that, that really colored my view and made me move into looking at international relations, and away from engineering. I just thought it was very important. And I got fortunate enough to get an internship at the Human Rights Foundation in 2007.

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(00:09:19):

So I had a job going into the great financial crisis, which was really nice. And I stayed there. I had opportunities to pursue scholarship, but I decided to stay, and I think that was a great decision. I totally respect scholarship, but, obviously, it's a very inward looking thing for many years at the beginning of your career at least. And I feel like I've had an opportunity to just learn from so many people through the work we do. Beyond programs at HRF that are direct support for people under authoritarian regimes, we do a lot of gatherings. So we have this thing called the Oslo Freedom Forum. This is the 15th anniversary of it, actually, this year in June in Norway. And it brings together activists and dissidents and puts them on stage and has all the influential people in the audience.

(00:10:05):

So we try to flip the Davos model. In Davos, it's like the powerful people are on stage, and the activists are prevented from accessing, and they're protesting outside in the freezing weather. That's normally how it goes. So we were like, "Let's actually flip that. Let's put the dissidents and troublemakers on the stage. And let's have the billionaires and the philanthropists and the influencers sit in the audience and listen." So that's kind of the goal we've had. And it's similar to the Human Rights Foundation. It's always had this focus on dictatorship and on how can we just help people expand their own freedom. I mean, the main thing that I learned in the Iraq War generation is that freedom cannot be imposed. It should not be imposed. It has to come from within. And that's all these folks that we work for are asking for.

(00:10:49):

I mean, I have a really, really good friend. His name is Vladimir Kara-Murza. He's a really famous Russian activist. He just received a sentence this week of 25 years in prison. He was outside of Russia. He went back into Russia to protest against Putin's war, and now he's going to be in prison for decades. He'll be another Solzhenitsyn. I really do think so. The guy's so eloquent and powerful and brave. What he always would say is that he said, "Russians will bring democracy to Russia. Stay out of it. But the least you can do is stop treating Putin like a legitimate world leader." That that's what his advice was to us, like, "Stop having dinners with him at the White House. And stop treating him and his cronies like anybody else." So he was sort of calling for us to just stop helping. But I think the activist community I've met has taught me very

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deeply that, again, this freedom-democracy stuff, it can't be imposed. It's got to be grassroots. And I've just seen evidence of that over and over and over again.

(00:11:47):

That's another thing that's driven my interest in technology and open source code, especially, is that communities form around this stuff everywhere in the darkest places in the world. And we can help without being whatever, imperialistic about it, we can just contribute to what they're doing and help them on their own terms. And that's kind of the philosophy that I think HRF's had and that I've had.

Nate Hagens (00:12:10):

I have so many questions. So you started as an intern, and now in 2023, you are the chief strategy officer for Human Rights Foundation, at a time when in the global poly-crisis, with energy depletion, with climate change, with a big geopolitical war, with dollar hegemony at risk, with all these other things, human rights are about to be a major issue in coming years and decades. So how do you even strategize as a chief of strategy for such an organization with such a large potential quiver of arrows of needs?

Alex Gladstein (00:12:55):

Yeah. So we have my day job, and then we have my personal interests. So what's important to understand about the day job and the Human Rights Foundation is that human rights is an industry, and it has a certain amount of funding. And nearly all that funding comes from the West. It comes from Europe and the United States, mainly the US. So the grants that are given out globally for human rights work come from a small group of people, who are pretty homogenous. I understand this: that they like to invest in their own backyard, which makes sense. If you're American, you want to see an improvement of human rights in the United States. If you're in France, you want to see an improvement of human rights in France. I have no issue with this. But the outcome of this is that something like 90% of all the money spent on human rights work in the world gets spent in the West.

(00:13:43):

So you have this self-enforcing kind of feedback loop happening. Where if you are like a Chinese dissident or a group working in China, there's no money for you. You have no money. I mean, maybe you get five, ten thousand dollars here or there, but you're

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scraping by. And I mean, if you're in a lesser known dictatorship, forget about it. Laos, you're living in Madagascar, you're living in Togo, there's just so little funding or resources for your struggle. So that's why we do what we do is we find that people, who live in authoritarian regimes just have less resources. It's not necessarily a moral statement about democracies being better. I've seen democratic governments do the worst things. I mean, the invasion of Iraq is a great example. It's more about the architecture. As an American, I can start an organization. I can donate to the EFF. I can sue the US government. We can hold our leaders accountable, relatively speaking. There's 80,000 nonprofits in the United States. We can leak stuff. We can change the course of history. Now, of course, that gets tested. Look at WikiLeaks. But the point is, it's possible. You live in Saudi Arabia, no. Starting in a human rights group is illegal. In some cases you can, quite literally, get your head cut off. So I think this is the key distinction that I try to walk is understanding, A, how fortunate I am, but, B, how much more we can improve as democracies. And the money piece really woke up my senses to the latter, how exploitative we've actually been globally and how much we are responsible for a lot of these dictators. I didn't quite understand that until I learned about the global monetary system.

Nate Hagens (00:15:25):

So let's move on to that. You wrote a book called Check Your Financial Privilege from last year. And in your book you begin by stating that anyone born into a country with a reserve currency, like the euro, the yen, the pound, or the dollar has a financial privilege relative to 90% of the world population born into weaker systems. Can you expand on that and carry on with what you were just saying?

Alex Gladstein (00:15:56):

We often hear about "check your privilege," and it's in a variety of contexts. I think that people need to check their financial privilege. That's the point of the book. What I realized, as I checked my own privilege as I learned about it, is that very few people on Earth have the benefits we have, that's speaking as I guess two Americans here. About a billion people live in a liberal democracy that has property rights and a reserve currency, meaning that their governments can essentially print money to buy things abroad, like oil or industrial materials, et cetera. And that allows them to have cushy kind of social programs. This is one aspect. Obviously, we'll get, I'm sure at some point, into how this ties into fossils and access to fossils as well. But the point is that

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only about a billion people live in societies where their government has a currency that's strong enough where they can literally just print it and buy stuff.

(00:16:56):

Now, the US is the obviously key example of this, the biggest example. We live in the world's first debt empire. Never before has there been a world empire that's been a debtor empire. Every other empire before the US was a creditor empire. It owned stuff. It had a lot of assets. The United States' biggest export is debt. And it's just unique. We've never seen this before. And it definitely coincides with the transition of the global monetary system from being tied onto gold, something that's in the physical world, something that's scarce, to not being tied in gold anymore, to being tied to what we call fiat money, which is issued by decree. So you can kind of see this map out, and this is what I spend a lot of time looking at. But the point being that in this day and age, there are a handful of nations that can sort of print these claims and buy things, like oil, and then everybody else can't.

(00:17:56):

So you have the other whatever, six, seven billion people, and we're talking pre-2022 here, pre the Putin invasion of Ukraine, which we'll get to, which has changed a lot of things I think, and set a lot of things in motion. But when you had Bretton Woods and Bretton Woods II, kind of these systems, we were very fortunate, and this allowed our countries to basically subsidize a lot of things in our societies. Think about the financial technology that we have. It's just so easy for most Americans and Europeans to send money to each other, to spend money abroad, to use dollars in Africa or Latin America -- people are happy to take them -- to access capital markets, to invest in stocks, to hedge with all kinds of things. The vast majority of the world's population has no access to that. Their local fiat currency sucks. The they're best bet of a savings technology is usually sheet metal or cattle. I'm talking for the majority of the world's population. They can't teleport money to anybody on Earth on demand, and they live a very different life. And I think that I just didn't really quite grasp that, until I took a look at it more closely.

Nate Hagens (00:19:00):

So there's really two layers here of financial privilege. One is the salaries and GDP per capita and income that is the product of living in the global West on the backs of energy surplus. There's the actual wealth and income inequality issue. But the second is

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in parallel, living in a country that has its own reserve currency, which makes access and commerce and money moving and all those things seamless and easy, and we take it for granted.

Alex Gladstein (00:19:41):

Yeah. And again, the US and the EU, until recently, had done a pretty good job on inflation for a long time. And people can't really remember... I mean, you have to go back to the '70s, obviously, right? I'm sure your listeners commiserate. I mean, it's unprecedented what we're seeing now. Two years ago, tons of people were telling me, "Ah, high inflation's impossible in Western society." This is literally what I think the economic orthodoxy thought. And guess what? They weren't humble enough. They didn't understand that it could happen here too. And I think it has happened here too, and I think our financial privileges is temporary. It comes in waves. And by looking at what happened in the '70s, I think we can learn a lot.

(00:20:25):

One thing that I thought was fascinating, taking a page from leftist scholars and Marxist scholars, is that there's a lot of things you can say about just briefly going back to Great Depression and why the Western world had this huge economic crisis. And obviously, there's a debate between the Keynesians and the Austrians about, "Well, is it because we left the gold standard or did we not leave it soon enough?," et cetera, et cetera. Right? There's a third argument though, advanced by the authors of this book called *Capital and Imperialism*, which is a terrific book. I don't necessarily agree with the conclusions, but it's a really, really interesting read on history. And they quite simply argue that a lot of the crisis that the Western world faced at the end of the '20s and '30s was because the British Empire was collapsing. And you had the center of the Western financial system lose access to cheap labor and goods that it had been accustomed to having for hundreds-plus years. This just makes so much sense to me. So that's like step one.

(00:21:23):

Step two is when the access to fossils themselves, you had decolonization there. So you had oil access, which was traditionally managed by Western powers, at least for several decades, when oil first became a thing, Western companies, seven sisters, all that. And then you had the OPEC nations actually take control. You had the power shift. And guess what? That led to massive inflation in the West. So when we couldn't

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exploit the oil, the energy, for cheaper than the market value any longer, we lost the ability to subsidize our nations and to subsidize our currencies. So I think this starts to map. You start to see this happen. Every time the West pulls back from power over the rest of the world, we have economic crises. And this is so obvious in the '70s to me. Literally, right as OPEC starts to come into its own, they decide to raise the price of oil. The US goes into an inflationary spiral. Nixon has to go off the gold standard. It set everything else in motion.

(00:22:28):

So I've been fascinated by looking at this and also by looking at the reverse. What the US does impacts everybody else. So we hear a lot about the Fed mandate. The Fed has a mandate, low employment, to keep inflation in check, these things. What people don't realize is what's not in the Fed's mandate is the livelihood of everybody else in the world. So both in the early '80s and last year, when the Fed raised interest rates really fast, politically to quell a domestic issue at home... In both cases we had inflation out of control. So the Fed says, "Okay, we're going to jack interest rates really fast." This absolutely crushes the Global South, absolutely crushes. So in the '80s, you had the Third World debt crisis, which caused the suffering of tens of millions of people, uncountable number of deaths from starvation, lack of nutrition, et cetera, child malnutrition.

(00:23:23):

And now you're seeing it again. In the last 18 months, you're seeing both economic and political collapse all across the Global South, currencies collapsing, the IMF having to come in and bail out countries, governments being toppled. So I think what I've been really interested in is looking at both how economic stability and our comfort and our quality of life, or way of life, in the West, it relies on resources elsewhere, and then also looking at how our decisions about how to retain stability and comfort and reduce inflation for the average person hurts other people. So it's this really interesting back and forth that I've been trying to trace out.

Nate Hagens (00:24:08):

So there's a parallel to climate change in the environmental movement is we don't include the prices of externalities in the price of our things. So we privatize the gains, and the losses are held by the commons and the environment. It's the same thing in the US is we're taking the gains from having the global reserve currency, the

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seigniorage from the US dollar being the reserve currency, and the benefits of spending more than we have, so we get all the stuff delivered to the United States, but not the responsibility of the financial impact of our monetary decisions on the rest of the world. Right?

Alex Gladstein (00:24:49):

Well, I mean, people say it very simply, "We export inflation." And the authors of *Capital and Imperialism* said something really clear and distinct to me, which makes a lot of sense. Old school imperialism or colonialism had kind of a one main goal, and that was to reduce economic instability and inflation inside our societies, by causing wage deflation in the periphery and by taking cheap goods in labor from those places and inputting them into our societies. So with super cheap goods in labor, and by pressing down on the wages elsewhere, we could raise up the quality of life and make it less likely that there would be mass protests and overthrow of governments in the West. And that has been sustained, since the age of colonialism, through the international monetary system.

Nate Hagens (00:25:36):

Is that a byproduct of our decisions? Or is that a tacit goal of the decisions?

Alex Gladstein (00:25:42):

It's a really good question. It could be one of these path dependency things. I highly doubt that, again, somebody was in a room and they mapped all this out. But it is an outcome of the system and something we don't speak about. And it hardly matters to the victims. That's kind of the point. Yeah, if you're a victim of a structural adjustment policy in the 1980s somewhere in Latin America, does it matter to you whether the West intentionally did it or whether it was a byproduct of their way of life? I don't think it matters, right?

Nate Hagens (00:26:15):

So can you explain the mechanics of why a sharp sudden increase in interest rates by the Federal Reserve in the United States, who's focusing on domestic inflation, domestic issues, causes a financial crisis abroad? Is this because foreign countries have to use the dollar, and they denominate their debt in dollars, and so all of a sudden what they owe suddenly spikes in amount?

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Alex Gladstein (00:26:46):

Yeah. So I'll try to just briefly outline two phenomena which lead to this, and then I'll explain why the rise in rates hurts people. Basically, you have Bretton Woods. You have World War II. You have the US and the allies getting together in New Hampshire and a hotel to figure out what the international monetary system's going to look like. They wanted an international system. Keynes wanted the bancor. This was going to be an internationally managed currency with kind of percentage-based participation from all the world nations. Sounds very kumbaya, and obviously it didn't happen, because the US had the most gold, because we didn't get wrecked in World War. And in the '20s we had a inflow of gold from all these other countries. So because we had the most gold, and gold was the ultimate monetary good, we got to make the rules.

(00:27:41):

So we said, "No, no bancor. Everybody's going to use the dollar, redeemable at \$35 per ounce of gold," meaning other central banks would collect dollar claims, and then they could redeem them for gold at \$35 per ounce of gold. Now, bear in mind, the US government had already made it illegal to hold gold inside the United States. This is what FDR did in the early '30s, in order to fund the New Deal, was to confiscate the gold from all of America. That's how he paid for it. It's something that I think a lot of people have a political affinity for on the left, because they like FDR. But if this happened today in any dictatorship, we'd be screaming about it. I mean he literally took away good money from people and replaced it with paper. It's kind of an outrage, and it's amazing it doesn't get more discussion these days.

Nate Hagens (00:28:30):

Was that widespread or just sporadic around? I mean, I'm sure there would be gold hidden somewhere that no one knew about.

Alex Gladstein (00:28:39):

Right.

Nate Hagens (00:28:39):

Was it a really widespread around the nation that happened?

Alex Gladstein (00:28:43):

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I mean, Executive Order 6102, you can go look it up. It mainly did not involve jackbooted thugs at people's houses, because all the gold was usually kept at banks and centralized institutions. So the government was able to confiscate the gold. The treasury was able to confiscate the gold of the Fed, by the way. So they took all the Fed's gold, and they replaced it with claims. And then they also rounded up all the gold in regional banks, companies, et cetera. Americans couldn't own gold again until the '70s, until I think '75.

Nate Hagens (00:29:15):

It was illegal to own gold? It was illegal to own gold. Absolutely. Look it up. Executive order 6102. So first thing the American government did was take away the ability for the people to escape inflation. This is called financial repression. So this is how they funded all their programs from the '70s to the '70s was in many ways having the, basically, inflation rate above the interest rate. So if you're owning US debt, you're negative. You're not making money; you're losing money. This is called financial oppression. This is what's happening right now, when you have whatever. When you have 7% CPI, and the Fed funds rates at like 5% or whatever, you get my drift, right? You're losing some money there. So this was like par for the course for 40 years. And the American government, first they took away the ability for the American people to hedge against that. And then, in 1971, they took away the ability of the world to hedge against that. So between '44 and '71, you had Bretton Woods One, which was all these other central banks used dollars on the premise that they could redeem them for gold. Now, what happened in the sixties is that after JFK was assassinated, you had a huge increase in American fiscal spending on both the Vietnam War and the Great Society stuff, so you had guns and butter.

(00:30:35):

So by the late sixties, all these other governments were like, "America can't actually back this up." And the gold was dwindling. It was crazy how much our gold reserves actually reduced, to the point where in the summer of '71, the French sent a battleship to New York City to redeem their gold, de Gaulle did this. And his administrations and his successors, they did this. They sent a battleship to New York City. And the British also tried to claim several billion dollars of gold, and this triggered Nixon to meet with his advisors that August and go on television and deliver what's known as the Nixon

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shock, and basically tell the world, "Hey, sorry. All those claims that we said we would redeem for gold, not going to do that anymore."

(00:31:20):

So we rug-pulled the whole world, and all of a sudden all these governments around the world had given their gold to us or to someone else, and they had gotten these little pieces of paper, and then those papers were no longer back by dollars. And what happened was between '71 and '75, the dollar devalued against the German Mark by 50%. So the dollar started to go into free fall, basically. We had huge inflation in the United States. And like I said before, this was really exacerbated by our losing control over energy production. I think these are extremely tied together.

Nate Hagens (00:31:50):

So when did the petrodollar... was born?

Alex Gladstein (00:31:54):

Yeah. So basically, Nixon and Kissinger created the petrodollar, not Washington and Adams. Our founders were extremely skeptical of centralized monetary systems. But these guys were total opportunists, right? They could care less about the external costs. Nixon famously was saying, in the Watergate leaks, there's something where he says, "I don't give a shit about the lira." They were ask him about Italy, and he was like, "I don't care about them." So these guys had no empathy for even our allies at the time. And what they realized is in order to fund Vietnam and the Great Society stuff without getting massive protests in the street, they needed to find a way for someone to start buying American debt, like in large quantities. So they hired a guy named William Simon off Wall Street. He worked at Salomon Brothers, he sold bonds. This was his job to sell debt. So they hired William Simon to be Treasury Secretary.

Nate Hagens (00:32:53):

That's what I did. I sold bonds at Salomon Brothers, but go on.

Alex Gladstein (00:32:56):

Great. So if you'd go back in time, it might have been you. So they hired him off Wall Street to run the government's bond sales program. Okay? So what do you do when you're like, "Oh man, we've got to sell our debt"? You find someone who's got the most

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money in the world. And who had the most money in the world in 1973? Saudi Arabia. The amount of money, of capital, the capital count in OPEC because of the rise of the price of oil in dollar terms from whatever it was, \$2 to \$12, was so astronomical, the Saudis and OPEC, they didn't know what to do with all this money. They couldn't possibly invest it internally.

(00:33:29):

So we sent, despite the war, despite us being back and forth and on different sides with regard to Israel, we sent Simon out there. He went to Jeddah. Then the Crown Prince came to D.C. later in '74, and then Nixon went to Saudi Arabia and met the king and all this. This is all in the history books. None of this is speculation, this is all... You go back, you look at New York Times articles. And what we came to an agreement was, was called the Petrodollar Pact, and there's four elements to the Petrodollar Pact. Number one, the Saudis would price oil in dollars and enforce the rest of OPEC pricing oil in dollars, meaning-

Nate Hagens (00:34:08):

So before that point, what was it priced in?

Alex Gladstein (00:34:12):

Sure. Before that point, obviously, dollars were dominant because we had the largest economy and dollars are flowing around everywhere. It was dollar diplomacy, right? But it wasn't... You could do a deal with OPEC to use your fiat currency to buy oil. This was possible.

Nate Hagens (00:34:35):

Okay.

Alex Gladstein (00:34:36):

Now-

Nate Hagens (00:34:37):

Keep going.

Alex Gladstein (00:34:38):

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Yeah, sure. So when this was enforced, it just has so many network effects. Basically, it really crowds out everything else, and it really makes the dollar... It increases demand for the dollar, obviously, if you have to find dollars to pay. If Malawi needs oil, they can no longer print their own currency or use the currency of a local African nation. They have to get dollars. Well, how does Malawi get dollars? They can't print them. They have to export stuff to the United States or to an ally, which means that we can control their society. We can tell them what we want, and we can change their internal structure, and we can force them to make stuff we want. This is how all of US agricultural policy has gone, actually. It's gone hand-in-hand with energy policy. So these countries now have to earn dollars. Instead of serving their own needs and becoming sovereign and productive, they have to pay debt back in dollars.

(00:35:28):

Now, just as an aside, at the same time the petrodollar is coming into existence, the IMF and World Bank are really surging into the scene in the Global South, and all this debt that's flowing in, in the 70s is dollar-denominated. So keep that in mind for later. So you're getting this massive amount of dollar-denominated debt going into the Global South. A lot of it is from these earnings. So to stay on the petrodollar, number one is that the Saudis and OPEC mandate that, "You can only pay us in dollars to buy oil." And number two is what's called petrodollar recycling. We're going to recycle the dollar profits back into US debt. And that was done in some ways through the Eurodollar system, which I'll explain in a second.

(00:36:12):

But basically, you had these two elements on the Saudi side. On the American side, what we agreed to do was sell them weapons at a lower than market rate and protect them. So that was the Petrodollar Pact. And that's colored all of our relationship with Saudi Arabia ever since, including up till today, where it seems to be unraveling. And I can get into that. So you have-

Nate Hagens (00:36:32):

Well, not only our relationship with Saudi Arabia, but the entire global economic system, it's colored that for the last 50 years.

Alex Gladstein (00:36:40):

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Totally. Yeah. Yeah. And what I'll just point out is that I think the petrodollar is really important, especially in the 70s. The dollar was collapsing. And you look at pre-petrodollar, the British pound still accounted for a sizeable amount of petroleum trade; after, it basically went to zero. So it is definitely a transitional moment. And I think that... Yeah, go ahead.

Nate Hagens (00:37:05):

Well, I was just going to say, you know what else happened in 1970, '71?

Alex Gladstein (00:37:10):

Mm-hmm.

Nate Hagens (00:37:11):

US non-shale oil peaked, growth in global oil production hit its all-time production growth. It was growing at 7% or 8% a year there. 1971 was the all-time peak of that growth rate.

Alex Gladstein (00:37:29):

Yeah.

Nate Hagens (00:37:30):

1971 was in the Genuine Progress Indicator, which is a measure of GDP that subtracts out the bads. That's when that peaked. And Richard Nixon also did something positive here, was 1970 was the first Earth Day. But sorry to interrupt you. Keep going, Alex.

Alex Gladstein (00:37:48):

No, no. It's fine. And we're going to stay on this. So we just described the petrodollar system. Now that's a political system. That is not a free market outcome. That was a political negotiation. And Greenspan, who was in the Ford administration kind of as this thing was being fleshed out through the 70s, he's on record saying that it was not a market decision.

(00:38:13):

However, at the same time, you have the Eurodollar system, which is worth describing briefly. So back in the 50s, the Soviet allies in Europe, they didn't want to have their

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savings in rubles, for obvious reasons. That's a weak currency. They wanted dollars, so they basically were able to create dollar contracts at banks outside the purview of the US government. These are called Eurodollars, so they're just dollars that are outside the US banking system. So these started to spread, and they were created entirely without permission or authority of the US government. This is a free market phenomenon, globally free market is what I mean. And by the 60s, 70s, they start to increase in size. There's more and more and more Eurodollars.

(00:38:56):

So you have to know that there's two things happening here. One is a free market interest in having the dollar. Okay? But the other one is a political design. They're both important. It's impossible to say which one's more important, but let's just consider they're both key for what we're about to get to.

(00:39:12):

So what ends up happening is the Saudis, OPEC, they have this incredible amount of money. They invest it back into the US banking system, the US banking system, and the Eurodollar system they have in Europe. They have all these dollars, so they do dollar-denominated debt to the Global South. This is in the late 70s, an astonishing amount. You basically had a late 1920s kind of bubble in sovereign debt sales to the Global South. So you had little banks in the Midwest of the United States lending to Angola, stuff like that. It was completely crazy. So there was a huge bubble.

Nate Hagens (00:39:48):

So if you're a farmer or a small business person in Angola, and you have an idea and you need funding for it, just to use your example.

Alex Gladstein (00:39:57):

No. Yeah.

Nate Hagens (00:39:57):

You would eventually get a \$1 million loan from some bank in Illinois. And you would be in your own country with your customers paying the Angola currency, but you would have to pay your debt back, your interest and eventually your principle, in US dollars.

Alex Gladstein (00:40:14):

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I wish it was that balanced. What was actually happening is that the farmers in Iowa were depositing their money and building up a banking system in the Midwest that was then making loans to a government, a corrupt government in Angola, which was not sharing any money with Angolan farmers, which was buying weapons, stocking up the police force, paying interest off debt to the IMF. Very, very little of this money actually made it to the people, unfortunately. But it was a massive bubble, incredible, incredible amounts of money, 200-300% growth from '78 to like '81, '82.

(00:40:52):

And then, what happens? The age of cheap credit ends, right? So you have all of this dollar-denominated debt in all these countries that can't print dollars, so they need dollars to get oil and often food, commodities, things like that. They also need dollars to pay back their debt. Right? Now we get back to the rise in interest rates.

(00:41:14):

So Volcker now raises rates. Now they were high, they were 6%, 7%, 8% or whatever they were, 9%, 10%. He raises them almost to 20%. So all of a sudden, the cost of capital globally skyrockets. It becomes extremely difficult for all these countries to pay their debts back. It becomes extremely difficult to afford everything. There's massive price inflation in the Global South, and what happens is-

Nate Hagens (00:41:38):

Can I ask a quick question?

Alex Gladstein (00:41:40):

Yeah, yeah.

Nate Hagens (00:41:41):

So preceding those days, if you borrowed money in US dollars, the Angolan government, presumably it was a 10-year loan or something that had a fixed rate.

Alex Gladstein (00:41:53):

Mm-hmm.

Nate Hagens (00:41:53):

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So why would rates going from 7% to 20% affect the previous borrowings at a fixed lower rate?

Alex Gladstein (00:42:00):

No. It is not like a US 30-year fixed rate. No, no, no, no.

Nate Hagens (00:42:03):

Oh, okay.

Alex Gladstein (00:42:04):

These rates are adjustable.

Nate Hagens (00:42:06):

Got it.

Alex Gladstein (00:42:07):

And they would get renegotiated through something called the Paris Club, which folks should look up. But basically, just to be very brief, we can get into details later, but World Bank loans are very long, 10, 20, 30 years, and they often get readjusted through the Paris Club. The IMF loans were supposed to be short-term, and they were supposed to be fixed. But again, what happens is that you have a two-year IMF loan for whatever amount of money, and you're Mobutu in Zaire, let's say, horrible human rights abuser. You're getting bailed out by the IMF for unfortunate reasons. Then you run out of money and the IMF says, "Well, are you going to pay us?" And you're Mobutu and you say, "No." And what ends up happening is that they say, "Fine. We'll give you another loan."

(00:42:46):

And what's happening here is that... And what happens in the 80s when Mexico becomes the first country to declare bankruptcy and basically start the Third World Debt Crisis. When the United States and the West bailed out Mexico, we weren't bailing them out because of empathy for Mexican people; or we weren't bailing Mobutu out because of empathy for Zaireans. We're bailing these countries out to save our own banks.

(00:43:14):

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So what happened is our Western banks got so overleveraged on debt to these nations that if those countries collapsed, we'd have a 1930s financial crisis. So that's why in the 80s and then again in the 90s and '94 with the Peso Crisis, '97, '98 with the Asian Financial Crisis, the European Crisis, 2010, '11, '12, every time another part of the world is about to collapse, we can't have that, because that would mean that our banks have to write assets down. They don't want to do that. They would rather extend more debt. That's always been the solution. So that's why there's been an exponential rise in Global South debt since the early 70s.

Nate Hagens (00:43:52):

So I knew this, Alex.

Alex Gladstein (00:43:55):

Yeah.

Nate Hagens (00:43:56):

But I didn't know this. My girlfriend and I are watching, for the first time, actually, the Sopranos right now. And boy, it sure sounds like there's a lot of parallels in the story you're telling.

Alex Gladstein (00:44:10):

It's a fantastic show. Yeah, no. So basically, but Volcker's not mean. I don't think... He doesn't want these people to suffer. It's just not part of his... He's not thinking about it.

Nate Hagens (00:44:17):

Right.

Alex Gladstein (00:44:18):

Does Powell know about the fact that Sri Lanka is collapsing in part because of US financial policy? I don't know.

Nate Hagens (00:44:24):

Well, does Powell or Yellen or Bernanke know about the carbon footprint of quantitative easing? No, that's a byproduct.

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Alex Gladstein (00:44:32):

It's not in their mandate, right?

Nate Hagens (00:44:33):

Yeah.

Alex Gladstein (00:44:33):

So the point being that these interest rate hikes really harm a lot of people abroad, because not only do they create massive price inflation. Just to give you an example, the FT does a good job covering what's happening in Egypt right now. Classic case reads like the 1980s, the average Egyptian is paying more and more money for bread, astronomically more than they were a couple years ago. Meanwhile, the government's getting bailed out by the billions by the IMF. Now what's the government going to spend that money on? The military, so it can keep itself in power. This has just been the case forever.

(00:45:08):

And what ended up happening in the 80s, and what I fear is happening now in a lot of the developing world, is that, you move money out of the equation. The number of hours you have to work to get a thousand grams of protein or rice is actually increasing. So we would think that with technological deflation and with the innovation of humans and all these advances in sterilization, refrigeration, healthcare, all these things, you would've thought that in the 70s and 80s, between 1970 and 1990, that people all around the world would've had to work less for the same amount of meat or rice.

(00:45:43):

Now, that's certainly true in the West. And the increases in efficiency were crazy, subsidized in large part because of fossil fuels. But in these other parts of the world where fossils were more scarce and where there wasn't as much access to that sort of thing, and they were getting squeezed by IMF structural adjustment policies, squeezed by the rising cost of capital by the US government, the amount of hours you had to work to get a thousand grams of rice in Peru, for example, or beef in some cases doubled over a 15 to 20 year period of time. So this is what I mean when I say wage deflation.

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Nate Hagens (00:46:18):

Is this also what you mean when you use the term monetary colonialism?

Alex Gladstein (00:46:24):

That's a very specific brand of this. What I'm describing is the general relationship between Western powers and we'll call it the developing world or the Third World or the Global South, whatever you want to use. But basically, you have the West and you have the developing world, and the relationship for hundreds of years has been somewhat similar. First it was naked imperialism, and then now it's more of a financial repression story.

(00:46:49):

There are unique and specific instances of what I would refer to as monetary colonialism that are good examples of this. And the most obvious case is found in West Africa and Central Africa. So for example, the French used to have straight up imperialism over a massive amount of the Global South, including a huge chunk of Africa. So in the 50s and 60s, they were forced to decolonize. They didn't want to. They fought a unbelievably horrific war in Algeria because they really wanted that gas there.

(00:47:20):

They ultimately had to leave, but they really didn't want to give up claims over these 15 countries in West and Central Africa, from Senegal to Togo to Mali, Central African Republic, for a couple different reasons. One was cultural and linguistic; they wanted to keep spreading the French language and culture. And one was resource-based; they wanted the uranium that was in the Sahara Desert in these countries.

(00:47:46):

France gets lauded, I think properly, for having a really great nuclear program. But what most people don't know is for decades, all of that uranium was essentially stolen from their monetary colonial subjects in the Sahara in places like Chad and Mali. So an enormous amount of French culture and prosperity and standards of life were subsidized by repressing these people in 15 countries in Africa. And it was through the currency, so basically, on the street, people call it the CFA, it's the Colonial French franc. That's what it's still called today.

(00:48:24):

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There's a really good book about this called Africa's Last Colonial Currency. Yeah, I think your readers will find it really interesting. And I also have a chapter in my book, *Check Your Financial Privilege*, on it. But essentially, the CFA is controlled by France. It used to be tied to the franc, and then now it's sort of tied to the Euro. But between '44, when it was invented, and the late 90s, it was devalued 99.9% against the franc. So basically, the French squeezed all this economic life out of these countries.

(00:48:56):

And if you look, not only are all 15 authoritarian states, so no democratic development, also like seven or eight of them are the poorest countries in the world. We're talking like Guinea-Bissau, Niger, et cetera, Chad. So these countries were stripped of their prosperity and industry by France intentionally. And it's a shocking thing. It's totally shocking. And the country itself, for a long time, these countries had to keep 100% of their reserves, like their national earnings, in 4X in Paris. And when they wanted to have some, France would charge them. So France got access to all this capital. They also had a market to sell expensive stuff to. So you go down to Dakar, all the cars are French, because France just sold stuff to these countries.

(00:49:43):

And then, there's this thing where if you are in Ivory Coast and you want to build a bridge or something, you have to first go to French contractors and offer the job to them at a higher the market rate. And only if they refuse can you go to the Americans or Chinese. Similarly, if you're selling coffee, you have to go to the French first to sell below market rate, and only if they refuse can you sell to someone else. So it's basically like-

Nate Hagens (00:50:07):

This is today or in the past?

Alex Gladstein (00:50:09):

This is today. Now certain things have changed very slightly, but the colonial currency continues to exist today, and all these countries are still in it because France props up dictators throughout the region to protect the system. So it is pretty intense. But basically, what I'm saying here is that this is an extreme example of the broader thing I'm describing, which is that Western countries, through the currency, exploit peripheral nations and they subsidize their way of life this way.

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Nate Hagens (00:50:41):

So I should probably, Alex, just shut up and let you tell us what's important, and I not ask you any questions, because I have a hundred questions, and you have a hell of a lot to say. But I am going to interrupt here and say two things.

Alex Gladstein (00:50:56):

Yeah.

Nate Hagens (00:50:56):

One thing and then one question. So until this conversation, the way I think about inflation and deflation is we have the deflationary impulse from new innovation and technology and mass producing high definition television sets, because we get better at those processes.

Alex Gladstein (00:51:17):

Yeah.

Nate Hagens (00:51:17):

That's paired with energy depletion, where oil and copper and materials are getting less concentrated and they're more costly to extract, and that ripples into our price system. But now realizing it, that's kind of a Western perspective, because there's a third dynamic that influences our prices and our ability to afford things, and that is this global financial, well, monetary colonialism is what you said. Because those inflationary and deflationary impulses that I just described in Angola or Chad or somewhere else, aren't as relevant as where their currency comes from and what they need to pay for things.

Alex Gladstein (00:52:05):

Well, you're totally right, but I just add two things that you're hinting at it. It's also about us getting cheap labor abroad. If we had to make everything that we use in the United States with our wages, our stuff would be way more expensive. So obviously, we've outsourced a ton of that to China and elsewhere. And that's really important.

Nate Hagens (00:52:27):

And how close is that to slavery, in your mind?

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Alex Gladstein (00:52:31):

I think that the system is corrupt and unethical. It's evil in many ways, but it's not like you can point to one person. It's an outcome of the way that history has unfolded. And what's crazy-

Nate Hagens (00:52:47):

So in my language, it's an emergent property of past decisions that have resulted in this energy-hungry superorganism.

Alex Gladstein (00:52:54):

Yeah. And look. I'm a classic liberal. I love freedom, I love capitalism. But we don't have a counterfactual here. We have our world where this is an outcome of our system. Now you can argue that what we're doing, no true Scotsman thing, you can say, "Well, this isn't capitalism." And I would say, "That's actually right," because everything's totally centrally planned. You have the petrodollar, you have US trade policy that prevents nations from trading equally with each other. Everything's controlled. So there's a little bit of that, but it's hard to separate our way of life from exploiting other nations is what I'm saying.

(00:53:25):

And just to give you a stat that I think is important, again, the point here is that these systems we've developed over time, the fiat currency system, the World Bank, the IMF, the international financial system, followed the age of colonialism and imperialism and tried in many ways to replicate it. And again, the point was the resource flow. So here's a crazy stat that your audience probably doesn't know, and I didn't know until last year. In 1982, the flow of funds permanently switched from previously the Global North sending resources and investment to the Global South, to it coming the other way around.

(00:54:00):

So since 1982, there's been a growing drain of resources. We're talking everything: investment, grants, remittances, commerce, all that stuff, black market, white market, all of it. Since '82, it's been flowing our way. So Global South countries have been subsidizing us since '82 permanently. And it started as a trickle, and now it's trillions of dollars a year. So in many ways, we've perfected this art of exploiting the other.

(00:54:26):

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And this is the stat. So in 2015, the drain was 10.1 billion tons of raw materials and 182 million person years of labor, so that's 50% of all goods and 28% of all labor used that year by high income countries. So all you need to do is think about it this way. Pretend half our goods weren't subsidized, and pretend 28% of our labor wasn't subsidized. What would happen to prices in New York and in Philadelphia? They'd be a lot higher. Yeah.

Nate Hagens (00:54:58):

So I'm just visualizing this as a giant siphon from the Global South to... Yeah.

Alex Gladstein (00:55:03):

Yeah. Yes. And it's all made possible with debt. So basically, the whole idea was to replace the warship and the gun and the bayonet with debt. So debt became the weapon. And look. Anyone listening from the Global South is not learning here, probably much. They know this, they've lived this, they've seen this. They've seen wage deflation. They've seen stuff get worse. We talk about in America how wages have been stagnant since the 70s for the lower middle class, which is true. I mean, stagnant? In some of these countries, you saw a 20-30% decrease in GDP.

(00:55:40):

So one fact that I learned that was shocking, when we talk about the human toll of all this, and forget the environmental toll for a second, just on the human toll, when a country like Mexico, which is a classic country that's had a lot of dealings with lending with IMF, et cetera, when their GDP contracts by 2%, their mortality rate deteriorates by 1%. So think about if you have 100 million people and your GDP goes down 2%, you're losing a million people prematurely, right?

(00:56:14):

So think about the 70s and 80s, during what culminated in the Third World Debt Crisis. You had countries that lost 10, 20, 30% of their GDP, so these policies killed tens of millions of people. But they'll never be in accounting. They'll never be any justice. No one will ever go to prison. In fact, Larry Summers, who was the head of the World Bank's Economic Unit in the early 90s, he went to the White House and now he's on Twitter telling us what to do. None of these people will ever suffer any consequences for anything they ever did. And that's just something that we have to accept.

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Nate Hagens (00:56:44):

Do you think people like that are aware of the things that you're saying? Or were they focused on helping what their mandate was and these were spandrels or externalities?

Alex Gladstein (00:56:53):

So there's a pretty famous... In the high levels, yes, they're culpable and they're guilty. Because there's even a memo that Summers wrote in the early 90s that leaked, where he basically was suggesting that we dump all of our toxic waste in Africa. That guy totally knows.

Nate Hagens (00:57:09):

I remember that quote. I remember that quote.

Alex Gladstein (00:57:09):

Yeah, yeah. He's a...

Nate Hagens (00:57:11):

But that was an environmental guilty thing. That this debt as a siphon from...

Alex Gladstein (00:57:16):

Yeah, but I think that 80 to 90% of the employees at these institutions, who by the way, are paid extremely well, they love their jobs, they think they're doing good. And it's sort of the banality of evil thing, right? I wouldn't expect... They just don't know. They just don't know. I think you really have to zoom out to see this. The argument I'm trying to make, what I've just discussed is laid out in my new book that came out yesterday actually called Hidden Repression.

Nate Hagens (00:57:46):

Oh, I didn't know that.

Alex Gladstein (00:57:48):

How the IMF and World Bank Sell Exploitation as Development. And I just hope that... All I'm asking is that people educate themselves on this and come to their own conclusions.

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Nate Hagens (00:57:59):

Let me ask you a personal question.

Alex Gladstein (00:58:00):

Sure.

Nate Hagens (00:58:01):

And I'm going to ask you some personal questions at the end of this interview, too.

Alex Gladstein (00:58:04):

Yeah.

Nate Hagens (00:58:05):

But at the beginning of this, you told me that your work at Human Rights Foundation is helping global dissidents.

Alex Gladstein (00:58:11):

Yes.

Nate Hagens (00:58:12):

And human rights. And living in fear is a terrible thing.

Alex Gladstein (00:58:17):

Yeah.

Nate Hagens (00:58:18):

Some of the things you've dropped on this podcast even so far are pretty threatening to the status quo. I know there's a lot of environmental dissidents in South America that pay for their courage with their lives, because people don't want to hear that.

Alex Gladstein (00:58:35):

Totally.

Nate Hagens (00:58:36):

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Are you ever afraid of what you're saying, because it's so profoundly against the cultural narrative or the Western privilege?

Alex Gladstein (00:58:45):

I think that no, because I work with all these dissidents who literally, some of them have been killed, right? So I think I don't take anything for granted, but I take advantage of my opportunities. We'll put it that way. I'm happy to do this and I just hope people can learn.

(00:59:05):

I'm trying to walk this line between, again, I'm a huge believer in Western civilization at its core values and the American Revolution and what it stood for at the time in terms of being anti-imperial. I'm 100% on board with the values. What I'm not on board with is what's happened since, right? So I think that we need to improve.

(00:59:28):

The problem is that a lot of people who say stuff that I've said on the show so far will then all of a sudden go and be like pro-CCP or pro-Putin or pro-dictator or pro-Chavez. That's wrong. Dictatorship is the enemy. Dictatorship is what we're fighting against. We need to work out the kinks in our liberal democracies and improve them, not go simp for some dictator. So I've been really embarrassed by the number of people on the left who see some of the stuff I'm seeing, but then they go ahead and say, "Well, America is evil. Let's go support Putin." This is a horrific thing. And you see a lot of people on the left and on the far right. There's the horseshoe theory, right? They're like, "Ukraine's fake. It's a NATO war," whatever. All this crazy stuff you see. It's crazy. So I'm trying to walk a line between knowing that the free society is what we want, and that individual rights are really important, and that we want to protect individual freedom. This is so key. And at the same time, trying to understand the costs of our system. What has our system imposed on others? And I'm just trying to help people think about that. And ultimately, I think it calls for monetary reform, which probably pushes us to the next part of the conversation.

Nate Hagens (01:00:44):

Yes, let's go there. So how did you, when did you become interested in Bitcoin as a part of the suite of responses to the challenges that you just laid out?

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Alex Gladstein (01:00:57):

Yeah. And just before we get to Bitcoin, last thing. If you're listening so far, I just would ask you, is it fair that 4% of the world's population can impose rules on the rest of the world? Is it fair that a small group of unelected old white men, for the most part, in Virginia, get to decide the cost of capital for everybody? I think the system is profoundly unfair. I've benefited from it my entire life. I have this financial privilege. But I'm asking you just to think about what it's like for other people, both at the retail level of can you send money to your friends? This is just non-trivial for some people. Try to send a Western Union or a bank wire to Mozambique or to South Korea even, it's impossible. And it's expensive and it takes a lot of time and sometimes it doesn't even make it. They have to deal with a lot. So all I'm asking is just put yourself in their shoes. And that's what brought me to Bitcoin.

Nate Hagens (01:01:52):

So before you continue, is there a way to have modern complexity, globalization, six-continent supply chains with 100 to 200 countries each having their own cost of capital?

Alex Gladstein (01:02:14):

That's highly impractical.

Nate Hagens (01:02:14):

Or did it have to go this way?

Alex Gladstein (01:02:16):

Yeah, I think what you probably would've seen had the petrodollar not happened is just more of a multipolar world. I think the US is always going to be really dominant, no matter what currency paradigm we have. But it reached this crazy apex.

Nate Hagens (01:02:30):

So there might have been five or six currencies and then the cost-

Alex Gladstein (01:02:38):

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Yeah, or three, or even two. And look, one outcome of the petrodollar system was defeating the Soviet Union in the Cold War, which was good. So there's that. I think we should be balanced about this.

Nate Hagens (01:02:46):

Briefly, how did that ... How was that?

Alex Gladstein (01:02:48):

Well, we got to print money. We got to click a button to buy oil, and they had to dig it out of the ground. How's that?

Nate Hagens (01:02:55):

That's good.

Alex Gladstein (01:02:55):

That's pretty much it. That was one of the big ... And then think about all the trickle down effects from that.

Nate Hagens (01:03:01):

So I have this in my Earth Day talk that I gave last night, and it'll be online next week, is we talk about the American way of life, and a lot of it is because of our accident of geology, where this country is totally a bunch of ancient oceans, and we have natural gas and coal, and we have 90% plus energy independence. But a big part of it is the hegemony that we get from the US dollar, and the seigniorage and the benefits that you've been describing.

Alex Gladstein (01:03:40):

And I would say pre-shale revolution, or pre-our ability to use technology to make things cheaper, we'll just say, there was a moment there. Late '90s, people were freaking out about the euro. People were freaking out about the petro euro. I make an assertion, I know it's provocative, but I think one of the major reasons we invaded Iraq was to protect the petro dollar. I don't think it was to bring democracy to Iraq, I don't think it was to fight terrorism, I don't think it was to take away nuclear weapons.

Nate Hagens (01:04:08):

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I totally agree with you.

Alex Gladstein (01:04:09):

And I don't think it was for oil because we had all ... We don't get any oil from over there. But what was threatening was Saddam selling tens of billions of dollars of oil to Germany and France in Euros. That was a problem. Get this. There's a Newsweek article by Howard Fineman from June Three. You go look at it, and it just notes that the end, "A couple weeks later, the Iraqis were back to selling the oil for dollars." Yeah, that was fixed. So I'm not saying it's the only reason we went in there, but it's certainly at the top for me. And David Graeber has a great piece of debt in his book *Debt, rest in peace*. He has an awesome section on this about the dollar and about Iraq. It's really good. And about Vietnam, people should read it. It's excellent.

Nate Hagens (01:04:50):

How do you as the United States ...

Alex Gladstein (01:04:54):

Sorry, just to finish that. So there was a moment there where things were getting ... Remember how expensive oil got? It was dicey right there. So we were freaking out about a lot of things, and then technology sort of bought us another decade. And what also bought us another decade was China coming into the WTO, and us being able to sell a trillion dollars of treasuries to China. And as Luke Groman is great on this, a macro economist, and so is Lyn Alden. Both of them are excellent to follow.

Nate Hagens (01:05:23):

I follow both of them.

Alex Gladstein (01:05:25):

Yeah, so basically during and after the great financial crisis, that was the peak of dollar hegemony, and ever since then, these countries have been selling off our debt and buying gold. So we're kind of going back to this world where countries probably are going to start settling in gold more and more, and less and less in American claims. And this was obviously expedited by Russia's invasion of Ukraine and the G7 decision to freeze Western financial assets that were held by the Russians. So all these other dictators are looking at that and saying, "No thanks, no thanks. We're going to

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hold something that you guys can't remotely confiscate." We've managed to keep the system alive, but I think that it can't last forever. No monetary empire lasts forever. And it's not going to be China. Sorry. Sorry, Ray Dalio. If you look at every reserve currency, it was always based at its core in freedom and property rights and rule of law. Whether it was the Dutch, or the British, or the Americans, at least at home, there was a court system where there was rule of law. The Chinese don't have this. No one's going to trust the Chinese government to issue currency. They have a closed capital account. They don't want the Triffin Dilemma. That's not going to happen. So it's going to be, I think the dollar-

Nate Hagens (01:06:39):

What's the Triffin Dilemma?

Alex Gladstein (01:06:41):

The Triffin Dilemma is a situation a country gets into and it becomes the reserve currency, whereby normally when your currency gets really strong, your wages and things get very expensive, your currency gets strong and your exports become uncompetitive, so people stop buying them and your currency starts to get weaker. This is a natural balance in the order of things. But with the Triffin Dilemma, the difference is that the reserve currency, everybody else needs it. So the dilemma is that the issuer of the reserve currency goes deeper and deeper and deeper and deeper into debt, while its currency remains pretty strong instead of weakening. Normally if you're ...

Nate Hagens (01:07:27):

So we're facing that.

Alex Gladstein (01:07:31):

Right, but if you're like Malawi, you're going to go bankrupt and have hyperinflation. But if you're United States, we have this massive demand for dollars. So the dilemma is that if you look at any account reading of the United States since the '70s, it's insane. It's like this. It's like we have this insane deficit of 30 trillion that keeps growing by one and a half trillion every year. Again, this is the only debt empire in history. So there's no precedent for this. We've never seen this before.

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Nate Hagens (01:08:00):

So I'm about nine questions behind, but this is all good. I've already concluded that you're going to have to come back for around two, but let me just ask you this. Around 40% of the watchers of this podcast are from the United States, and quite a few from Europe. How can someone not feel a little bit of shame from hearing the story that you've unpacked here in the prior hour?

Alex Gladstein (01:08:33):

I think it's a fair ... When I went through all this research that I've been doing the last few years on these topics, I go through shock, surprise, disappointment, shame, and then we'll get to this, but the inspiration part. It could be better. We could change things. Not for the past, but for the future. I would recommend next time you're in New York, or Rome, or Berlin, or London, and you're at a particularly beautiful place, looking at all this incredible civilization that we've built, just consider that, yes, a lot of it is because of freedom of our values, of property rights and free speech, and constitutional democracy and all that. Absolutely. And those are worth fighting for.

(01:09:14):

It's also because we stole resources and labor from poor nations for a long time. And that's something we don't think about. And it's just the truth. And I know people don't want to look at the truth or deal with the truth, but the truth is both. And that upsets everybody, because there's a lot of Marxists who say, "No, it's not because of freedom. Screw freedom. It's only because of exploitation." And then there's a lot of neoliberal people who are like, "Not really exploitation. It's all because of how great our markets are," and all this stuff. The truth is that it's both. And I know that's not a clean picture for people.

Nate Hagens (01:09:51):

And it's somewhat, a lot predicated on the 100 billion barrel oil equivalence of coal, oil, and natural gas that are underpinning it all.

Alex Gladstein (01:10:01):

100%. And again, let's move to Bitcoin. But the last thing I'll say is just that we've had such an incredible opportunity to take advantage of fossils, and a lot of other countries haven't, and that almost entirely has dictated their development in many ways. How

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could they access those fossils and what could they do with them? A lot of countries like Nigeria, they have a bunch of oil, but they can't do what they want with it. They have to sell it for dollars to get money to pay back debt and to buy food. So you have this whole system where Africa as a continent imports 85% of its food, which is insane, because it should be feeding the world.

Nate Hagens (01:10:42):

So here's a really naive question, and then yes please, let's get to your interest in Bitcoin.

Alex Gladstein (01:10:49):

Yeah.

Nate Hagens (01:10:51):

Does the average person in Nigeria, or Mozambique, or Angola understand the premises that you've laid out here? Are they angry at the United States and the West because we have the global reserve currency, or are they just discontent because they can't afford things that they would like and there's other issues?

Alex Gladstein (01:11:15):

Well, just like I was ignorant about my country until recently, I would assume most people are pretty ignorant about this stuff because it doesn't impact their daily lives. That being said, people that I've met, I can only speak for who I've met, my personal experiences on my travels and in my work, they're very aware that when the IMF comes for austerity, things get worse. This is super obvious to anyone who's lived through any of this stuff. And ironically-

Nate Hagens (01:11:41):

So the IMF is the Soprano's equivalent of Paulie Walnuts?

Alex Gladstein (01:11:45):

It's like the Grim Reaper. Honestly, it's like the Grim Reaper. And structural adjustment, which is this policy that these countries have to do when they borrow money from the IMF, or more recently from the World Bank, they have to raise taxes, reduce subsidies for food and energy, they have to shrink their economy, they have to devalue the

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currency. I mean, this is never asked of the West. The United States and Germany, they've never had to structurally adjust. In fact, because we're democracies, we refuse. And that's why the IMF and World Bank working with dictators. That's what drew me to research this thing in the first place. I was like, "Why the hell are we bailing out Suharto and Marcos and Mobutu, these criminals, these war criminals? What's going on? Why are we supporting them?"

Nate Hagens (01:12:32):

So the implication is that in order to label ourselves as democracies, we have to be international authoritarians.

Alex Gladstein (01:12:38):

Well, I think the friction I've uncovered, I think, in my research is that ... It would be, I think, obvious to an alien coming and looking at the thing, would be that our system has powerful nations exploit the weak. It's pretty simple. And that is exacerbated by the money.

(01:12:58):

So look, I spent 10 years working with activists from these countries all around the world from these authoritarian nations. And I saw the problem they had with money. Not necessarily on the global macro front, but on the, "I couldn't set up a bank. This dictator shut off my bank account. My currency sucks. I can't receive a wire from you when you want to give me a grant." Just basic logistical stuff is so hard for so many people. And then they kept telling me about they're using Bitcoin. And I'm like, "What?"

(01:13:28):

The first time was WikiLeaks. Julian Assange spoke at the Oslo Freedom Forum in 2010. I met him in person. And six months later, Satoshi Nakamoto, the creator of Bitcoin, had their last public post. Where whoever they were, he/she/they said, "Let's hope that WikiLeaks doesn't use Bitcoin. We're not ready. The software project was too vulnerable." This was in December 2010, six months after Assange spoke at my event, and I met him. Six months later, Satoshi disappears, Assange posts a Bitcoin address to the WikiLeaks account. The rest is history. The US government came in and shut off any way to pay or donate to WikiLeaks through Visa or PayPal or whatever. So you had to use Bitcoin. Now, Bitcoin at the time was worth a dollar. It wasn't worth

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anything. No one trusted it. But guess what? It worked for this purpose, and we saw that and that was interesting.

(01:14:16):

Fast forward two years, 2013, two things happened. A bunch of Ukrainians who were gathering to be what would later be Maidan Square, wrote to us and said, "Could you help us do a fundraiser? Our bank accounts got cut off. Can you send us some Bitcoin?" And Gary Casperoff, who's our chairman, we worked on this together. There's still this Reddit post from 2013. You can see this. So we helped get them some Bitcoin, and to our surprise, it worked. Again, Bitcoin wasn't worth much, but it allowed money to go beyond the control of the state, which was important for our work.

(01:14:48):

The other thing that happened that year is this woman named Roya Mahboob, who's a good friend of mine, started using Bitcoin in her work in Afghanistan to pay the women who worked for her company, a software company. She was a pioneer, had a female only software company. She couldn't pay the girls in cash because the male relatives would take it. They couldn't open bank accounts, but they had phones. So she paid them in Bitcoin and it worked, and it gave them freedom.

(01:15:11):

So those two things weighed heavily on my mind, but I'm a skeptic. If I do a personality test, I'm a 99% skeptic. So I was like, "Okay, okay, fine. This Bitcoin thing." But I kept kind of ignoring it. We started accepting Bitcoin donations in 2014 at HRF. So we started getting some Bitcoin, I started to get it a little more, but it wasn't really until late 2016 or early 2017 that I was like, "Oh my God, we have to actually have a program here where we link Bitcoin folks with activists so we can help them, just like we helped activists learn about encryption."

(01:15:44):

So in 2010, no activists used any sort of really personal encryption on their phones outside of Western experts. It was really not done. Fast forward 10 years, everybody uses Signal. So you had a 10 year time where everything changed. I think that's going to be the case from, let's say, 2018 to 2028. I think over that decade, every activist is going to use Bitcoin, whether they do or not. It's not a philosophical thing. It's like email. Do I care about the political beliefs of the people who created email? No. I'm using it because it's obviously better than sending something in the mail. That's Bitcoin to me. I

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don't care about who created it. I'm using it because it allows me to transmit value from A to B with no questions asked, to anyone in the world, in an instant, for very cheaply and for very fast. That's why I would use it.

Nate Hagens (01:16:35):

So let me level set a bit here.

Alex Gladstein (01:16:37):

Yeah.

Nate Hagens (01:16:40):

I know enough about Bitcoin to be dangerous. I am in the space of energy depletion peak oil, fiat currency, end of growth, climate change, environmental issues, biodiversity, systems ecology. And I would say the vast majority of people in that space are either ignorant about Bitcoin, or antagonistic about Bitcoin because it requires energy to mine, and that energy contributes to climate change.

Alex Gladstein (01:17:13):

100%.

Nate Hagens (01:17:13):

So my interest in Bitcoin came about because I could see two or three steps ahead that at every can kicking moment in the global west, that the US and other central banks would not choose austerity. That we would print more money to offset our problems, and therefore there would be not only a continued, but an accelerated biophysical debasement of our monetary representations of reality. And there had to be some alternatives to that.

(01:17:47):

I actually bought Bitcoin at \$70, and I sold it at 100 thinking I was smart. I bought it again at 700, and I sold it at 300 because this thing sucks. And other things over the years. But you came into your interest of Bitcoin, not because of the potential demise or devaluation of the US dollar, but because you wanted to be able to quickly and cheaply get funds to your global freedom dissidents on the human rights issues. So you talked about sending money to-

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Alex Gladstein (01:18:31):

Yeah, I didn't own any Bitcoin until 2017. I had been exposed to it for six years, and I was like, "This thing is ..." I just wasn't sure.

Nate Hagens (01:18:41):

But you mentioned the Ukraine example back in the Maidan revolution.

Alex Gladstein (01:18:47):

Yes.

Nate Hagens (01:18:47):

Couldn't you use PayPal or Western Union or things like that?

Alex Gladstein (01:18:52):

No, because these people had their bank accounts closed down. They had no way to receive money.

Nate Hagens (01:18:59):

So they didn't have a bank account, but they did have a phone or computer.

Alex Gladstein (01:19:03):

Yeah, of course. Yeah. Ukraine is very wired. And here's the interesting thing. Countries that have been hit hardest by ... You talk about how we're not going to have austerity here. Correct. Politicians will do stimulus. That's written on the wall. What we'll do is we'll have austerity over there, where we can't hear the screaming of all the people who are suffering. That's going to happen. That's happening as we speak right now.

(01:19:24):

Now, those countries are the ones that are adopting Bitcoin the most rapidly. If you look at the capita usage of Bitcoin and cryptocurrency, it is highest in places like Turkey, Argentina, Nigeria, places where the local fiat system is collapsing. And that should be just very rational. That should make sense to most people.

Nate Hagens (01:19:41):

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Just out of curiosity, what is the per capita percentage number of people that use it in those countries versus the US? Do you know?

Alex Gladstein (01:19:48):

Okay, so this was 2022, a global report, ownership of Bitcoin and cryptocurrency, percent of internet users aged 16 to 64 who own Bitcoin or some form of cryptocurrency. The worldwide average is at around 10%, and the US is at 12%. Thailand's at 20%, Nigeria 19%, Philippines 19%, South Africa 19%, Turkey 18%, Argentina 18%, Indonesia 15%, Brazil 15%. So I've just named six of the biggest recipients of IMF aid ever. Brazil, Indonesia, Argentina, Turkey, Philippines, Nigeria, Thailand.

Nate Hagens (01:20:33):

Oh my God. So just out of curiosity-

Alex Gladstein (01:20:35):

All of it between 15 and 20%.

Nate Hagens (01:20:37):

Does it show all the countries in the world? What are the bottom few? The least ownership. Do you have that?

Alex Gladstein (01:20:43):

Yeah. And again, this is one data point. A lot more needs to be done, but a lot of very advanced countries like Japan, Italy, Poland, Israel, and China. Who knows there?

Nate Hagens (01:20:58):

Yeah, who knows?

Alex Gladstein (01:21:00):

All I'm saying is that you have two drivers for Bitcoin adoption. One is fiat collapse, your local currencies collapsing, and the other one is political repression. So in China, we don't know the true Bitcoin stats because it's impossible to know. But what we do know is there's a ton of Bitcoin adoption in China.

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Nate Hagens (01:21:17):

Well, and the other thing is many of those countries that you mentioned, there is no fiat collapse because they don't have any fiat. They have to use US dollars.

Alex Gladstein (01:21:28):

Yeah, exactly. And in general, I think that's what I just said is a good thing for you to think about. There's two reasons to want Bitcoin. Digital gold, digital cash. It's either that you want a better savings technology and your government bonds are just not doing the job, and you want something that over 10 years is going to really hold your purchasing power, which is what gold has done. Gold has held its purchasing power since ancient Rome. The cost of a beer in ancient Rome is the same amount of gold as it is today. It's kind of crazy. Or the amount of gold it cost to buy a bread in the time of Nebuchadnezzar is the same as today in Whole Foods, pretty much. It has preserved purchasing power because there's no such thing as alchemy. You can't just make gold out of silver or whatever. You got to dig it out of the ground, and it gets harder and harder to dig.

(01:22:13):

Now, Bitcoin is similar to that, but it's also digital cash. It has vulnerabilities, but it can be quite private, and it's unstoppable. So it's like cash. It's like me paying you. The government doesn't have to know about it. They can't socially engineer us. It's just a payment. A bear instrument payment like we used to do, but it's on the internet. So it does these two things really well. And those things are going to be really in demand this decade if you just think about two words, devaluation and de-platforming. Those are going to increase exponentially over this decade, all over the world.

Nate Hagens (01:22:44):

What's de-platforming?

Alex Gladstein (01:22:47):

What they did to WikiLeaks.

Nate Hagens (01:22:48):

Oh, okay.

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Alex Gladstein (01:22:48):

Kicking them off PayPal, or kicking them off Patreon for not having the right politics. Now, first it'll start happening to extremists on the edges, but then it starts to come to the center, and you'll see that.

Nate Hagens (01:23:01):

Okay, you are the very first guest out of 70 that I've had talk about Bitcoin, and you are a global expert on it. Would you be willing to talk to me like I am a junior high school student, just because I want to get some of the foundational tenets before we get into some of the advanced questions, which I've been thinking about. Real briefly, maybe just give short one to two minute answers and we can get through a bunch of questions. What was the foundational philosophy of creating Bitcoin, or whoever created it?

Alex Gladstein (01:23:41):

They wanted digital cash. They wanted an internet of money. That's what Satoshi Nakamoto wanted. If you read the white paper, they wanted an ability for two internet users to transact without a third party in the middle. There's a lot of reasons for that. A reliance on third parties has led to both, again, devaluation in our currency, which is most obviously seen in the global south, but also now it's being seen in the west. That was something that wasn't the case once Toshi made Bitcoin, we had the global financial crisis, sure, but we didn't have high inflation in the dollar. But guess what? There was high inflation all across the world at that time, outside of the core.

(01:24:21):

And then at the same time, they were worried about censorship, de-platforming. So again, devaluation de-platforming. They were worried about third parties saying no. And this is just growing, you have a lot of reasons to want to have just a quick transaction with somebody else without having to ask permission. So Bitcoin is what we call permissionless. It might be that you were in the United States during Operation Choke Point under Obama, and your dad blew glass that people used to smoke pot in, and he got de-banked. I met a Bitcoin developer who is that person. She got into Bitcoin because her dad ran a small business and was de-banked by Operation Choke Point. Could be that you're a sex worker. It could be that you are involved in guns, that you're a gun trainer. God knows what. It could be that you want

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an abortion and you live in Mississippi or something like that. There's a lot of reasons why people want to have private digital transactions that don't give away their identity, and I think it's absolutely core for democracy.

(01:25:17):

A good example is Hong Kong. When the Hong Kong students and activists were protesting against the CCP takeover in 2019, they had to use the subway system. In any large urban area, you have to use subways, and they didn't want to use their octopus card, which is their metro card, to get on the subway because it could be tracked and then they could be fired from their job, or suspended from their university if they saw somebody getting off at a protest. So they would line up with cash to buy one-time use cards. Huge lines. There's photos of this all over. So I really think it's important for us to have digital cash if we want to defend our democracies. This is really, really important. But in any event, I think that Bitcoin is, very simply, separation of money and state. It's a way for us to just peer-to-peer transact as individuals on the internet. And it's basically emailable money. That's the longest and short of it.

Nate Hagens (01:26:08):

And technically there's eight billion humans, and it's if you do have a cell phone or a computer, you are part of that monetary open society that could technically have Bitcoin.

Alex Gladstein (01:26:25):

It's very similar to email protocols. The Bitcoin protocol is a protocol. Any client can speak to it. You can build any client that speaks to it. So any Bitcoin wallet in the world, I have ones on my phone that are made in Argentina, Israel, all over. They all speak the same language, just like email speaks the same language. Just like Google or Yahoo or AOL all could communicate with one another because it was open. So Bitcoin is open, it's open money for everybody. So I can send Bitcoin to the West Bank from my living room in California in three seconds. The fact that people don't understand that this is a revolution, it just blows me away. How is that not interesting to you? How are you going to send money to the West Bank?

Nate Hagens (01:27:10):

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Does anyone else in the world other than you and whoever received that in the West Bank, know that that happened?

Alex Gladstein (01:27:17):

If we follow the right steps, no. They have no idea. If we are lazy, yes, you can be seen. And in fact, the US government has arrested a lot of people who have been sloppy with Bitcoin, who've used it for crime. And it's fair to say that in its early days, it was used for a lot of what I would consider crime. I think that now accounts for a tiny percentage of its overall use. But I think to focus on that is very similar to focus on the aspect of crime during the early encryption debate in the 1990s.

(01:27:48):

So Senator Biden at the time and President Clinton wanted to ban encryption, they wanted clipper chips in American phones, they wanted to have full access to all digital communications because they were worried about terrorists and criminals and pedophiles. Now, guess what? If they had their way, we'd have no privacy in the United States of America. We'd have a police state. But they lost. The courts ultimately sided against them. We don't have clipper chips, and we have Signal on our phones instead. Now guess what? Do all drug dealers and criminals use Signal? Of course, but that's not a reason to take it away from us. It's going to be the same thing with Bitcoin. At the end of the day, by 2030, most people will use Bitcoin in some way or another, and it'll just be like email. It's an advancement in this area, and our policing will have to adapt to it. That's my take on that element of it.

Nate Hagens (01:28:38):

I have more fundamental basic questions. But on your prediction there by 2030, how confident are you of that?

Alex Gladstein (01:28:46):

Very. The existing currencies are failing. They're not doing well, and they're not sufficient for the world's population. There are billions of people who are unbanked, but many of them have access to a phone. This idea that money today is so gated. You have to have ID, you have to prove yourself. You have to show that you're somebody to use money, to me, is totally unnatural. It should be a basic human right to transact with somebody else in the world. So this has led to the financial exclusion

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of so many people. What you need to know is that KYC and AML policies are financially exclusionary. They leave out the most vulnerable and disenfranchised people in the world, and that's not fair.

Nate Hagens (01:29:32):

KYC is know your customer.

Alex Gladstein (01:29:34):

Exactly.

Nate Hagens (01:29:35):

Okay, so I have some holes to poke in what you just said. But again, for the benefit of my systems ecology audience, that is accounting the decline of mammalian species and keep building in the ocean, let's start ... What is blockchain? Let's just briefly start there.

Alex Gladstein (01:29:58):

So Satoshi created Bitcoin as a decentralized money-

Alex Gladstein (01:30:03):

Created Bitcoin as a decentralized money system for the world, and the only way to do it without corruption inside the system was to decentralize the issuance of money. The issuance is what always wrecked all these other experiments with digital cash, with E-money, with E-cash, there was always like an issuer who could get arrested or who could print a bunch of money and devalue your savings. So the question was how do you decentralize issuance? And they did this through something called Nakamoto Consensus, which is related to what we call proof of work. So this is a computational competition. So this is why people buy Bitcoin mining machines and they'd run them all around the world and they compete. What they're doing, they're not printing Bitcoin, they're receiving it as a reward for work. So if you prove that you've done a certain amount of work in the Bitcoin system, you get new Bitcoins.

(01:30:54):

And these Bitcoins started at 50 bitcoins every 10 minutes. This was in January 2009 when Satoshi started the system. And every four years, that amount of Bitcoin that

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comes into the system gets cut in half, we call it a halving. So for four years there was 50 coming in every 10 minutes, then 25 and then 12 and a half, now we're at 6.75, that's going to go all the way to zero in the year, like 2130. So ultimately there's a limited amount of Bitcoin that will ever exist, that's the most important property of Bitcoin, is that if there's 21 million of them, that no one will be able to print more. That's very unique among all digital currencies. In fact, Bitcoin is the only digital currency that's not virtual, meaning it has a tie to the real world, meaning because you have to expend electricity to move it along, it has a tie to the physical world, and all these other currencies don't.

(01:31:47):

That's what I was so interested in your work, you're showing how the currency system got detached from the real world decades ago. I think this offers a compelling different model where the reserve... The base money that we use could actually be tied to real world resources, and I think this could be very healthy for us. But anyway, all this is to say that Satoshi didn't use the word blockchain, they used a word called timechain. So blockchain was invented later to describe the fact that the information that's stored in Bitcoin is done on different computers, it's not done in one place. It's in the cloud on thousands of distributed computers. And then people went on to make a lot of other blockchain tokens and cryptocurrencies and stuff like that.

Nate Hagens (01:32:30):

And so how long is the blockchain now?

Alex Gladstein (01:32:35):

It's like 300 gigabytes, and everybody who runs a full Bitcoin node has every single transaction that dates back to January 2009. And it's stored in-

Nate Hagens (01:32:45):

Include the ones when you sent Bitcoin to people in Ukraine?

Alex Gladstein (01:32:48):

Exactly, yeah. All of them of them are there. We'll say all Bitcoin transactions are there, now there are new technologies that allow you to use Bitcoin without proof of work called... basically it's layered money. This is important to actually note, just like

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society went from using gold as money to paper notes, to credit cards, we layered money, we sacrificed certainty for convenience, we layered money. Bitcoin will also layer, so there's like a thing called the Lightning Network, which is a way for you and I to transact instantly and very privately with Bitcoin without any proof of work, so without any mining involved-

Nate Hagens (01:33:31):

But it's still using Bitcoin, but it's not a direct Bitcoin?

Alex Gladstein (01:33:34):

100%. It's not a token. It's not some other crypto, it's Bitcoin. But there's ways to use Bitcoin where we're not on the chain. So it's not accurate to say that all of the transactions are in the chain, but basically you have a canonical record of all Bitcoin activity, yes going back to the beginning.

Nate Hagens (01:33:51):

So let's just say that this does scale and your predictions are correct. Then perhaps once the trust and the network effect of this really expands globally, maybe a higher percentage of the transactions would be in this layered way, with Lightning-

Alex Gladstein (01:34:09):

Oh, totally.

Nate Hagens (01:34:09):

Or something new and the actual blockchain...

Alex Gladstein (01:34:10):

Yeah, it's not just... Lightning is what I'd prefer because it's still sovereign. You can use Lightning in a way where you control it, where you can be your own bank, that's the motto of Bitcoin. But what's likely going to happen is what's happening now is custodial, basically people buy Bitcoin on Coinbase or whatever, and they think they have Bitcoin, they don't, they have a paper claim to Bitcoin, they have a claim on Bitcoin. And this is what we found out with FTX is that you had... I don't know, they thought they had 8 billion on FTX or whatever worth of Bitcoin, and there was zero. So this is why it's so important in Bitcoin to control your own funds to self custody, we do

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not want to be rugged. So it's very important if you own Bitcoin to learn how to own it yourself. This is super, super important because if it's not your keys, not your coins, that's what we say.

Nate Hagens (01:34:58):

So briefly, you described that this is a physical cost using electricity.

Alex Gladstein (01:35:06):

Yes.

Nate Hagens (01:35:07):

What is the difference between proof of stake and proof of work, and why is this important?

Alex Gladstein (01:35:14):

Well, briefly, in proof of stake, the people who own the most of the thing get to determine the state of the ledger and the rules of the system. So it's kind of like a centralizing effect. It's like it ends in some sort of oligarchy. That's like the end of that road. Bitcoin and its special brand of proof of work is much more decentralized. The fact that you have a lot of hash rate does not allow you to control Bitcoin, and it doesn't allow you to take my Bitcoin or change the rules. And there's a really good book on this if you're interested in the politics of it called the Blocksize War by Jonathan Bier.

(01:35:53):

Basically back when Bitcoin was more vulnerable in 2017, people who controlled 81% of all the mining in the world tried to change Bitcoin and they failed. Because owning a lot of hash rate does not allow you to control Bitcoin, but owning 81% of all of the Ethereum or all of the whatever coin that's on proof of stake, does allow you to control that coin. So it's very fundamental. It's very, very fundamental and very important that we have one coin that cannot be manipulated by the rich, by the billionaires. That's key.

Nate Hagens (01:36:28):

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So a common pushback on Bitcoin is that it's a heavy energy used item to create a currency in effect. So how much energy does it take to mine Bitcoin? Maybe you could along the way, describe what is mining? And what is the case for justifying this energy usage?

Alex Gladstein (01:36:56):

Sure. So-

Nate Hagens (01:36:57):

There was this big hubbub with Greenpeace is very antagonistic towards Bitcoin that I read recently, but go ahead.

Alex Gladstein (01:37:06):

Yeah, this is a great conversation, I think it's important. Bitcoin is processed, issued, stabilized by mining. Mining is the act of expending electricity, feeding it to the Bitcoin network. This started with laptops and home computers at the beginning. And as more people join the system, Bitcoin has this very special thing called the Difficulty Algorithm. So every 2016 blocks, which about two weeks, 2016 times 10 minutes, the difficulty resets. So if there's been a lot more people joining the network, it goes up so that the amount of time it takes to mine those blocks stays at 10 minutes. So the network stabilizes. That way, for example, when China... When the CCP banned Bitcoin mining two years ago, and the network lost 70% of its electricity, it didn't die. What happened is a few days later, it adjusted way down and everybody was at the same level of difficulty-

Nate Hagens (01:38:05):

The math problem became easier?

Alex Gladstein (01:38:07):

Way easier, yeah exactly. So the more people mining, the harder the math problem. And it's basically very simply, it's like it's just computers that are specialized these days called ASICs to guess numbers, it's just guessing. And you're trying to get a certain number, you're looking for something called the nonce, and it's a very, very, very, very, very tiny number, and you're just trying to find it. And you have these computers just going, going, going, and every 10 minutes or so, somebody finds it, and then that

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person helps secure a bunch of transactions to the chain, and then we move on and we build from there. It's kind of like a-

Nate Hagens (01:38:48):

And they get compensated for that energy use?

Alex Gladstein (01:38:51):

Yeah, they paid in two ways. They get paid with the block subsidy, which right now is 6.75 Bitcoin and will decrease over time to zero. It's kind of like a bootstrapping mechanism, ultimately there won't be a subsidy. And then they also get paid fees, so when I send you some Bitcoin, I attach a small fee. So over time, the fee market will be what drives Bitcoin mining.

Nate Hagens (01:39:12):

The fee market rather than the mining market?

Alex Gladstein (01:39:16):

Well, what miners will be getting in return for expending electricity will be fees, ultimately. Today it's mostly-

Nate Hagens (01:39:23):

Rather than the reward for solving the nonce?

Alex Gladstein (01:39:25):

Right now, it's like 90... There's a website you can check out called Clark Moody's dashboard. It gives you all the data, but right now it's like 95% subsidy, 5% fees. Over the next 50 years, that'll change to the other way around.

Nate Hagens (01:39:38):

Okay. That's part of my question... Dude. I have so many questions.

Alex Gladstein (01:39:42):

Yeah, that's fine.

Nate Hagens (01:39:43):

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So 50 years from now, let's just say at some point it switches so that it's 5% subsidy or reward or nonce and 95% fees.

Alex Gladstein (01:39:54):

Yes.

Nate Hagens (01:39:55):

At that point, does the whole network use less electricity than today?

Alex Gladstein (01:40:01):

I mean, these things are extremely hard to predict. I'm not going to pretend to make predictions, but over time I think you have two important factors. One is that there will be an increased demand for Bitcoin generally, so there'll be more and more people mining. So there will be on one hand more energy-

Nate Hagens (01:40:20):

Except-

Alex Gladstein (01:40:20):

Expended.

Nate Hagens (01:40:20):

Except 50 years from now there's going to be 20 and a half million of the 21 million coins already minted.

Alex Gladstein (01:40:27):

Yeah, but-

Nate Hagens (01:40:27):

There's going to be minting fewer and fewer coins, right?

Alex Gladstein (01:40:30):

Yeah, nut the miners won't be worried about that. They're going to be trying to make the money off the transaction fees that people and institutions and governments spending. I mean, what I'm saying is that the amount of new Bitcoin being issued

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becomes less relevant in the future and eventually goes to zero, or the project fails. For Bitcoin to succeed, fees have to drive Bitcoin miners from a pure economic perspective, they have to make enough money off just the fees alone 50 years from now or else the project doesn't work.

Nate Hagens (01:40:59):

So it has to be used as a store of value and a store of commerce in the future for it to work?

Alex Gladstein (01:41:06):

100%, and I think what's most likely is that on chain Bitcoin transactions that take 10, 20, 30 minutes will become very expensive in relative terms, and they'll be kind of settlement kind of what Fedwire does or what central banks do, or maybe for very, very, very big things. You may do an on chain transaction, but for retail... If you're someone and you want to use Bitcoin to buy coffee or send a remittance, you're not going to be using on chain, you're going to either be using custodial Bitcoin through a service or you're going to use something like Lightning. So in any event, you won't be paying that fee.

Nate Hagens (01:41:42):

Okay. So I have my own response to this question, one of the few that I have an opinion on in this topic. But how do you justify, the large energy use of mining for Bitcoin?

Alex Gladstein (01:41:56):

Yeah. Well-

Nate Hagens (01:41:59):

Because it's a double expenditure of energy, you spend energy when you create the currency and then when you buy something with it, that's another claim on energy and resources in the world, yes?

Alex Gladstein (01:42:12):

In a sense, yes. I think that the most important thing is to acknowledge that Bitcoin's valuable to a lot of disenfranchised people around the world. That's like the thing I've

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uncovered in my work. So once we establish that, and I know that people will be skeptical about that, but you just got to go talk to people, talk to people in Lagos, talk to people in Buenos Aires-

Nate Hagens (01:42:29):

I'm not skeptical, you've convinced me.

Alex Gladstein (01:42:32):

No, but a lot of... It's fair to be skeptical, people should go out and do their homework, but do honest homework on this. And you'll learn that Bitcoin is important for tens of millions of people around the world.

Nate Hagens (01:42:43):

And if your work is successful, you hope that tens of millions turns into hundreds of millions or billions.

Alex Gladstein (01:42:51):

Yeah, I mean, from the human point of view, and again, we're about to get to the environment, it would be fair if there was one currency standard for the world that no one could manipulate, that would be equal rules for everybody. This is not some sort of redistribution of scheme, you're not going to be able to take from people remotely, but it ensures equality of monetary opportunity. It means that Jeff Bezos no longer can call up the Fed and get a bailout, it's the same rules for everybody. It doesn't mean that there's not going to be rich and poor or huge inequalities or any of that stuff, but it does mean that it's going to address something very key in that we've had this thing called the Cantillon effect, where the people who create the money get to give it to their friends first, and they benefit the most, and then the effects trickle down.

(01:43:34):

So as far as the energy stuff, once you understand that it's valuable, well then we have to start thinking in context. So for example, and we'll do two things, number one is what kind of energy is Bitcoin using? And then how much? So I like to think of it in raw energy as well as carbon footprint. These are two kind of key ways to look at it. So raw energy, yes, Bitcoin uses the amount of electricity of a small to mid-size country,

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and it fluctuates. It could be Poland, it could be Argentina, the Cambridge electricity... Cambridge Bitcoin mining website has this data, you can see the raw amount of electricity expended.

(01:44:14):

What I think is important to realize are two things, context. So the world's big countries use a lot more energy than the world's small countries. So for example, I think Norway uses more electricity - it's four million people - than the bottom 40 countries in the world combined. So first of all, we have this vast energy inequality that I've seen you talk about. So that's one thing to understand when we say, well, Argentina. Well what if I were to tell you that air conditioners in the United States use way more electricity than Argentina? So when it comes to carbon footprint, which is what I'm particularly interested in, Bitcoin has a smaller carbon footprint than the cruise ship industry, for example. And I think about that a lot. Cause cruise ships are great. I understand they give people jobs, but ultimately it's a luxury thing for people, like no one's going to die if we don't have cruise ships.

(01:45:02):

Bitcoin's not a luxury for a lot of people. It's going to end up becoming a lifeline for many, many people. So I think it's all about the value proposition. Do you think it's important for us to spend our very scarce energy on? I say yes, based on what I've seen.

Nate Hagens (01:45:17):

So you're saying that it requires energy and that's a good thing because if it didn't require energy or-

Alex Gladstein (01:45:28):

Could be corrupted.

Nate Hagens (01:45:29):

Or bio physical cost, it could be corrupted-

Alex Gladstein (01:45:29):

100%.

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Nate Hagens (01:45:29):

The whole logic for why it works wouldn't hold.

Alex Gladstein (01:45:32):

Correct. It needs to consume a real world scarce asset. And I don't mean scarce in terms of non-renewable, I just mean not infinite, not easily producible.

Nate Hagens (01:45:44):

Well-

Alex Gladstein (01:45:45):

The second part of what... Go ahead, yeah.

Nate Hagens (01:45:47):

Go ahead. No, go ahead.

Alex Gladstein (01:45:48):

No, the second half of this that I find really interesting is that there's a guy named Daniel Baton, he's a Kiwi, an environmentalist from New Zealand who's done a lot of work on this, he's got incredible data and charts. So by his metrics... So Bitcoin is already more than half powered by nuclear plus renewables, and it's increasing at 6% a year in this direction by what he's seeing. Now, why does this make sense? This makes sense for now because in our current climate, we have deflation in renewables. They're getting cheaper and cheaper and cheaper and cheaper. I know a lot of that's because of government subsidies, but it is what it is. They're getting cheaper and cheaper and cheaper and cheaper, for now, I know that you have opinions on that, but...

Nate Hagens (01:46:32):

I do.

Alex Gladstein (01:46:34):

Bitcoin miners are only going to use the cheapest possible energy. Their margin of profits really tiny, so they cannot compete with a residential consumer of energy. They cannot pay 10 cents a kilowatt-hour. They can only pay like three, four, five, six you're

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already starting to get... It's too expensive. So that's why you see Bitcoin miners in Siberia experimenting with OTEC off the coast of Hawaii. That's why you see them in... This is a great thing to learn about, why was all the Bitcoin mining in China? Because the Chinese government overbuilt hydro in the south central part of the country, and you just had massive dams spinning, and the energy wasn't going anywhere, it was being curtailed. So people were like, oh, we'll take that. So they were taking all of this, and then when the rainy season ended, they had to go up to this dirty coal up in where Xinjiang is and used that until they got kicked out by the CCP two years ago.

(01:47:25):

But the reason why all the miners were attracted to China in the first place was because of this massive excess hydro energy that nobody was using. So generally speaking, Bitcoin miners use energy that nobody else wants or that would be wasted otherwise. So this is one of the other things.

Nate Hagens (01:47:40):

For now.

Alex Gladstein (01:47:41):

Well, increasingly so. We have no evidence that this won't continue to be the case.

Nate Hagens (01:47:48):

Well no, I can easily foresee a time 10, 20 years from now where coal is the cheapest energy because we've...

Alex Gladstein (01:47:59):

Then Bitcoin miners would use coal, maybe I should be very honest about that.

Nate Hagens (01:48:02):

Right. So here's the point I wanted to make, I think there's a superficial critique from especially the climate movement that, oh my God, you're burning energy to create this currency, how unsustainable is that? Well, think about the energy implications of our US dollar, of the petrodollar. It used to be 95%, now around 80% of our money is created when a commercial bank makes a loan. And there is no tether at all to anything scarce or any resource. Now it's down to about 80%, the other 20% is created

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when the government has a deficit and they don't have enough money to pay for it. And they create money, they spend it into existence. Also, there is no... When a dollar is created, there is the tiny, tiny, tiny energy connotation of the linen that it's printed on, but that's minuscule. The major impact is we have created trillions of dollars instantly in claims on copper, oil, forests-

Alex Gladstein (01:49:14):

How about this-

Nate Hagens (01:49:14):

Dolphin habitat, et cetera.

Alex Gladstein (01:49:16):

Every war that the US has fought abroad since '67 has been paid on the national credit card. So literally spending into existence. For example, Americans are on the hook to pay 1 trillion... We've already paid a trillion dollars on interest alone for the Afghani Iraq wars, we're going to pay another trillion by 2030. So all of the 9/11, post 9/11 wars are credit card wars. So exactly, you're right. All of these things we're doing out there with these massive oil powered ships and all this stuff is all possible because of the currency system, 100%.

Nate Hagens (01:49:47):

And so that is an egregious use of energy that the critiques by Greenpeace and others of Bitcoin don't take into account. This is our real monetary system is a huge burden on energy. Like I mentioned before, what is the carbon footprint of quantitative easing? We have these artificially low interest rates and printing all this stimulus and all this other stuff-

Alex Gladstein (01:50:11):

Or just the US military alone. I mean, the US military is the largest consumer of fossils in the world, so-

Nate Hagens (01:50:18):

By the way, I really respect the fact that you use the semantic term of fossils as opposed to fossil fuels.

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Alex Gladstein (01:50:27):

Well, I mean-

Nate Hagens (01:50:27):

Because we name them fossil fuels, that adds power to us using them as fuels, but go on.

Alex Gladstein (01:50:33):

Yeah, the point being that Bitcoin is an experiment. I mean, I think it's going to succeed, it could fail for a variety of reasons, but it's small, relatively today. But what we've seen is that for macroeconomic reasons, it uses primarily energy that's wasted or stranded, and this tends to be increasingly the renewable for now. And I think that's really interesting because the US... It's a lot cleaner, it's a lot greener than the US energy grid, by far. So it's funny that New York Times loves EVs, even though the human costs of, as you've pointed out of electric cars are egregious in terms of where you get the rare earths and stuff are. But then they attack Bitcoin mining machines. I mean, a Bitcoin miner is an electric car, it's just a user of energy. A Bitcoin miner is just, is only going to be as green as what energy is used to power it.

(01:51:29):

And guess what? Bitcoin miners use a greener portfolio than EVs do. So it's like, I think people just miss that point, it's very important. Bitcoin mining itself has no emissions. It's the energy that's used to power it. So we have to look at what exactly is powering it. And what's really amazing, what I'll just say that I think is important is that never before have humans been able to take advantage of stranded energy for economic purposes in the same way. We tend to settle on rivers along places where we can power and electrify. So you have all this stranded geothermal energy on the western coast of the North America, South America in the Rift Valley. You have potentially OTEC in the oceans. None of this made any sense to harness because it was always far away from where people lived.

(01:52:18):

Now, where the Starlink and Bitcoin miners, you can just take advantage of that. You can also very importantly, make a lot of money mining Bitcoin off of methane emissions from both gas fields and landfills. We're just starting to uncover what that's

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going to mean. But basically, Bitcoin could run for the next 50 years off of landfills alone, off of just the emissions of landfills alone.

Nate Hagens (01:52:43):

So what you're saying is-

Alex Gladstein (01:52:45):

But we're not technologically there yet. Over the next 10 years, you're going to see companies and entrepreneurs start to figure out how to mine Bitcoin off landfills and off of methane emissions and in jungles and in the middle of the ocean, none of this has happened yet. It's all starting to emerge.

Nate Hagens (01:53:04):

Is does it assume all that advanced technology that might turn waste into a potentially stable currency alternative in the future, does that require higher and higher Bitcoin prices to manifest?

Alex Gladstein (01:53:22):

Yeah, I mean, I look, think that overall, yes, if Bitcoin does not increase in value to a certain extent, it's going to be hard to economically make things work. I think that Bitcoin will become really valuable for the two reasons I laid out earlier because of de-platforming and devaluation. I think people are going to want an open neutral currency. I think that that's going to... People are going to really want that in the future, people already wanted it a'cross the global south. Now here's the thing, so let me give you a micro example that helps color my thinking on this. A friend of mine, his name's Erik Hersman, he's out in Kenya, he's born in Sudan. He's a entrepreneur there. He started a company called Gridless. And what they do is they do... Originally it had nothing to do with Bitcoin, it was micro-hydro-energy grid stuff.

(01:54:11):

So they go to a village that has a stream running through it, they bring in a micro hydro, they drop it in, they run a little tube, they put a fish guard on it, the water comes back, zero environmental impact, and now all of a sudden the town has cheap energy. Now, typically, who's going to make the investment on that? And how are you going to make money on that is the big question. So they've figured out that Bitcoin

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mining is how you make the money. So you come in right away, you mine Bitcoin and you start making money and the town gets electricity, which it doesn't have, and it gets it way cheaper than it otherwise could. And the company that comes in the investment doesn't have to be Bill Gates. They're not altruistic, they're making money also. So what you're going to start seeing in East Africa with the Gridless and other companies are huge tracks of people who've never had electricity before coming online as a result of Bitcoin mining, because there's no other thing in the world that can harness that energy the same way.

(01:55:09):

It is a very unique type of energy consumer, and the other thing that's really cool about Bitcoin is... 'Cause I'm interested in energy grids, it's the best demand response technology we've ever seen because of the way that it can turn off precisely, perfectly, anytime. It's not like a steel factory where if you turn off for too long, the steel will set, you have to... These Bitcoin miners can turn off on a dime like this. So what I think going to end up happening is a lot of these grids are going to have overbuilt renewables doing Bitcoin mining, and then that can just shift into whenever the grid operators need it, you're seeing this in Texas already, which is really interesting.

Nate Hagens (01:55:50):

So I have 20 more questions, but I think we're going pretty long. So let me hit the high questions and then maybe you could introduce me to your friend, Erik to talk about the energy and you could come back-

Alex Gladstein (01:56:07):

Totally.

Nate Hagens (01:56:08):

To take a deeper dive in this. So I now understand the logic on monetary, sovereignty and open societies and freedom and monetary colonialism and some of those issues. I have long understood and been aware of the demise of fiat currencies from a limits to growth perspective. But isn't what you're describing a serious threat to national governments currencies and fiats currencies especially exactly at a time when they're becoming insolvent.

Alex Gladstein (01:56:45):

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So I think first and foremost, it's a threat to dictators because if you think about what Bitcoin is and what America is premised on, it's really like three things, free speech, private property and open capital markets. And Bitcoin exemplifies those things. It gives anybody in the world private property, real private property, not private property, that you have to rely on the government to protect. You can protect it with math. You can actually own something that you can pass on to future generations with math. This is a huge revolution. You don't need ID, you could be anybody in the world. It gives you private property, it gives you free speech. No one can censor your Bitcoin transaction, which now is powering social networks, by the way, Nostr is the big one that I'm following that's really interesting. And it also is 24/7 available, it's an open capital market.

(01:57:34):

China, the CCP, Putin, they need three things. They need censorship, confiscation, and closed capital markets. They cannot power the Yuan or the Ruble without these things. So I think at first, yes, dictators will like Bitcoin 'cause they can go around sanctions do this stuff, but ultimately it's a disaster because it moves power of the economy, of the money into the hands of the people and away from the government, that's really bad for dictators. My optimistic view is that it's really good for democracies. A good democracy should be okay with people having power, with people having power over the government, with the government serving the people. So I think what ends up happening is some of our excesses in America get paired back. For example, like social welfare is paid for by taxes in America, it's not paid for by borrowing. So if we all of a sudden had a Bitcoin standard or whatever, we wouldn't have any problems paying for social benefits.

(01:58:29):

We'd have problems paying for wars in Asia, that's what we'd have problems paying for. And you know what? Maybe the citizens would've eventually say, "Screw that, we're not going to have wars in Asia." So I think that there's a lot of nuance here, but I'm very hopeful about a system that has a little more restraint to it. I think that we've taught ourselves that we need this flexibility, but what does the flexibility give us? I mean, it's created a monster. I mean, for the average American, this system since post '71, political economy has not been great. But if you're in the 1%, it's been amazing. So yes, they will fight it, 100%.

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Nate Hagens (01:59:07):

Well, this gets to another one of my questions is if Bitcoin... Let's just say, I've told my friends this for a long time, that I think there's a 50% chance that Bitcoin goes to 500,000 and a 50% chance it goes to zero. But in the case that it does go up astronomically, like 20, 30, 50 X from where it is, doesn't the Cantillon effect apply here in spades? In that those early adopters of Bitcoin will be trillionaires, so there is a serious wealth inequality in the world?

Alex Gladstein (01:59:42):

So that's a really good question that I've thought a lot about, and I think that's one of the reasons I spend a lot of time advocating for communities that I care about, to learn about Bitcoin. I never say to buy Bitcoin, I say investor your time in it, learn about it. If nothing else, it teaches you about money and about the world around you, which I think is really helpful for people. I think that ultimately it is going to reduce some of the grossest inequalities we have. Like I told you, it's not a redistribution of scheme. Tax policy for governments is going to have to change. It's going to have to be more like consumption tax. It just is.

(02:00:26):

But for example, the whole system we were talking about for the first hour of this conversation is predicated on one country being able to mint the reserve currency. If Brazil wants \$30 billion and we are allied with Brazil, it's paperwork, we'll just give them \$30 billion. If Bitcoin is a reserve, we have to be like, wait a second, who's Bitcoin? It becomes much more of a careful thing. We have to be much more reasonable about it. We have to be more prudent about it.

(02:00:53):

I think that it introduces a lot more caution to what governments do with their spending. It ties them to their people a lot more. One of the reasons why we had these wars in America that have been really destructive I think to our country over the last 20, 25 years is because the government doesn't have to tax that for them or do war bonds.

(02:01:14):

World War II was almost entirely paid for by direct taxation that citizens knew about or by war bonds. So Americans bought the equivalent of three or 4 trillion of war

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bonds. Something like 80 million Americans bought liberty bonds during World War II and there was a draft and taxes were very high.

(02:01:32):

Okay, fast-forward to today. No draft, there are no war taxes and there are no war bonds at all. So it's all paid for on the credit card. That's very damaging to democracy. Even philosophers like Kant knew about this. They said, "If you borrow to fight, it's not good for your country."

(02:01:49):

So I think our system is just out of control when it comes to this sort of thing. It needs to be pared back a little bit. And I think your work on how our credit system has become completely detached from the world around us is one of the reasons you see so much destruction and inequality.

Nate Hagens (02:02:06):

Could Bitcoin survive a great simplification?

Alex Gladstein (02:02:12):

When I sat there and saw your last presentation, I was thinking to myself, this is kind of what it looks like. I mean, I think it could happen at the same time because I think what the great simplification is on one level and in your terms is directly related to fossils and the bubble coming down, but it also represents the collapse of sovereign debt.

(02:02:36):

One of the things is this, you got whatever it is, \$80-90 trillion of sovereign debt, \$50-60 trillion of corporate debt. You have \$150 trillion plus debt market. The problem with so much of that debt is that it's what I would consider odious. Odious debt is debt that is borrowed by a government without the population consenting. And so much of what the IMF and World Bank lent to the world over the last 50, 60 years has been odious to dictators to corrupt government officials.

(02:03:09):

Now there's not as much direct borrowing from the IMF or even from China. It's still really important. It's half of the debt - 60% of the debt of the Global South is still

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borrowing - but 40% is bonds. But that's just the government selling out their people, selling out the future of their people.

(02:03:31):

So between bonds and debt, it's just this enormous amount of odious debt. I think that has to unwind one way or another. It's not going to be pretty difficult. I think that unwind will coincide with your simplification, but I think ultimately we will have debt, government debt. Governments will always be able to borrow.

(02:03:52):

We're going to have community debt, we're going to have municipal debt, we're going to have corporate debt. But it will have, I think, a much less exaggerated role in the world. And I think more will be done with value for value, local community, peer-to-peer transactions.

(02:04:05):

I think that the ingenuity that gets unlocked by the whole world being on the same currency standard is incalculable. I mean, today, the wage disparities that happen and the exploitation that happens because of the different currencies is unfathomable. And if we were all on the same currency, wow, I just think it would make such a massive difference.

(02:04:26):

I'll give you one small practical example. If you want to send money to Nigeria today, the government imposes a fake rate of 450 naira per dollar. Naira is the currency they use there. If you send to Western Union, your recipient only gets 450 per dollar, but the street rate is 750, meaning the government steals 300 naira per dollar for every dollar that goes.

(02:04:45):

You send Bitcoin, your recipient gets the actual full 750. Imagine if all of a sudden we had an equal world where we were all using one currency. I mean, I think that's the vision. It's going to have a cost, a big cost, and one of those costs is going to be energy. The question is what kind of energy does it use? That's an open question. I think that things like OTEC are so fascinating to me.

Nate Hagens (02:05:11):

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If I'm a US government treasury official becoming aware of the things that you've said here, I would be quite scared. Can the government shut down Bitcoin or its usage the way that FDR did with gold? And how do government central bank digital currencies fit into this conversation?

Alex Gladstein (02:05:33):

Yeah. Well, remember when I said that Bitcoin has 2,016 blocks, and then there's an adjustment in its difficulty. That's 6102 backwards, meaning Executive Order 6102, which FDR passed to outlaw gold. Satoshi chose April 5th as their birthday. April 5th is the day that FDR passed 6102.

(02:05:55):

I think there's a lot of evidence that shows that Satoshi was trying to create something that couldn't be taken from the people. So far so good. I mean, I think it's very unlikely that there's some sort of network attack on Bitcoin. What we're seeing, which is much more likely, which we've seen for years, is attacks on Bitcoin users. So you're going to see governments make it illegal, governments tax it, do all these things. I think that's much more likely.

(02:06:22):

But at the same time, you have game theory. This is a rival risk world. You're going to have some of these small nations, and I've been very critical, I'm one of the few prominent Bitcoin voices that's very critical of Bukele in El Salvador, but I'm not critical of his Bitcoin law. I'm critical of his authoritarianism and his prison industry stuff. I think that-

Nate Hagens (02:06:40):

How did that work out, by the way, when El Salvador linked their currency to Bitcoin? It was like twice as high as it is today.

Alex Gladstein (02:06:46):

Well, okay, so first of all, I think it's exaggerated the role Bitcoin has played. Basically the government has said it's bought some Bitcoin. They use dollars down there. That's one of the reasons he did it is because he's not sacrificing anything. He doesn't control the monetary policy, the Fed does, and he doesn't get bailouts.

(02:07:02):

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So I think it was a good idea for them to push Bitcoin as something that people can use, but ultimately it's had a pretty limited effect in the country. It's not something that's really taken over. But the-

Nate Hagens (02:07:14):

The more broader question is we've had some 80% and 90% drops in Bitcoin three or four times at least.

Alex Gladstein (02:07:20):

Sure.

Nate Hagens (02:07:21):

And if that continues in the future, and we have countries that are linking financially poor citizens of the world, it can't have such a swing in their property. What do you think about that?

Alex Gladstein (02:07:41):

One possibility is that we could go to a kind of a Bretton Woods system with Bitcoin eventually. I mean, you're already starting to see countries start to go back to gold. This is clear. You read the FT every day. There's more countries trading with gold, buying gold, selling debt, moving away from fiat, going back to gold.

(02:07:59):

Okay. So I think it's possible you could see governments start using Bitcoin as a savings instrument for reserves, but I think we're pretty far away from governments and big banks and stuff like that and people using Bitcoin as a currency. I think that that's pretty far away, and I think that that probably just doesn't happen until Bitcoin is less volatile, which I think will take a long time. I think these things naturally fit together.

(02:08:24):

You're right, I'm not going to use Bitcoin as my daily currency if it's fluctuating like that. It would have to chill out. It has to get bigger. Look, think of it this way. At its peak, Bitcoin was like a trillion dollars at its peak when it was like 69,000 or whatever. Gold is 10 trillion. The gold market moves, but it's not like Bitcoin. A 1% change in gold is a big deal. Bitcoin just moved like 3% today.

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(02:08:50):

But if Bitcoin was 10 times bigger, it's going to be a lot less volatile. And the bigger and bigger and bigger it gets, the less volatile it gets. This is just, I think, to me, kind of straightforward. If it does succeed, it ends up getting less volatile, more people use it, it becomes more acceptable. But you started with zero, and if you're going to go from zero to world reserve currency, it's not going to be a straight line. It's going to be a rollercoaster.

(02:09:15):

But I don't know. We'll see. I think the geopolitical outcome of Bitcoin is totally like who knows. What matters to me as a human rights activist is that it's an incredibly important tool for activism. I think for environmentalists and for people concerned with energy, all eyes have to be on the dynamics of the energy consumption.

(02:09:33):

What is it consuming? What is the trajectory? And if you want to actually get involved and make a difference, how can you help? Because this thing's not stopping. The way to kill Bitcoin would be to issue sound money that's not going to be devalued ever again and it's not going to be censored. That would kill Bitcoin-

Nate Hagens (02:09:56):

Or take down the internet.

Alex Gladstein (02:10:02):

If the internet goes down globally for 24 hours, the Bitcoin just doesn't move anywhere. Doesn't kill Bitcoin. We'd have to live in a world literally without internet, which just seems very impractical. But if governments were responsible, then you wouldn't need Bitcoin and it would die. People wouldn't feed it energy. But until that day, people will feed it energy. So the question is-

Nate Hagens (02:10:27):

Governments are never going to be responsible, I don't think.

Alex Gladstein (02:10:29):

Exactly. Why I like the perspective of environmentalists like Daniel Batten is that they're proactive. They've seen what Bitcoin does, they understand the value

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proposition. They know it's going to grow. So they're saying, okay, how can we seed investments so that people start to realize that they can make a lot of money mining Bitcoin off of landfills and off of methane and off of renewables instead of fossils. I think that's a rational way forward if you care about this. That's just something I care about.

Nate Hagens (02:11:00):

Let me ask you one more Bitcoin question, and then I'm going to get into closing questions. Congratulations, Alex. This will be the longest podcast I've ever done.

Alex Gladstein (02:11:10):

It's been a lot of fun. By the way, just to say I'm so appreciative of your open mind and your willingness to talk. It's really fun, and I really, really respect that. So thank you.

Nate Hagens (02:11:19):

Dude, I'm trying to figure it out. Everyone has a piece of the story and I'm learning. I started this podcast to share knowledge with the systems ecology network I had, but in doing this, I've learned a ton from people like you and others.

Alex Gladstein (02:11:37):

I saved this piece. We have to mention this. I don't know if your listeners know what OTEC is, but it's a way to harness energy from the different thermal layers in the ocean. It really hasn't made sense because how are you going to get the energy from a barge out in the ocean to the land where people need it? So it's kind of just been this idea. It's not a new idea. I mean, it's been around for a long time.

(02:11:59):

But now think with Bitcoin mining. There's this guy named Nate Harmon. He's got a project out in Hawaii where OTEC is... Basically, where has there been exploitation in the tropic seas? That's where OTEC makes sense. That's where it works. Doesn't work with cold water.

(02:12:15):

It's so perfect as a serendipity thing that you could have these OTEC farms, which are just these boats or barges with a liquid in a U-shape, and it just moves the liquid and

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it powers. You could have this all over the Global South creating electricity, and it could be bootstrapped by Bitcoin mining. Bitcoin miners would be the first customers of all these OTEC farms. Then eventually they would connect it to the land and power everything else.

(02:12:44):

I think the role of Bitcoin as a bootstrapper for new experimental renewable energies is really important and really interesting, and there's nothing else that can approximate that. Anyway, I just wanted to leave that kind of hopeful message out there before we go to the conclusion.

Nate Hagens (02:12:58):

Well, building on the hopeful message, just so that I can visualize what you're visualizing, pick a date 15, 20 years from now, and how does Bitcoin change or improve what I view, and I think you view, as a post growth world that we're going to have a warmer temperature? There probably will be, I mean, probably the middle of the distribution, there will be more humans. They will probably be materially poorer on average than today-

Alex Gladstein (02:13:34):

Yes, yes.

Nate Hagens (02:13:34):

... because we'll be on the downs slope of the carbon pulse. There will be international migrations and political upheaval and all kinds of things. Paint a picture of what that looks like, that future where Bitcoin is much more prominent than it is today.

Alex Gladstein (02:13:53):

I think Bitcoin is the lifeboat, not the iceberg. I don't think it's a magic panacea. I think it's a practical tool that people can use voluntarily. No one could force Bitcoin on you. In fact, they're going to try to force you away from it. If it works for you, you can use it. And if you're a business person or an entrepreneur or an engineer or just somebody who needs to send money home from your job, you could use it. It's a tool. It's a practical tool that listeners should learn how to use and should educate themselves about.

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(02:14:24):

I think it's not going to save us from what I really believe will happen, this sort of simplification type thing. I don't know how much of it is related to financial crisis versus an energy crisis. I mean, obviously they're very tied together, but I do think we're in a bubble and that bubble will unwind.

(02:14:40):

I think that the majority of the world's population already knows what that feels like and we in the West don't. Sri Lankans know what that feels like because they're experiencing it right now. It means you wait three hours for gas at petrol stations. It means that your currency goes to zero. It means that you don't have any food. It means that people starve. Now, we have not experienced that in the west in a long time, obviously, except in Ukraine, I guess if you want to say that's a western country, because we've sheltered ourselves from that. I think that could happen here, but that doesn't mean Bitcoin won't be a valuable tool for everybody.

(02:15:15):

Again, I think it's a lifeboat, it's a tool. You should learn how to use it. It'll be really useful. I think it's going to be valuable because things could get difficult in this next 20, 30, 40 years, I think. What it will do is it will preserve value over time and will allow you to do what you want to do.

(02:15:36):

I know that there's a lot of right wing crazy stuff about central bank digital currencies around there these days, but a lot of it's true. The governments do want to control your energy and food consumption, and they want to prevent you from buying certain things. And they're going to do that through digital CBDCs, and Bitcoin is the alternative. I mean, it's the plan B.

(02:15:55):

I think, again, it's not a panacea, it's not some magic wand thing. It's a tool. It can be used for good, it can be used for bad, but it will transform the world. So I think people should really educate themselves about it. Yeah.

Nate Hagens (02:16:08):

The CBDCs, that would be another conversation topic.

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Alex Gladstein (02:16:12):

Totally.

Nate Hagens (02:16:13):

Because I do think we're headed that way, and I think you're right.

Alex Gladstein (02:16:15):

Oh yeah.

Nate Hagens (02:16:15):

It's because they want to control the money supply, and then they could go negative interest rates and it wouldn't have the crazy impact on our current financial system.

(02:16:25):

Okay. This was awesome. You're a follower of this podcast so you know what's coming next. A few closing personal questions.

Alex Gladstein (02:16:34):

Sure.

Nate Hagens (02:16:34):

You are great simplification fluent, and you've thought about this and have been clearly working in this sector as a career choice. Do you have any personal advice to the listeners, not financial per se, but at this global time of meta crisis?

Alex Gladstein (02:16:52):

Yeah, I think as we move through this, it's so important to be empathetic and understanding with people who've already gone through a great simplification because they can teach us so much. So I would try to learn more about the third world debt crisis. Talk to people you know from the Global South. Learn about how did they get by? They didn't go anywhere. They're still there.

(02:17:16):

That's the thing about the simplification. I think it'll happen. It doesn't end humanity. It's a massive setback and it's going to be a tragedy and it's going to be really difficult, but we're going to keep going. Just like in Peru in the 1980s, they had a great

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simplification. It became twice as hard to earn the same amount of calories. And guess what? They survived and they figured out a way to thrive.

(02:17:40):

So let's talk to our fellow human beings who've already gone through the great simplification and let's learn from them. That would be the biggest piece of advice I could give you. And let's stop living in our bubble, our post '71 Western bubble.

Nate Hagens (02:17:55):

You're the first person that has said that, and I couldn't agree more. That is what I think is going to happen too. It's going to be a tragedy and it's going to be chaotic, and we're going to get through it. That's this conversation is how do we best get through that towards some saner more desirable outcome?

Alex Gladstein (02:18:13):

I can tell you, someone in 1980 in Peru would've loved to have 24/7 access from a phone to an asset that could not be seized or confiscated by their government. That would've been really useful. And that's the thing, whether it was political oppression, like my ancestors fleeing the Holocaust or whatever, or countless Syrian or Eritreans refugees I've met, like Afghans, people have not had an opportunity to bring their property and wealth with them or to preserve it in a time of distress until now.

(02:18:40):

And the number of people I've met who've literally brought their life with them through Bitcoin, whether it's on a flash drive or by memorizing the seed phrase, is pretty astonishing. And it's pretty cool. It is a way out. So at least I think it can help. I think it can help. At worst, it's a tool that's helpful. So we'll see.

Nate Hagens (02:19:05):

Wearing my systems ecology hat, I have to think about this more, but it does almost seem like Bitcoin could be one of another cans to kick in service of the maximum power principle. It will be good for those humans that adopt it but may not be good for the ultimate ecological overshoot. But I'm going to withhold my opinion on that.

Alex Gladstein (02:19:24):

I mean, that's very possible.

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Nate Hagens (02:19:27):

Yeah. What about young people? I heard a crying child in the background. How would you change your advice to young humans listening to this?

Alex Gladstein (02:19:39):

I think that young humans are going to get a lot of good advice. I think that the unique one I can give is I think that young people should learn about money. I think we can put Bitcoin aside for a second. When I was growing up, I went to a good public school in the United States. We didn't learn about money. We didn't learn about personal money. We didn't learn about credit cards. We didn't learn about the way banking system works. We didn't learn about the dollar abroad. We didn't learn about any of that stuff.

(02:20:03):

And you know what, it's just as important as all the other subjects you learn in school and it's not taught. So I guess as families, as communities, we need to teach our children about what is money, what is credit? I know there's different theories and people argue, but great, let's get our kids involved in those debates.

Nate Hagens (02:20:20):

Do you remember what I said at my lecture at Stanford when I was talking about money?

Alex Gladstein (02:20:27):

You said a lot of things.

Nate Hagens (02:20:27):

I said when I was 14, my dad had the conversation with me that was kind of awkward about where babies came from, which I already knew, but he never had the talk with me about where money comes from.

Alex Gladstein (02:20:39):

Yes, yes, yes.

Nate Hagens (02:20:41):

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Which none of us really know.

Alex Gladstein (02:20:44):

Yeah, and look, you want your-

Nate Hagens (02:20:45):

So I agree with you.

Alex Gladstein (02:20:46):

Look, some people, they believe in commodity money, and some people believe in credit money and it's fine. Just teach your kids what you know. I mean, it's important for them to learn, and then they'll pick their own holes and they'll find their own way.

(02:20:59):

But if you're 16, 17 and you've actually thought about this, I think it'll really help you get ahead. It'll help you plan your life. It'll help you be more responsible, especially when you can learn a little bit about interest rates and about borrowing. I think that that's really important. Yeah, anyway.

Nate Hagens (02:21:14):

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

Alex Gladstein (02:21:19):

Well, I'm biased. I'm a human rights activist. I care about freedom because I think it's so central, because without freedom, it's difficult for us to improve as humans, it's difficult for us to stop annihilating the environment. I mean, the stuff I've seen in my research and the people I've talked to based on authoritarianism in the Global South has led to an exploitation. I mean, it has led to just the enormous pillaging of natural resources. I mean, forget emissions for a second.

(02:21:42):

I mean, the environmental crimes that happened not only during imperialism, but just in the '60s and '70s and '80s alone in the Amazon, in West Papua and all these places is totally unspeakable. It happened because there's no rule of law in those places. I mean, these multilateral lending institutions, they like Suharto as a client because

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they're not going to have to deal with street protests or a supreme court. They could just deal with the dictator and that's it.

(02:22:12):

So I think freedom is so important because without freedom, we can't protect our planet. We have a program at the Human Rights Foundation called Defending the Defenders, where we support environmentalists from inside dictatorships. Now, most of them are in prison or you've never heard of them. If you're an environmentalist in Egypt or in Iran or in China, you are either dead in prison or in exile. You can't be an environmentalist in these places. So I think it's so, so important that we addressed freedom first and foremost, or at least in a conversation.

Nate Hagens (02:22:39):

I wonder if that's coming to the United States.

Alex Gladstein (02:22:43):

I mean, we could see it. I'm telling you. Again, Greenpeace, that's for another conversation. But Greenpeace in India was deplatformed from their bank a few years ago. It's going to happen to all environmentalists at some point or another. You will wake up and your money will be no longer working. You will find out very quickly as a non-profit organizer that if your money doesn't work, it's very difficult to do your activism. So that's why I like the fact we have a backup plan.

Nate Hagens (02:23:06):

That's why I want to get all these podcasts on record quickly. I'm mostly kidding. If you can wave a magic wand, what is one thing you would do to improve human and planetary futures? Or should I guess?

Alex Gladstein (02:23:26):

Well, I mean, I guess it's pretty obvious from the context of our conversation, but it would be awesome if all countries were liberal democracies. I understand that may be impossible, and maybe even my work points to the fact that liberal democracy can only exist if there's countries to exploit. I don't know. I don't know. We don't have a counterfactual.

(02:23:47):

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But I will say that I do believe in democratic peace theory more or less. I don't think that democracies like to fight each other for a variety of reasons, mainly because the people are holding the government accountable. And I think that if all nations were somewhat more democratic or liberal democratic, there'd be a lot less violence, a lot less exploitation, and we would address planetary challenges much better.

(02:24:09):

That's the wand I would wave is to turn all the authoritarians into Democrats. But I understand that that requires a total transformation of our own systems.

Nate Hagens (02:24:20):

And some of our psychologies, perhaps.

Alex Gladstein (02:24:23):

Yes.

Nate Hagens (02:24:24):

Yeah. Awesome, dude. So good to take a deep dive with you. I've recently chosen to do this format where I interview a guest for the first time and give them a mic to explain their passion and their expertise and their worldview. But if I had you back again, what is something, a subset of this conversation, what is one topic that you're super passionate about that we could take a full deep dive just on that one thing?

Alex Gladstein (02:24:58):

Yeah. I'll give you three quick examples that I love. Sorry. I mean, we'll just do it. I mean, one would be just going kind of more deep into the IMF World Bank thing. It's just such an incredible story, crazy story of how these institutions came to be and what they do and how they basically get away with what they do.

(02:25:15):

The second thing would be the French colonial currency. I would love to come on with someone, a friend of mine from Togo, for example, to help explain it to your audience. It's a shocking thing. It's a shocking thing that this thing still exists.

(02:25:29):

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The third thing is the Israeli Palestine currency thing. I did a really deep dive into this. What most Palestinians have told me they don't even know, is that when there were Nobel Prizes given out for the Oslo Accords, something that happened at the same time was called the Paris Accord, Paris Agreement, Paris Protocol, sorry, Paris Protocol. (02:25:49):

The Paris Protocol was an agreement that Arafat signed giving up all monetary rights for Palestinians. So they don't have their own currency, they can't have their own currency, they can't have their own central bank. They don't control any of the labor laws with regard to people going in and out with West Bank into Israel. That was something that they gave up to get political independence.

(02:26:07):

Now, we find out later that that's not a good trade-off. You need economic and monetary independence to be free as a nation. This is absolutely clear. Today, Palestinians use the currency of their occupier. Can you imagine how psychologically damaging that is?

(02:26:23):

I've met a whole bunch of Palestinians in Gaza. I spoke to a guy in Gaza over Telegram. He's really into Bitcoin. It's the only way he can get money from his family. It's crazy. So there's a whole bunch of Bitcoin stuff happening in Palestine. I think that would make for a really interesting episode, and I can bring on a friend from Palestine. Those would be my three suggestions. Yeah.

Nate Hagens (02:26:42):

Awesome. Lots going on in the world that I'm unaware of. It's a big story and a big challenge that we face. Thank you for all your work on human rights. Thank you for your time today. And to be continued, my friend.

Alex Gladstein (02:26:55):

Yes. Thank you so much, man. Really appreciate the conversation.

Nate Hagens (02:27:00):

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