

The Great Simplification

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[00:00:00] **Nate Hagens:** Greetings. This is Frankly 100. Holy crap. I. Time flies. And, I've had kind of a rough up and down week, which is probably the exact time to do an ask me anything, ask Nate anything, where I can just deeply reflect, I don't really know what I'm gonna say. I've got a list of questions here I'm gonna respond to.

[00:00:33] Wow. we're almost up to 200 episodes and a hundred frank's. I'll just start with this. I feel, I. A responsibility and a bond and a community with the followers of this program? I don't know many of you. I can read the comments and the emails, and the social media posts, but I feel a togetherness of observing, witnessing understanding, hoping, navigating the times that we're alive in.

[00:01:11] and there's something. Meaningful about it. it's a little hubristic to name something. Ask me anything, like my opinion really. is that important? But I think those of you that have followed this program for a while know that I'm gonna show up and I'm gonna be honest and authentic and try to make sense, of what's happening.

[00:01:37] so thank you all to, submitted questions, in our substack and emails and LinkedIn and I'm just gonna choose a few of these, and answer them.

[00:01:59] Can you give a hot take on Iranis Israel USA situation with respect to the energy and geopolitical implications? Today is Monday, June 23rd. It's in the evening, and this will come out, on Friday in four days, and a lots could happen. here are some hot takes. Number one, I learned my lesson, early on in the Ukraine, Russia situation, not to believe everything in the media.

The Great Simplification

[00:02:27] And I think there are, smoke and mirrors and smoke. on this, I am told that the uranium was, moved ahead of time and that the nuclear capacity, first of all, of making bombs wasn't really there. And secondly, it wasn't really destroyed. so some of this was show, and maybe, the US President wants to win the Nobel Peace Prize, or, some such.

[00:02:57] but the stakes beyond, the surface stakes between Israel and Iran are deadly serious, both for that region and the world. last year I did a, frankly on. The Strait of Hormuz, 30% of the world's exportable, which is different than just total oil, goes through the strait. yes, there are claims that it could have mines that are swept and cleared and, no impact on traffic within a week.

[00:03:28] I don't know if that's true. but there's other risks as well to energy. If there were attacks on refineries or pipelines or things like that. At this point it does seem that the Western military, dominance, and oil going down so much today seems to say that there is no major risk, at least in the near term.

[00:03:55] But I think in the longer term there's a much bigger risk because the United States, Unilaterally without the UN Security Council or anything went and did this, they did it without congressional approval. I think bricks, nations generally are increasingly, choosing sides against the us, uk, and Israel.

[00:04:18] I. Not only in oil and things like that, but in broader coalitions of trade partnerships. And it does seem at the 11th hour here, late in the imperialist game, that power and military and dollar hegemony are looming large. So I don't know what game is afoot here. the great game of power, I don't think the markets can price in, Hubris or hate, or second, third, and, order effects, which we're gonna see, over time. okay. Next question. Hello Nate. When we think in terms of the Superorganism, we seem to pretend humanity has a certain homogeneity, which is not true. Using averages, we disregard the fact that energy and resources are being captured by a very small portion of humanity.

The Great Simplification

[00:05:10] Only this small portion is behaving as a Superorganism. It seems to me I am uncomfortable with averages. When discussion is about human consumption and human population, it may hide the unsaid assumption that the standard of living of the rich is not open for negotiation. What are your thoughts? I kind of disagree with that.

[00:05:30] I think the Superorganism is the system not the rich. and if the rich were somehow replaced, as long as we had this amount of energy surplus and the infrastructure and rules some other. Amount of people would replace, the current rich. One of my favorite videos, which I show to, I used to show to my, college students was Robert Sapolsky, giving a story of the Kiko Rock, baboon tribe.

[00:06:04] It's a fascinating story where the dominant males in this baboon troupe went, and scavenged and ate tuberculous, tainted meat, and they all died. So almost half of the, baboons in this troop died, but all of the dominant males died. And what ended up happening in immediately and in subsequent generations, so it was a cultural transmission, is there was much less violence, much more grooming, much more, alliances and cooperation.

[00:06:38] I don't think that can happen with humans in our current structure. I think a lot of people seem to believe that if we just get rid of the rich and the psychopaths in power, that things would just gravitate towards the better side of humanity. And I do agree with, the questioner here. That the Superorganism does not represent who we are as a biological species, but it does represent who we are in large numbers with access to, energy surplus.

[00:07:13] So, I think the, the inequalities are, going to. Probably accelerate, in the future. And I know that's not a popular thing to say, but until the energy surplus, at least locally and regionally is much less, I think this accordion kind of, pulls, this Superorganism dynamic, forward.

The Great Simplification

[00:07:41] Next question, what will AI's impact be on peak oil? Do we think that AI is developing so fast that it becomes an existential threat before it loses its energy source? Or do we think that when energy rationing becomes a reality, AI will take priority over poor people in inner cities who need air conditioning and food production, et cetera?

[00:08:05] A lot to say on this, actually. I could do a whole, frankly on this. Here's the kind of preliminary thoughts. Peak oil still is November, 2018. We've been, a couple million barrels below that, in actual. oil production. Peak oil is a combination of supply and demand, and I never believed the peak demand scenarios put forward by the IEA, that we're just gonna go to electric cars and not need oil, because that doesn't reduce our demand for oil, it just reduces our demand for gasoline.

[00:08:41] So we have to look at the supply impact of AI and there is, increasing advanced tech sensors with the drill bit and the drill pipe that uses data from the cloud to steer and calibrate frack pressure that maximizes the oil, in production in these areas. And the result of that is what? Happens is it took hours to complete.

[00:09:07] now is adjusted in real time simultaneous. And so over the course of the year, it saves an ENP firm, like one and a half rigs on a 15 R rig count. so it's like this boost in efficiency and a reduction in cost. However, that's, running into, you know, depletion. I think the Permian rig count could spike one more time if we get to 80 or \$90 a barrel, but not for long.

[00:09:39] And that's it. So the next supply, is gonna be a great migration north to the shales in Alberta, the Montenev and DuVernay shale plays. So I don't think that. AI is going to dramatically increase the supply of oil. However, and this may be, both paradoxical to hear from me and an uncomfortable, truth.

The Great Simplification

[00:10:06] I think AI will paradoxically cement peak oil. Because I think the bulk of the population, maybe 50% of people in the coming decade will have their jobs and their incomes. Minimized or removed from ai. And so yes, there will be some rich people and some productive areas of society, but the bulk of the middle class, will no longer to use a Eddie Murphy phrase, be able to afford the GI Joe with the kung fu grip, nor summer vacations, nor a lot of basics that we, take for granted.

[00:10:48] And so I think actually Ai. Partially because it will move the demand for energy towards electrons in away from liquid fuels, but mostly because it will change the affordability for a large swath of society to have everyday access to hundreds of fossil helpers. I think AI will cement peak oil because it will reduce the affordability of this energy.

[00:11:14] And if that reduces the price of oil, it will then really lock in the red queen scenario on shale and some of the other, double digit decline rates on existing fields, and it won't be profitable enough to access, tertiary technology and other fields. the other parts of the question, do I think it becomes an existential threat before it loses its energy source that's gonna be a race?

[00:11:40] I think we're actually much further away from artificial, general intelligence or artificial super intelligence than, people believe. But I do think eventually we'll get there unless there is some systemic disruption. And I personally expect a systemic disruption, before then because of the complexity and fragility and geopolitics and credit and all the things we talk about.

[00:12:05] I do think that we will, prioritize access to, power. And energy and electricity for AI over poor people and basic needs. And I, think that's clear. It's gonna happen. But the AI power demand is crazy. Our electricity use has been going up 30%, a year for the big five, tech companies, and that's, expected to continue through 20.

The Great Simplification

[00:12:38] 28 or so when the amount of just electricity increase from 2027 to 2028 will be more than all the solar, capacity added so far. I'll put a reference, to that. Okay, next question. Some of your guests, for instance, X, seem incredibly naive on the systemic issues we face. Why don't you push back more on statements that ignore, for example, finance energy nexus or the coming climate instability.

[00:13:14] This is hard for me as a host because I agree with you. many of my guests, I find myself biting my tongue 'cause I disagree or think they have a narrow boundary, view on things. But if I did that and I interrupted and tried to tell the whole systemic story of The Great Simplification on every podcast, a every podcast would be four or five hours long.

[00:13:38] B, we would, Not get to know that person's personal expertise and things to offer that I don't know. that's what I wanna do is platform people that I disagree with, that have some knowledge that contributes to, this, curation of, topics. So, but with that I have something additional to say, which is, here's my plan going forward on breaking up the podcast into four categories.

[00:14:13] The first category is our bread and butter, which is natural sciences, earth science. I don't expect these people to have the solutions to our problem, but I do wanna understand if fish are swimming poleward or that the forests act as a biotic pump, or what the planetary boundaries are. We need to understand those things as threatening and scary as they are without having, solutions per se.

[00:14:40] But as humans, they, have interesting things to, to offer on, solutions. So that's category one. Category two is the biophysical macro of how energy, money, geopolitics, credit, the economy, all that fits together. Category three is, brain and behavior because I do think we don't so much face an economic or an environmental crisis as a mismatch of our, ancestral brain with a wildly high.

The Great Simplification

[00:15:11] Consumptive smorgasbord of technology and, throughput. And I do think, philosophers and neuroscientists and grief experts and addiction experts and people on alcohol or grief, or dopamine or, all those things are relevant to our future. And then the fourth category is the what to do and the response at an individual level, at community level, at societal level.

[00:15:38] And I think that fourth category over time. will be a higher percentage of our guests, but I still wanna, spend time on those first three categories. Now, this is important. Some of our guests are going to be a hundred percent working on solutions that are relevant to our future, but they're not going to understand all the things that we talk about with the Superorganism of other things, and they don't need to, You know, no matter what happens in the systemic, brittleness of our society, we're going to need people that work on technologies that are better suited to a lower throughput, more regional, more local future on basic needs instead of doodads and Gadgets. Those people don't need to know all the things.

[00:16:31] it's, it's almost counterproductive to their lives and, their careers and their output to society if they wallow in, the nuances that are The Great Simplification. So, yeah, I'm gonna increasingly have people that don't understand the whole overshoot, story, but that are working on things that collectively will make a difference.

[00:16:57] Next question, Nate. Is it? Oh, this is a long one. Nate, is it possible this topic is simply just too wide lens for most people to address? Is it possible there's not time to educate the masses, to become systems thinkers, to enable them to see the forces behind the problems we face? Should we spend our time trying to find the right words to educate people about this?

[00:17:17] When it could take years for most to fully understand this, are we at a point we need to focus less on educating those captured by predominant systems and now work on solutions using those that ready see the big picture and

The Great Simplification

put humans in the earth before the goals of the super organism? The challenge I see with a transition to solutions is how to coordinate enough people and not to too broadly telegraph the ideas and action items.

[00:17:44] Yeah, I, see this. and so one of the things that I think many of you notice that I increasingly struggle with. Is in my, frankly, is in my presentations in the podcast, there's really four stories that are being told simultaneously, but, really two substantially different, willing ears. the first is the energy and system story of humanity.

[00:18:13] And this is just completely, prescription less and transpartisan and it's just connecting the dots of energy, ecology and the, evolved behavior of the human animal. This is for high schools, this is for colleges, this is for communities, but it's not scary. It's just look at the aerial view of the human animal.

[00:18:37] The second story is what I call the bend not break, which is holy crap, we have a lot of risks in the world. the metris and, financial and ecological overshoot and geopolitics. These things are quite scary. And how are we going to intervene, in the intermediate term the next five to 10 years when these risks start to, rear their, heads?

[00:19:03] This is scary and it's a totally different story and a totally different audience than the first one. the third, audience and story is, community and resilience and what do we do as individuals? I. you know, how do we become the cultural mitochondria of what comes next and all the litany of projects and things to do that is its own story embedded.

[00:19:31] And then through it all, I'm trying to advocate for a life ethic and I don't know how central it is to our decisions, but we are. Connected to the web of life. We are part of it. We are influencing it, we are being influenced by it. And I think just like, women and minorities didn't use to vote and that weren't part of our, our,

The Great Simplification

demographic that we consider as important, so to our, the others, other species on this planet, that we share this time with on this blue-green Earth.

[00:20:07] And. I don't know what comes from that, but I think to, continue to include the natural world, the non-human, natural world, in these presentations and discussions is important. and I don't know why other than it is I. Okay, Nate, I have a two part question. One, you have outlined many, perhaps dozens of risks to society's future over the years.

[00:20:31] After interviewing all of your guests and the learnings you continue to undergo, number one, can you share what three things you are most concerned about now in the world? Number two, can you give them micro version of this? What are the three responses from people you are most concerned about? I don't know that this is new.

[00:20:52] but I think the three things I'm most worried about in the world, are number one complexity, which is just under the surface. We have so many things that are imported and just in time. That comprise a larger hole of our drilling a well, or repairing a car, or getting a medicine. And, the little for want nail a shoe was lost for Monte Shoe, a horse for the, all the way to the kingdom.

[00:21:25] I mean. I continue to think complexity is one of our largest risk, and this happens also in the US government, and other governments. I think AI is another risk that a few years ago I, was more ignorant of and I think AI is gonna be a huge risk. Last week there was a report out by MIT showing the cognitive decline, already from people that, that use AI frequently.

[00:21:53] And I think, A couple weeks ago, I had a, frankly, nomenclature of the dissolved, which is people that continually just get sucked in and use AI all the time. I think it's gonna have a big impact on our wealth, and income inequality

The Great Simplification

and our behaviors. and more than that, and I don't fully understand it, but if you're aware here, I'm, increasingly having experts to talk about it.

[00:22:18] so I think ai. Is one of the big three risks. The other is probably the granddaddy of all risks, which is governance. I, and I don't just mean the US government, I meant how do we humans make, the right decisions in a collective actions sort of way in our communities, in our nations in the world.

[00:22:40] And I think governance, is at the root of many. Of, the benign pathways and the dark pathways ahead because a lot of the people that have gone up the hierarchy, self-selected in this, super normal sip stimuli, smorgasbord, of freedom consumption and things I. And maybe not the best suited, to make decisions on, the down slope person.

[00:23:10] people. The second part of the question, what am I most worried about? I, think it's, one of our ancestral carryovers of blame. I think when things get difficult is we naturally blame an outgroup. Instead of pausing, reflecting, taking some responsibility. I think blame is, one of the three that I would point out.

[00:23:31] I think apathy is another thing I increasingly worry about. the, time between not being concerned about the metris and then learning about it and then being unconcerned could be an afternoon in some cases. So I think apathy without agency and without community and without. people to navigate this with together.

[00:23:54] I do think apathy is, a risk. And then thirdly, I think partially because of AI and addiction and social media and, apathy and a lot of the things, I think anhedonia, is increasingly a risk, which is the inability to feel pleasure. and I think, when people get so addicted and down, a certain rabbit hole of, behaviors, they can't experience the joys, of life, which is why nature is so important to me

The Great Simplification

because when I've had a stressful week, like this week, I go and I spend time with my dogs or my.

[00:24:36] Animals or just in the forest and the delta between what our society says is the story and our real biophysical story. Humans connected with nature. The delta shrinks, but I do increasingly see this. Zombie-like appearance, in more people who are stressed, but also they just don't have the joy that we saw in our society 10 or 20 years ago.

[00:25:07] And this makes me sad, but it makes me, I. Observant, and maybe a little bit, v vigilant against it. Nate. So far most of the collapse where people seem to be frozen in fear, talking mostly about things that can go wrong, spreading more fear, doomsday is coming, is the most ancient prophecy that still hasn't happened.

[00:25:30] Shouldn't we have some ethics on that?

[00:25:35] Well, doomsday has happened, in Ukraine, and Syria. And Madagascar and coral reefs and, elephant, and other populations I could go on. yeah, I don't, know what I really think about this. I, do. I. Fully agree with the question that spreading fear actually makes us worse off than not knowing everything by not knowing anything.

[00:26:09] So I think if someone doesn't know anything about the metris and they're told this is gonna happen, this is gonna happen, this is gonna happen, can't you see? That is just a form of spite that you've actually made someone, more scared and more miserable than if they hadn't known anything. So I used to, I stopped speaking for like six or seven years because I felt like telling this story without having things for people to do was doing them a disservice.

The Great Simplification

[00:26:39] I increasingly want to offer direction on what to do, but the truth is I don't really know what to do. again, I don't know what the future's gonna be. I've got some scenarios. Some are more likely than others. They're emergent, they're changing all the time. Directionally we're gonna have to use less.

[00:27:01] There's probably gonna be more and wider poverty. The natural world is going to continue to be under more assault. so I think it, there are some common sense things that we can move towards, but I agree that spreading fear is, not, Helpful. and if this podcast ever gets to a point where that's what we're doing is spreading fear, even by just telling the truth, I'll shut it down.

[00:27:28] I don't think we're there now remotely. but I do appreciate, the question, the sentiment in the question. I. Sometimes you seem to be totally against renewable energy and other times you seem to suggest it is ultimately our only path. Can you be more explicit if you are in favor of solar panels, batteries, and green tech more broadly as a solution set?

[00:27:52] That's a good question. I am definitely in favor of solar, and batteries and renewables. But this is one of the reasons that the climate movement failed. And I think I'm gonna do it frankly. 'cause I think there's a lot of reasons the climate movement has failed so far. But one of it is just to keep everything else the same, just plug and play with renewables.

[00:28:15] And that was never gonna work. And that's why the tax credits are being removed. Any, you know, local people are not gonna be buying solar panels and EVs in the near future. I don't know the pathway given the metabolism of the Superorganism and how humans, act where we could have a society on 30 or 40 or 50% of today's consumption run, not primarily, but half, of renewables.

[00:28:48] And I don't mean electricity, I mean all of our energy. That I think is feasible. I just wish we could freeze society and figure out how to do that and then

The Great Simplification

re unfreeze society and move that way. So I am in favor of renewable energy because a hundred, 200 years from now, we will be on a hundred percent or close to it, renewable energy.

[00:29:11] It's just our consumption profile will look radically different than today. I think we need examples. I've had some on here, the 2000 Watts Society and he was working on, 300 watts relative to 10,000, watts of Living Energy Farm. I. There are examples in pilots, and we just need more of those to figure out what's possible and, how to get there.

[00:29:38] but I don't think it's gonna be just, let's buy renewable energy instead of fossil fuels, while the whole, economic, energy hungry amoeba, marches forward. I appreciate how in small and large ways you continue to highlight the importance of the natural world and earth's other animals and species in your descriptions and analysis.

[00:30:00] Do you think it matters at all? Well, I guess this dovetails, how I answered in an earlier question. I do think that the Superorganism has created a implicit hierarchy in human decisions, and AI and war and currencies and credit and energy and economic growth are way higher in the priority than human wellbeing or the health of our environment.

[00:30:28] As every year goes forward, every as every decade passes, the importance of the natural world will become more obvious to people. And at that point it will be too late to avoid, some of the built-in costs in the oceans and the climate. I do think it matters because it's the right thing to do. and I do think that many people in the world, most people following this podcast have a deep connection in their bodies to the importance of nature.

[00:31:03] I just, I think when we talk about a life ethic and, incorporating nature into our decisions, our behaviors, our institutions. our lifestyles, our values. This is

The Great Simplification

beyond the bend, not break, or maybe, simultaneous with it, if there was some sort of a, non renewable energy and material tax or something with the environment.

[00:31:28] It's not going to matter in the near term, because of the momentum and, ongoing phase shift in our, sociopolitical system. Having said that, I will never stop. Voicing my care and love for the non-human world and the other organisms, in the oceans on land. because they don't have a voice in our system.

[00:31:56] And I do think we are seeing with eyes wide open what is happening in our. Political governing body where these things don't matter at all. And I think that gives us a gut check and it gives us a chance to feel and then in the future voice and act on, on those, insights. Do you have any personal updates you can share, good or bad?

[00:32:26] well, I'll close with this. Not so much bad. I've, I felt some grief and, loss, of late, which is normal, for humans. Sometimes this all becomes a little overwhelming. you all can tune into this channel whenever you choose to, but this channel is kind of my life, and these topics can be, heavy at times.

[00:32:51] what good can I share? I did my first two bike races of my life. Not, rides, but. Races. and I didn't finish last, and one was 53 miles and one was 30 and I've got a 63 mile one coming up in two weeks, and it's good to kind of train and, look forward to doing that. but it's difficult, and, also rewarding.

[00:33:19] I have baby ducks that were born yesterday, three baby ducks, third generation of ducks. And I also have some in the incubator. And maybe by the time this is posted, I can take some pictures. Baby ducks have got to be one of the cutest organisms in, this wonderful earth and in the one in the incubator.

The Great Simplification

[00:33:39] I don't have any travel plans for the next two months. I may do the Conrad Lorenz thing and have them sleep in my bedroom and like truly bond with them and have them follow me around. It's a lot of work though, so I don't know that I'm gonna commit to that and I may hand them off to the real Duck Mama.

[00:33:57] I hope this was helpful, relevant, interesting. I have so many Frank's, written down that I wanna share that are relevant. A couple of the upcoming ones are, the seven implications of the Superorganism, the 10 Reasons the Climate Movement have failed, plea to Philanthropy, the 10 categories of interventions.

[00:34:27] And lots of great podcasts coming up as well. greetings to you, two days after summer solstice 2025. I hope you're all doing well at these. Amazing and perilous time that we're all alive. Talk soon.