

IU Daniel Audio

Thu, 6/3 3:42PM • 1:29:28

SUMMARY KEYWORDS

system, solutions, issues, create, world, human, based, daniel, problems, places, recognise, tech, government, people, risk, technology, power, exponential, maxims, kinds

SPEAKERS

Zoe Varenne, Sam Coleman, Daniel Schmachtenberger, Tom Pegram

Tom Pegram 00:01

Hi, and welcome to imperfect utopias based out of the UCL Global Governance Institute. This is a podcast about the challenges facing humanity, and possible global responses. If you're new to the show, and you want to get a list of our favourite books other resources, listen to past shows, and to join our community go to ucl.ac.uk/global-governance. We're really delighted to have Daniel Schmachtenberger on the podcast today. Daniel is a social philosopher, and co-founder of the Consilience Project, a non-profit media organisation that aims to catalyse a cultural movement towards higher quality, sensemaking and democratic dialogue. Underpinning much of Daniel's work is the conviction that strengthening individuals' abilities to handle and filter information is now a civilizational imperative, in a context of existential risk. I've been following Daniel on the polisphere for some time now. And he's definitely one of the people I check in with most often when it comes to trying to make sense of what's going on. And Daniel's work has also been a major inspiration for this podcast. So we're super excited to have you join us today, Daniel, thanks so much for making the time.

Daniel Schmachtenberger 01:29

Happy to be here. Thanks for inviting me.

Tom Pegram 01:32

And we're going to dive in lots, we could explore here. But first, I'll just ask our pod crew to introduce themselves.

Sam Coleman 01:40

So my name is Sam, I handle the audio and video and hopefully some of the thinking when I have time.

Zoe Varenne 01:45

I'm Zoe, I help with some of the research and more of the admin and social media side of things.

Tom Pegram 01:52

Okay, so Daniel, let's get straight to it. In a world of, as the UN recently put it, certain near term nonlinear change, how well prepared are we to face some of the existential challenges? And not just the say, the natural ones that people might think of like asteroid strikes, and those sorts of risks, which are certainly present, but possibly remote. But perhaps most challenging of all, and as we've discussed at some length, the human induced or anthropogenic existential risks like nuclear, but also biotechnology. And, of course, climate change, which arise out of these kinds of complex interactions of human and non-human systems, and which are, I'd say, already defining our times this decade, this century. And perhaps to put a little bit more meat on the bone as to where we might go with this discussion, we've talked before about how there is a risk that faced with major disruptions, our societies could potentially default in the direction of either authoritarian oppression or even chaos. And that some people do think that this is the direction of travel currently. So how can we best avoid, what can we do now to avoid that kind of dystopia by default? As our legacy structures, systems, governance systems as they falter, and there is that risk of major events sort of overtaking us?

Daniel Schmachtenberger 03:48

Alright, that's a few good questions. The first question you asked is, how well prepared are we to deal with the existential and catastrophic risks that are impending or at least have a non-trivial chance of happening? And you were mentioning that this is a frame that is recognised by the United Nations now. If we think of the UN, as a starting place to answer this in terms of the closest thing to something like global governance or you know, an intergovernmental organisation. Obviously, it was created after World War Two in the recognition that nation states by themselves weren't an adequate governance system to prevent World War. And now that we had weapons such that the wars between the major powers could never be fought and won anymore. We had to figure out a whole new world system to do something different than we had ever done in the history of the post Empire world, which was: how do you have the major empires, not fight wars? And we don't have a very good historical track record of that. But then we got to the place where you had weapons were the wars couldn't be won. And that was a different logic. So, I point this out because catastrophic risk that was human induced before World War Two was different in kind than after World War Two, because we didn't have any tech big enough to actually create global catastrophic risk from human action. That doesn't mean that catastrophic risk is not a part of our history, it was just always local. And not only was it a part of our history, it was what happened most of the time in the history of the lifecycle of civilizations. So we can see that, you know, if we're studying the Mayan Empire, the Incan, the Aztec, the Egyptian the Roman Empire, one of the first things that we recognise is that they all don't exist in the forms of their dominance anymore. They all either had sudden collapses, or gradual collapses. But the collapse of civilizations, the things that we call civilizations, is one of the most prominent features that we can see in history. And so you can see that people faced an existential risk to them in the form of a warring army or overconsumption of their resources or internal dissent, that was enough that it broke their capacity to continue to coordinate. It's just those were always local issues, maybe large locality if it was a large Empire. And those were both for environmental externality reasons like the first civilizations that over farmed and created desertification. It was a long time ago, right? Environmental overreach is a multi 1000s of year old problem. And short term solutions regarding rivalry that engender enmity in the sight of the other end, where they then reverse engineer whatever weapon innovation you had, and come back and you just drive arms races, they're escalating, that's also a very old process. World War Two is the beginning of

us getting to the place where the scale of our warfare, and then also shortly thereafter, the scale of even our environmental externality hit a global catastrophic possibility. So you see that we created an entire world system following World War Two to say, okay, we need to, we now have such incredible power, that we can't use in the way that we have previously, we need to steward that power differently. How do we deal with conflicts without war between the major superpowers? So the UN was created, the World Bank, the IMF, that whole kind of intergovernmental organisations that would be able to broker nation state interests to have solutions other than war, and the entire set of Bretton Woods agreements, Marshall Plan agreements for how we rebuild the world where the nations would be so economically interdependent on each other through trade and globalism, that it was more advantageous to them to continue to do trade with each other, than to bomb each other. That was a huge part of it. And where we could have so much growth of the economy that everybody's desire to get more could happen simultaneously without having to take each other's stuff, the idea that very, very positive, sum GDP situations could keep us from going zero sum conflict oriented.

Daniel Schmachtenberger 08:17

Well, that very positive sum, meaning extract resources that are unrenewable and turn them into trash much faster, driving GDP for a very short period of time, also meant we hit planetary boundaries. And so now we're seeing planetary boundaries, both on the side of depletion of unrenewable resources and the waste side, both sides of unrenewable linear materials economy on a finite planet, lots of different ones, right, we're not just seeing too much CO2, but too much plastics and ocean microplastics, and all kinds of things on the toxicity side, and all kinds of things on the boat, you know, overfishing, cutting down too many old growth, forests, soil micro diversity loss, microbiological diversity, loss, etc. So you can't keep doing the positive sum thing in that same way, that is based on the exponential growth of a linear materials economy, on a finite planet. That's one part of the kind of post-World War Two solution. It's kind of run up against an end. The other thing is that, that world system created a lot of fragility, right? Because when you have global supply chains, where most any of the products that we engage with now no country can make. They're made across six continents, this computer that we're talking on, this phone in my hand, when you factor all of the materials processing, the hardware, the software, the satellite infrastructure required for our communication to be happening. The positive side of getting the world very interconnected, was that we were less oriented to war if we had dependence, the negative side of dependence is you can get cascading failures. Right, if you get failures anywhere, then you can get failures that start to cascade. And we saw that with COVID, we saw that an issue in one province of China became a completely global issue affecting almost every sector of the world, that needing to stop the transmission of the virus in a much more transportation based world than any previous plague or pandemic ever happened in, also meant shutting down critical supply chains where fertilisers and pesticides that were needed for agriculture didn't happen: driving food insecurity at massive scale, and which means that the solution to one problem drove other problems second, and third order effects became, you know, very problematic. And so we can see that the interconnectivity that had advantages also has these fragility disadvantages, and the interconnectivity also wanted to have maximum efficiencies and the efficiencies also drive fragility. We also see that in that World War Two, till now-ish, kind of Bretton Woods time, we have one catastrophe weapon. And so the one catastrophe weapon could be responded to by that same catastrophe weapon. And so the game theory of it was somewhat simple. And for the longest time, we only had two superpowers that had it. And as a result, mutually assured destruction was very effective, you were able to create a kind of force Nash equilibrium. And

also, because it's very, very hard to make nuclear weapons. There's not that many places that have uranium enriching, uranium is difficult. You can even see it because of radioactive tracers from satellites, so it's easy to monitor. And so you could do mutually assured destruction. Obviously, we're in a situation now where we don't just have two superpowers that have nukes, we have many countries that have nukes. But we also have lots of other catastrophe weapons, meaning lots of other weapons that are big enough that they could cause kind of catastrophic loss of civilization harm. And they aren't hard to make, and they aren't trackable anymore. Right? Like, it's not hard to make CRISPR bio weapons or drone based infrastructure attack type things, it doesn't even take a nation state to do it. Not traceable. It's a very different situation. So when you have many different catastrophe weapons, and you have many, many different actors that can have them, including a very difficult situation to be able to monitor which actors, how do you do mutually assured destruction? And so how do you get the deterrence strategy, right? And so what I'm bringing up is that catastrophic risk before World War Two was one phase, all of human history up to that point, right, then World War Two till now was kind of one phase and now we're entering a new phase where the Bretton Woods mutually assured destruction IGO exponential growth of a globalised linear materials economy set of solutions doesn't work for the new set of the catastrophic risk landscape that we face. So we need a totally new set of solutions, which will require innovation in our social technologies of how we coordinate game theoretic type issues. Now, when you say how well prepared are we, we come back to the UN.

Daniel Schmachtenberger 13:13

We recognise that we have not succeeded in nuclear disarmament. Well, we kind of claim to succeed in nuclear disarmament in some very limited ways. We still had arms races of faster delivery mechanisms, hypersonic missiles, whatever to try to win first strike and other things like that. We got more countries with nukes rather than less, during that time. We got more other countries that could affect the movement of a new nuclear weapon through other kinds of geopolitical and less military advanced, but engaging the bigger military type tactics, plausible deniability attacks that get blamed on a larger superpower and things like that. And during that time, we've also had every new type of advanced technology create an arms race, there's an arms race on AI autonomous weapons, on the application of CRISPR technology to bio weapons, cryptographic type weapons for cyber-attacks. And so we have succeeded in preventing no arms races. We have not been able to reverse the one really critical one. None of the Sustainable Development Goals can really be said to have been achieved well. So I would say that our global coordination on all of the most critical issues is inadequate to the timeline and consequentiality of the issues that seems very, very clear. And as exponential tech is advancing, the total number of catastrophic risks and the total probability of each is increasing. And the capacities that we're utilising to address them are not increasing accordingly. So there is a gap that we need to be focused on, which is what you guys are focused on, which is this kind of global governance topic, we have global issues, not just local issues. Everybody's scared of global governance, the frame, the term global governance, or at least global government, for a good reason, which is we have a good, long history of reasons to not trust, consolidation of power, with no checks and balances. So nobody wants this kind of massive, unchecked global government. And at the same time, you have to have governance at the scale that cause and effect is occurring. And if we're having, if nobody can fix climate change on their own, in terms of nation states, and yet, they're all affected by it, and they can't fix overfishing, they can't fix nitrogen runoff, dead zones, and oceans and etc. There have to be global coordination solutions. Otherwise multipolar traps ruin everything, right? And multipolar traps being

some kind of race to the bottom arms race is an example, as we've already mentioned, Tragedy of the Commons is another example, but the key to both of them is where the agent focused on their own short term well-being does something that advances their short term interest, but that then makes everybody else have to do the same thing and where everyone doing it creates the maximally bad long term situation.

Daniel Schmachtenberger 16:24

And so if we try to create some treaty around not overfishing a particular region of the ocean, and anybody violates it, then why does, if anyone else doesn't violate the treaty, if they can't figure out enforcement, then you're just a sucker for holding to the treaty, right? Because all those fish are going to get killed anyways, the oceans going to get messed up, it's just going to feed another population that's going to grow and have more people to engage in economics and armies. And so, yet, how do you do enforcement on a nation that has nukes? Or a nation that has some critical aspect of infrastructure? Or, you know, or the globalised supply chain? And so enforcement becomes tricky. So then you get these types of things tragedy of the commons aren't an arms race multipolar traps, so you have to figure out how do we solve those coordination issues globally, because we have global issues that can't just keep getting pushed down the road. And yet, we want to figure out a solution to do it that isn't a kind of global government that becomes its own catastrophic risk of, under the name of some problem that is scary enough, we agree to some totalitarian power structure. And that's the thing you mentioned about Order and Chaos is that we can see that the thing we call civilization is a way of having some order, some coordination between lots of people, so that they can do specialisation and division of labour creating a richer world for everybody, and then coordinate all that they can coordinate their activity for, not just those kind of productive purposes, but also protection purposes. So the thing that we call civilization is how we coordinate behaviour of lots of people. And that's actually a pretty hard thing to do when you think about people that want different stuff and believe different stuff and aren't necessarily connected to or bonded to each other, like how do you get them to not just do the immediate advantageous thing to them, for people that are fundamentally strangers to them. So, typically, a civilization will try to create order through some kind of imposition, some forced religion, forced patriotism, law, whatever it is, and it can err on the side of in order to have everybody participate with that order becoming increasingly tyrannical, increasingly dictatorial. If it doesn't do that, people end up orienting towards tribalism naturally, and fragmenting kind of towards each other, and you end up getting the thing failing in the direction of chaos. The only other answer is how do you get order without it being imposed? How do you get emergent order, and this was the kind of idea of democracies and Republics and open societies, is maybe we could actually get emergent order, if we, and it was based on the idea of a culture, that invested in the people enough that the people didn't just believe different things and want different things and be willing to defect into war. You have to actually develop a people that could all come to understand the world similarly, can everybody understand the philosophy of science well enough that they can all come to understand base objective reality that they share similarly? Can they all have something like Hegelian dialectic capacities where they can notice not just their own values, but other people's values and recognise that only solutions that meet everybody's values will end up working? Can they understand things like multipolar traps well enough to understand that a short term win of my political party just means that whatever technique we utilise that was effective gets reverse engineered, the other side wins in the next four years and undoes everything that we did for four years and we get nowhere and then dictatorships do much better than us. And society

fails, can people understand those things enough that they don't orient towards the short termism kinds of things? So this is why the modern democracies emerged out of modernity, emerged out of a philosophic system that said, we can come to understand the world and understand each other well enough that we can actually have emergent coordination. Obviously, the world has gotten much more complex during that time, and the cultural value of that kind of education has eroded. And so the question, and I guess, here's the way I would frame up the current situation. One way that I'm looking at the current situation. This is a detour, but I think it's helpful. Go back to World War Two, and then bridge it to now since that was kind of the beginning of catastrophic level technology. One way of looking at World War Two

Daniel Schmachtenberger 20:58

is, and this is not the only way there's lots of ways, this is a useful way for the construction I'm doing. One way of looking at it is that there were a few social ideologies that were competing for supremacy, and they were, what they were competing over was the emergence of a new set of technologies that science made possible, that were so much more powerful than the previous technologies, that kind of whoever got dominance, and then would win. And so the bomb is obviously the centre of that, but it's not the whole of it. Computers, right, the Enigma machine and the whole development of computation, rockets. And chemistry, chemistry is a part of that kind of advancing in World War One, but then advancing a lot in World War Two, kind of those all came from science getting to the place that we could do like atomic physics and physical chemistry well. And the social philosophies, we could say, are capitalism and liberal democracy, the intersection of theory of markets, and something like a democracy or Republic; communism, the Soviets and fascism, and a particular kind of ethno-centric, nation-state fascism. So those were three different types of social systems. And we can see that Germany was actually meaningfully further ahead than the US or the Soviets in certain areas of tech, they got the Enigma machine first, they got the B2 first. Those other countries were obviously larger. So when they recognise that and thought to catch up, they had an advantage in that way. And we can say, and this, there's lots of problems with saying this, but for the use of the construction, we can say that the US won that competition for that war, those wars over the new technologies, and we did it not through the market, running the Manhattan Project, but the state running the Manhattan Project. This is actually a very, very important thing to recognise is that the state right, the United States recognised that it was an existential risk. And you remember it was Einstein and Szilard, I think the Einstein-Szilard letter that said: No, the physics we came up with really does say that a bomb is possible. And there's a decent chance the Germans know this, and they're working on this. We were doing the physics over there together.

Daniel Schmachtenberger 23:23

And so the idea that states don't innovate and that markets innovate, just not true, right? Like, historically, the ability to split an atom, which is really, in a way, the most impressive innovation, was done by the state, not by the market that was not out sourced or private-contracted. And the same with cracking the Enigma code. And the whole early development of computation that ended up then getting private contract and leading to Silicon Valley was nation state funded, the Apollo project, right? And it kind of stopped with the Apollo project for some important reasons. But what happened was, the United States recognised that the technological advancement was going to determine who had the power to determine the world so much that there was an existential risk for them, that they created an unlimited

black budget, brought all the best minds together to drive innovation in technology, to be able to make a democratic system stronger. For a bunch of reasons, after that, in the decades that followed, more and more of the innovation got outsourced to the private sector. And it started to become closer to true that the state wasn't innovating and most of the innovation was happening in the private sector, but the private sector doesn't have the same patriotic interests. It doesn't also have the same... People in the private sector aren't voted in. They don't have term limits. There isn't the same jurisprudence applied to them. So they have a different set of agendas, right? And the whole idea of the state, like you can almost think of what the state in a liberal democracy is as like a labour union for the people. And as a whole, like a labour union, how do you unify all the people to have something that is big enough to represent their collective interests so that the large corporations and the major wealth holders within capitalism don't just rule everything like feudalism, which is the thing we were trying to replace before. Because it's very clear that if we have a trade system, and it's mediated by an abstract system for doing accounting like, like currency, that pretty soon you'll have a power law, distribution of wealth, and a few people will own most of the wealth that it just some people are better at it and then getting better at it gives you more capacity to keep getting better at it and there's compounding interest, which is an exponential return on owning capital and there is compounding interest on debt. And, you know, does that thing, right? And we can see the data of that in Piketty's book and but it's also just kind of a natural thing to look at. So the idea was, since power law distributions are going to happen, that most people are going to have really no power. How do you not have that be oppression? Well, let's have the people all be able to collectively vote where at least the majority of what they care about gets encoded as law. So their values are the basis of the jurisprudence of law. So then rule of law can get enforced by representatives of, for, and by the people that are going to be bequeathed with a banal monopoly of violence, so they can actually do enforcement to be able to protect the people in the commons against perverse incentives, while letting the market do all the good things that it does. But most of rule of law is actually binding the perverse incentives, markets, okay. So if that only works where the state can check the predatory aspects of markets, if the people are checking the state that it is truly of, for and by the people, there's transparency, everybody's actively engaged, as soon as that stops happening, then the government is just run by people, those people are economic actors, they're in there for whatever short period of time, and it's, they will be liked about the same whether they do corporate interests or not, because nobody's really going to know. And so of course, you end up getting regulatory capture, the market captures the regulatory apparatus, you get crony capitalism and that kind of institutional decay. And as the founding fathers in the US said, and anyone who paid attention, as soon as a couple generations pass, and the people forget what it means to fight a revolutionary war and be under oppression, they won't keep investing in being educated enough and actively being engaged in government, because they'd rather keep up with the Joneses or party or like some other thing. And so how do you keep the intergenerational transfer not just the knowledge, but the civic virtues necessary to uphold a democracy, which is not a trivial thing. And then especially as time goes on, and the complexity of the world increases, understanding the issues well enough to really play a role in them and to be able to oversight them and police them gets harder and harder. And so there has to be more and more investment into doing that. So we can see that the people stopped investing in checking the state, the state stopped checking the market, market captured the state, all the innovation got outsourced. And so what we can see today, so we see in that World War Two example that the state really pioneered the advancement of all these areas of tech to increase the integrity of the state.

Daniel Schmachtenberger 28:18

There is a jump in technology that is currently happening that is more significant than the World War Two jumping technology. And the centre of it is AI, and computation with AI being the very centre right. It's computation, digital tech, but then the application of AI and digital tech to physical tech as well. So the application of that to biotech and CRISPR kind of stuff, and to robotics and robotic automation. And the other key areas of computer science from the evolution of the computational basis: quantum computing, photo computing, DNA computing, whatever. And again, the application of that to the material sciences, nanotech, etc. So we're undergoing this huge jump in technology right now that is something like two orders of magnitude more significant than the previous World War Two jump was, in terms of the total amount of verticality of power and the speed at which it's developing and the number of verticals simultaneously. And the way I see it, is that tech will confer so much power that only those who are guiding it will have much of a say in the future. And right now, I only see two types of groups really guiding it meaningfully. Some authoritarian nation states are. Where the nation state is taking seriously the development of the tech and the nation state is investing a very big R&D budget, and how to actually increase the integrity of their nation state. And this is a good thing for them, to do, aligned with whatever their system and their ideologies are. And obviously China is a prime example here, where the application, the government is investing in the development of engineers and in the application of all of those areas of tech to the nature of government itself. And that's everything from their IoT system, to their sesame credit system to the transistor development and lithography, to the Belt and Road initiative and getting something like 94% of the world's rare earth metals in there that are needed for computational substrate in their supply chain to, on and on, right to the creation of their own internet, that doesn't have the same problems for their country that the US Internet has. So authoritarian nation states are using the exponential tech to become exponentially more effective authoritarian nation states. And the only other kinds of org are companies, Western, mostly, companies. And those companies are supported by a military and capital and infrastructure of the nation state, but they are not serving the interests of the nation state other than GDP and jobs and some very short term stuff. And they're becoming exponentially more powerful companies. But you know, Facebook and Google have more users than China and the US combined have people, right. So these are humongous kinds of things, of which there is no precedent for a corporation in history. Ayn Rand never imagined things like this when she was thinking about the symmetry of supply and demand. And she didn't think of things like Metcalf dynamics that end up leading to natural monopolies and antitrust law didn't think of that, right. So you end up having Amazon being bigger than all other online stores combined. And Google being bigger than all other search engines combined. And Facebook being bigger for time on-site, than all the other social networks, you get a natural power law distribution, not based on government crony capitalism, based simply on the nature of network dynamics that once you reach a certain escape velocity, a natural monopoly will start to emerge based on the value of the thing being associated with the second power the number of users.

Daniel Schmachtenberger 32:15

And so the interesting thing is, you see these corporations that are becoming more powerful than nation states, in many ways, because of the development and direction of the exponential technologies. And as that happens, they are less able to be regulated by the countries, while still benefiting from the infrastructure of the countries and simultaneously, eroding the integrity of the country. We can see the way that the time on site optimization ad model of Facebook and Google and YouTube have eroded

American democracies, and Western democracies by doing the time on site optimization appeals to people's cognitive biases and tribalism, and limbic hijacks and those types of things. We can see that the kind of consolidation of market function like Amazon, that Amazon's growth during COVID, matched pretty closely the closure of all small businesses that aren't going to reopen. Well, the American Dream without small businesses isn't the thing, right? It's not a thing in the same way. And we see the technological automation of so many jobs impending, and not the replacement. And the current way that it's trending of a similar American Dream kind of sovereignty. So there's a there's kind of a billionaire to send to billionaire class that runs whatever the one big dog on the top of the power law distribution that defines a vertical is and an increasingly less upwardly mobile in terms of real capacity to play those games underclass. And, obviously, some kind of middle class that is serving the very upper class in that context. So what I see is that, that is the movement to a new kind of feudalism, right, a tech feudalism. And that, and it's even interesting, some of those companies, you know, we see this with Tesla, we see it with the other ones, some of those companies are getting subsidies, government subsidies, that means they're collecting taxpayer money, to utilise taxpayer money to do the thing they're doing. But the taxpayers didn't vote on them doing that, they were not elected representatives, they cannot be unelected. And there is no traditional jurisprudence for the guidance of the thing that they're doing. That's something much more like a King than a president, which is why I say kind of an emergent tech feudalism. So what I see is there's one strange attractor which is tech feudalism. There's another strange attractor, which is kind of authoritarian nation states. And anything like an open society where there's participatory governance and jurisprudence that is grounded in the will of the people, there is no system that is based on those ideals that is innovating in exponential tech to make better versions of that social tech. That is the number one imperative of our time, in my opinion. And either we figure that thing out, or those are the only attractors. And the third attractor is that the exponential tech just causes X risk. And we're fucked, right? Do you have X risk feudalism and authoritarianism, as the current dominant attractors in the presence of exponential tech, or there's not 17 sustainable development goals that really matter because we can't fuckin achieve any of them without better coordination, there's figuring out coordination that it becomes the central goal of the world figuring out a kind of coordination, that is emergent order that is neither chaos nor oppression. That is able to utilise the exponential technologies, and also to bind and direct them so that they do not either directly or through externality create X risk. And that they don't create authoritarian systems or kind of feudal systems that erode civil liberties in the process. So we need to have a kind of global innovation Zeitgeist, of how to develop and apply all the areas of exponential technology to building new social tech that can guide, bind, and direct the exponential tech, prevent X risk and do it in a way that is commensurate with what our underlying kind of deepest values for participatory and empowered governance incidents are.

Tom Pegram 36:31

Thank you, Daniel, that was a fantastic riff on the opening question. I think that really sets the scene and goodness, we could go in lots of different directions now. It made me think of, you know, Niall Ferguson's book: 'The Square and the Tower'. Niall Ferguson has said that historians haven't taken their work seriously enough. And he traces these network dynamics back centuries, and actually says they were a much more prominent and important part of the historical political landscape than we then we often think. So that was really interesting, I guess what our thinking, we might pick up would be, you said at some point that we often kick these problems down the road. And I wonder to what extent we're

really coming up against the sort of cognitive limits of, of humans. Given the rapidity of change, given the challenges that we confront in trying to get our heads around exponential functions. We have this kind of strange parallax right now between continuity and discontinuity. So we have these unique, unprecedented challenges. But on the other hand, we have these very old forces of zero sum competition, resource wars. Certainly something which I sometimes hear in the academy is this idea that, ultimately, there's really nothing new under the sun, that we can repurpose our existing structures that we do have good enough global governance, if you will. But I wanted to tease out a little bit more this idea of continuity, it seems to me also what we're seeing is kind of a resurgence of understanding that actually, we do need to respect the laws of physics, that we need to respect the laws of thermodynamics that we might actually even have to listen to say EO Wilson, on the laws of socio-biology, in terms of how do we navigate through a viable path given the current situation we find ourselves in. But on the flip side, we also have a sort of a real lack of radical vision within the heart, within sort of the corridors of power. Even if the UN Secretary General Antonio Guterres is calling for a new international social contract, it doesn't seem to be resonating. And if you go back in the historical record, and you look at the debates of the 1950s, in the shadow of the bomb, and how radical the vision was, of course, what resulted was a compromise. But nevertheless, there were very serious people who were thinking hard about global political Federation. What's happened? Why is it you know, to draw on that that famous phrase 'It's easier to imagine the end of the world than the end of capitalism', why is it so hard for us to work through a viable path to address the challenges that you've articulated so clearly?

Daniel Schmachtenberger 39:24

First, on the topic of there's nothing new under the sun and our previous systems of social philosophy and social technology are adequate. I don't think that anyone believes that who's actually studied exponential tech and X risk meaningfully. I have not met them. It doesn't seem like a reasonable position to hold those things together. If you look at just a single category of exponential tech, that idea will change. I'm sure the listeners have all seen this. But like, when you saw the way that AlphaGo beat Stockfish at chess, that was so fucking clear that we're dealing with phenomena that are nothing like any phenomena that the Scottish Enlightenment or the Founding Fathers or Isaac Newton, or Marx, or anyone ever had to think about. That the best chess player in the world, which is the cutting edge of there's nothing new under the sun, like chess players got better, but like people have been good at chess for a while, right? It's a slow evolution. Until AI and Stockfish just devastated the best chess players in the world, we remember seeing Kasparov get beaten. And then Stockfish kept getting better and better with the model of AI. We were programming all the human games, until it was so much better that it stopped even making sense to calibrate it relative to the best humans. And then a breakthrough in AI says, let's do this differently, right, let's make a type of AI based on rivalrous networks. And we won't actually programme any human games into it, we'll just let it play itself a bunch of times and fast forward and see what it learns. And I don't remember exactly, but AlphaGo by Google, I think, I think it trained itself in three hours. Just playing itself with no human input of information, just the rules of chess. And then it ended up beating Stockfish, there were a few stales, but it was like 38 to zero in terms of the non-stales, and it's like, oh, wow, that's it. And Stockfish was so far beyond humans. And it's like three hours of training, and then that same thing could beat us at Go and start to beat us at complex strategic video games. And this is all evolving over the course of, almost no period of time, right? This is evolving over the course of months in single digit years. Nothing new under the

sun. Nobody can study exponential curves and think that. Now this brings us to the – it's just such a silly thing to say.

Daniel Schmachtenberger 41:57

When you start looking at scaled species extinction, when you start looking at, like, the Anthropocene as a real thing, where humans are a bigger force than all geologic forces combined in defining the surface of the earth, like, Fuck, it's a different, it's a different situation than the history of the world was. And like we said, just even starting with the bomb, the world never didn't have the major empires war. And World War Two is like a second ago, in historical time, right. And the solution to not use that bomb drove all these other issues. So a lot of our issues are just increases in the severity of the same underlying type of game theoretic dynamics. And so we can say they are continuous with them in type, but there are places where a change of magnitude becomes a change in kind, right, like, as soon as the magnitude gets beyond human information processing capability, it's now a change of kind. As soon as we move from a war that's winnable to a war, that's not winnable, even though they're both the logic of war, it's a change of magnitude, that becomes a change in kind, right. So there's a lot of places where even the things that are continuous with the past, become discontinuous past certain thresholds, meaning that the same types of solutions, a whole class of solutions doesn't apply anymore. Now, that doesn't mean that we throw out everything that we've learned, it means that we have to make sure that we're applying everything that we've learned that is effective, that we aren't making the mistake of not paying attention to the total amount of human thinking and ingenuity that's happened so far. And that the new innovation that we do is commensurate with the smart parts of it. But it happens all the time that we're exploring a search space, and there's a couple branches. And in the immediate term, this branch has more incentive. And so we explore this branch, and then we just forget about this one. And we just keep exploring, and then we hit a cul de sac at a certain point. But we have reasons why there's momentum to keep, you know, some combination of sunken cost fallacies. With the actual belief that this is the only path, this earlier choice. And that we wouldn't go all the way back there to the not even knowing the other branches that were that were cleaved that we didn't pay attention to, to like perverse institutional incentives of standard models where you, it's hard to get a research grant to do anything outside of that thing, or to get your professor who believes in that thing to change their opinion on it, or whatever it is. So there are a bunch of places where we actually have to go back and say, okay, there was an incentive to make faster and faster, smaller and smaller computer chips, and there's enough money around that, that they were whole other directions in computational substrate that we didn't take that for reasons of manufacturing, resilience, and a bunch of other things might actually be meaningful and interesting. This is starting to be a real conversation in theoretical physics with string theory and like maybe we actually need to rewind and try a fundamentally different approach. I think there are places in governance where like we've just accepted. We've just kind of accepted. Capitalism is the only, in the West, is the only reasonable answer combined with some kind of open-ish Government-state. And if you think anything else, you didn't study the history of Mao, and Stalin and Pol Pots and whatever, because everything else ends up becoming that kind of dreadful slaughter. Like, that's kind of the dominant narrative where, like, it's worse than going against Christianity, or it's similar to going against Christianity and the Dark Ages, right? There's almost religious tone to it, it's like, well, we could come up with better shit that isn't any of those things, like there's nothing new under the sun: blockchain is new! Like the ability to have an uncorruptible ledger where you can have a provenance of data that you can't fuck up. That makes it where you can have a history that can't be corrupted or

changed by the winners afterwards, that's kind of new, that's a big deal makes it to where you can have a system of justice where you can't actually fuck up the data, right? It means that you can have a system of accounting, where let's say the government spending was on a blockchain that was transparently oversighted. There wouldn't be missing money anymore. Right now, there's all these places where the total amount of money going in and the receipts coming out, don't add up and there's missing money. It's like, well, that couldn't be. And so it's like, does that make something new possible? Yeah, totally. It makes something new possible.

Daniel Schmachtenberger 46:43

You look at the way that AI can make new sounds, it can do error correction of sound, where there is an error or make new sounds or make new faces by doing an average composite of all faces that look similar-ish, right? You say, 'Well, could people express, huge numbers of people express their sentiments about something and have the AI actually come up with something that is like a weighted average of all of those as a form of Proposition creation?' And then could we use distributed methods of Proposition advancement that didn't exist when we had to meet in a town hall and ride a horse from that town hall to the other ones, and we haven't innovated the structure of government since we had to ride horses? Like, why do we think this particular thing is the best thing? Well, because the other things the last time we had that conversation seemed dreadful, at least that was the winning narrative. But totally new things that are not just those previous things are possible. And so what I would say is, someone should not assume that the moment we say, maybe there's a problem with capitalism, that we're instantly going to turn into Stalinism, but to say, let's make sure we studied that history well enough to know what was wrong with those ideas and we don't do that. Yes. But let's also do the critique of the system. And not just end with the critique, but take it as a design criteria to say what would a better system look like? And have we got all the design criteria? Do we have the critiques of the communist system and the socialist system in the capitalist system simultaneously? And then can we take all those as design criteria and work on a fundamentally better design that might not look like any of those isms that utilises new technology, which means new pathways that didn't exist before with new forcing functions that didn't exist before?

Tom Pegram 48:30

I think you're also saying, Daniel, that these kinds of challenges do actually have comprehensive solutions. And I think there's quite a lot of people who deep down have very rarely, they doubt that, that's actually possible. So whether this inertia to change is...

Daniel Schmachtenberger 48:46

They haven't even tried hard enough to have that doubt mean anything, it's just an emotional default. That was the other question you asked is, are we hitting the limits of cognitive complexity? That is such a, like, shit answer, if you haven't actually applied the full limits of human cognitive complexity and seeing that we're failing? So we're not even trying? Like China's trying and they're doing fucking amazing, right? Like, in the US, we have no high speed trains, none, none. In the time that they've existed, China's been exporting them all around the fucking world, in that same amount of time. So a system that doesn't have term limits, and that doesn't have a two party system, where we just use all the energy wasted as heat, fighting each other and then whatever you do for four years, the other people undo for four years, and nobody invests in anything with longer than four year timelines because

it won't get them re-elected. That system is just stupid, that's going to fail to a system that can do long term planning. And so if we say, Okay, let's imagine just hanging out in the 30s. And saying, we got to figure out how to split an atom. No, not just splitting an atom, we're going to figure out how to split an atom and deliver that as a warhead on a rocket to some other place with some decent precision heck, we're going to go beyond that we're going to use uranium to fission something and split it to then drive nucleons into a fusion. It would be easy to say, well, there's no fucking way like we don't have the cognitive complexity to be able to split atoms, we don't even know in what an atom is. And but the Manhattan Project was a very serious investment in cognitive complexity. And we got everybody there, right? Like we got all the best thinkers in the world there, we put the budget. Are we doing that? Like, are we even fucking, where we got von Neumann, we got Turing and we got Feynman. And we got, you know, Oppenheimer, we got all those folks in Bletchley Park and in Los Alamos, and, like, where's the equivalent of that thing outside of very narrow areas of military, which is why we have a dope military, like we have an awesome military, but that doesn't, that's innovation in military, that's not innovation in the social technology of governance itself. We actually have to not just innovate our military, but innovate the social technology of governance for a participatory governance system. And this is why we come back to the there's this quote, that I always forget. So I paraphrase, of George Washington's that said something to the effect of, that the number one aim of the federal government has to be the comprehensive education of every citizen in the science of government and science of government was the term of art. And I think it's so profound that he did not say the number one aim of the federal government is to protect its borders. And he did not say the aim of the federal government is to protect rule of law. Because you can do rule of law effectively with a police state. And you can protect the boundaries fine with a military dictatorship. But they won't be democracies. If it's going to be a democracy, then democratically, the people will probably decide to protect their borders and to engage rule of law. But if the number one goal is anything other than the comprehensive education of all citizens, and their education was considered both a cognitive education and a moral education the way they described it, which is the kind of civic virtues: that people are willing to give something for the larger system that they also receive benefit from, and they're actively participatorily engaged.

Daniel Schmachtenberger 52:16

So that's the thing we need to be innovating in right now, not just innovating in military, while turning it into some kind of autocratic, or kleptocratic system. But how do we apply the new digital and other exponential technologies to be able to both direct the exponential technologies well, so that they don't cause existential risk, and in a way that is aligned with the actual values that we care about as the people? And so then the core question comes? What is a successful civilization? Well, it's one that doesn't fail. But that's not the only criteria. It's one that doesn't fail, and that maximises the possible quality of life for everybody in perpetuity. And then we have to find what does quality of life mean, right? To these, there's like core existential questions of what is a meaningful human life to be able to design a civilization that is optimising for that, which is culture, right, which is why we have to have innovation and culture, which is why I talk about that there's a cultural Renaissance, a cultural enlightenment that is necessary right now as the basis of the creation of these new institutions that can solve the extra problems. Because our current problem solving mechanisms can't solve them. This is why they're not being solved. We have to develop new institutions that are capable of solving these types of problems, these types of complexity. But if those new institutions are created by a few people that get it and impose them en force, then it's some kind of autocracy. So they have to be created by people who want

them and are willing to participate with them and capable of participating. That is, that is the cultural enlightenment, that has to be the basis of it, which and, of course, there's a recursive process of some people engaging in that to then build systems that in turn, engage more people in it. So you get a virtuous cycle between cultural evolution and social evolution, employing physical technologies, binding physical technologies, and advancing them for the right purposes.

Tom Pegram 54:11

It sounds like we really need a sort of new forms of wisdom education, and obviously, I'm glad to say that we've got Zak Stein coming on the podcast very soon to discuss that very question. And obviously what you're saying, Daniel, you know, big implications for how we think about the university in the current situation. But I'd like to hand over to Sam, I know Sam's got a burning question. So please, Sam.

Sam Coleman 54:35

Yeah. Hi, Daniel. Yeah, I've got a couple of burning questions, but I'll go with one to start. It seems like with the problems we're facing, they often as we talked about, they happen at a certain area. So for example, climate change is here already, and it will exponentially grow out. And that's one of the issues that I think we're kind of alluding to that when there's not the immediate threat of World War Two, for example, it's quite hard to galvanise a whole group of people towards a, to solve a problem. But do you think that we think about solutions in the same way to the logic of problems in terms of Silicon Valley out, or it will happen in this certain area, and slowly filter out, you know, that there's that, quote, "The future is here, it's just not that evenly distributed". And that's quite a worrying logic, if we're thinking about the magnitude of exponential risk. And do you think that we're then following the logic that we apply for problems that they happen and exponentially grow out? And is that useful or harmful when we're thinking about solutions that need to really permeate around the whole globe and not leave anyone behind?

Daniel Schmachtenberger 55:43

I'm not sure that I understand the question yet. You were using the example of climate change and saying it's already here. But because it doesn't look like an agent, in a way that we evolved to understand as an immediate threat. We don't respond to it appropriately. But that it's already here. It's expanding in a way that maybe we don't respond to appropriately. And you're wondering, Is that the case with all of the risks, there's already AI happening that is risky? And we're just not responding to it appropriately? Or was the question different?

Sam Coleman 56:12

Yes, or no question was slightly different. So that's how we understand issues like climate change. And we often talk about solutions in a similar way to that issue of climate change, ie there'll be an innovation in a certain part of the world. So the solution is already here. And then it slowly permeates out. And then eventually, everyone will have it. So you took the example of high speed trains, they are already here, the solution is already here. It's just not that evenly distributed. And do you think that follows the logic of the way we think about things like climate change, where it happens in a certain area and slowly distributes out, whereas with solutions they need to be, get round everyone very quickly, and they can't work in that logic of slowly from on centre expanding out?

Daniel Schmachtenberger 57:03

I understand now, I think. I don't think it's fair to say the solutions are already here and unevenly distributed. It's true for some things. Obviously, we already have a solution to caloric abundance, but it's not evenly distributed, because there's extreme poverty, right? That's an example. And that's one we've lived with for a long time. And we can see that it did not actually pervade out, well, for certain reasons, to a certain degree and then not beyond. And the same is still true for running water and hygiene and medicine. And right, there's a very unequal distribution of problems we have solved. I would say that many of the most critical issues we need to solve, the solutions don't exist anywhere. It's not true that somewhere has figured them out well. We actually have to do innovation, like how do we solve global multipolar trap issues, is not solved anywhere. And that's the most central thing we have to figure out. How do we create digital open societies, you can say that there are some places that are trying to pioneer like Taiwan, and Estonia, that's true. But those are very far from, have really got worked out solutions that are adequate to all the other places and scale. So I think we have to acknowledge that many of the most critical solutions don't exist at all, and need to become the primary focus of innovation. And then where they do start to develop, we have to say what type of governance and incentive landscape would be necessary to get them everywhere they need to be in time, and who would have to be participating to make that happen? And what kind of oversight and enforcement would be necessary to really make it happen. We know, you know, in the US, the government making deals with Native Americans and then not keeping them whenever it's inconvenient, almost all the time. It's not just about 'Did you say when you developed a new technology that we'll give it to the world?' It's 'Is there a method of enforcement, they will actually ensure that that occurs and it occurs within time that becomes critical.'

Sam Coleman 59:18

Okay, yeah. I just had a follow up to that. We talked about how we understand problems and how we understand solutions. Why do you think certain maxims are held in higher esteem than others? In another podcast, we talked about survival of the fittest, and how we've almost fetishized that concept above all others, and how can we make sure that other maxims are discussed in a kind of equal or more celebrated light, and is there a logic that pervades a lot of these more harmful maxims?

Daniel Schmachtenberger 59:51

Yeah, it's apologism. So if I went to war, and we kill a bunch of people that we call terrorists or infidels or some bad thing that makes them not human. But what it means is we blew up a lot of civilians and a lot of women and kids and whatever it was, but we got more land and resources and whatever it was out of doing that thing. Survival of the fittest is a nice narrative to say that's how nature works. And that's the way that it should be. And it's actually the prey animals. It's actually the predators that keep the prey animals from eating themselves into extinction. And that drives them to evolve by eating the slow one, so that the good genes kind of in breed and, you know, most people are like prey animals, so the some more predatory humans that cull the herd and that kind of drive them who are otherwise kind of lazy eaters, like that whole ideology, is apologism. For whoever is winning at an extremely damaging rival risk kind of system. Naive techno capital optimism is one of the best examples of apologism of this kind, where, like, if you have a theory that criticises capitalism, nobody who's winning at capitalism, who has the money is going to up regulate it. And if you're criticising tech, No, nobody that was winning at

Tech is going to say, 'Yes, I like your idea of why I suck, and I'm going to up regulate that.' So you realise that, for narratives to catch on, they, somebody has to upregulate them. And there's cost associated in doing that. And there has to be a motive associated with that cost. So there, it's not just like the ideas that are the most true and the most beneficial proliferate, the ideas that have the most agentic basis to drive them through the society are a lot of the ones that proliferate.

Tom Pegram 1:01:53

An idea, which is often held up sort of as counterposed to survival of the fittest is mutual aid, which is this idea that Peter Kropotkin, proposed in the late 19th century and he essentially saw out there in nature, actually wasn't the species that competed most fiercely that survived it was those that actually cooperated that moved into a kind of a situation of symbiosis, if you will. So is that notion of mutual aid is that a useful referent point for thinking about these maxims that needs to inform how we move forward, how do we actually begin to have meaningful, productive conversations? Within the classroom or within the UN forum, or within government corridors of power? How do we begin to chisel away at the mimetic sort of structures, which seem to reinforce that particular mindset?

Daniel Schmachtenberger 1:02:57

If we think through the wrong metaphors, we're obviously going to come to the conclusions that those metaphors predispose, but they're the wrong ones, and then they'll be the wrong conclusions. So what kind of animals are humans? Are humans? predators? Are we prey? Are we fungus? Are we slime moulds? Are we the relationship between trees and animals where we can see gas exchange? There's lots of different biological analogies we can try to use. And none of them apply. Like, okay, so, let's say we do the most popular one, which is that we're apex predators. Pick an apex predator. Lion, polar bear and Orca, right? Orca is maybe the best example biggest apex predator in the ocean. Compare what an orca does to a school of tuna to what an industrial fishing boat, commercial fishing boat with a mile long driftnet does. The orca misses almost every time. And when it finally catches one, it catches one. Right. And as there's less of them, it misses more often. And we can pull up the entire fucking school. In a net. We're not apex predators. Apex predators can't do that. If a polar bear decides that it's super pissed off, and wants to go on a rampage and destroy as much stuff as it can like, what's it going to do? And look at human nuclear capability, if we were similarly disposed, look at the idea that we don't factor the way that technology means that we are not like the rest of nature. So of course, we need to see in nature 'Yes, there are some competitive dynamics and some cooperative dynamics, this is true'. Where there are competitive dynamics, there are mostly symmetries of power. The tuna get away as often as the orcas catch him, right? So the slow orcas die, the slow tuna die, the faster of both happen. So the co-selective pressures have them both kind of get better together. And so there's the symmetry of power, right? The Orca is not a lot more powerful than tuna in terms of that particular dynamic. And so we can see that if we were to figure out some way to quantify all the interactions that were happening in nature, almost all of them are symbiotic. Right of some kind. Some of them are directly rivalrous and competitive. And sometimes it's kind of both right, it's a place where the competitiveness at the one to one level ends up leading to symbiosis at the species to species level, obviously, both the predator and the prey animal depend on each other. Predator dies, prey animal eats itself to extinction prey animal dies, predator starves to death. So micro rivalry ends up leading to macro symbiosis because of the symmetry of power thing, right? So we can see that there are certain types of competition, but they're limited with symmetries of power, and then there's a lot of symbiosis. Well, as soon as humans started

making tools, we were able to hunt any species to extinction anywhere and go become the apex predator in any environment and more powerful than the apex predator in any environment, we broke the symmetry, right, we became more lethal predators faster than the environment could evolve to become more resilient to it. As a result, that was the beginning of an extinctionary process that was following an exponential curve that was slow for a long time from stone tools and started to really pick up with agriculture then really pick up with the industrial revolution and is now verticalizing in modern tech world. But stone tools were kind of the beginning of it. Right? And the other stone tools and language and that type of coordination that came along with the abstraction capacities.

Daniel Schmachtenberger 1:07:04

So do humans need to ensure, as the metaphors of nature go, that where we have competition, that it's symmetrical, and that it's constrained? And that the micro competition really does lead to macro symbiosis, we need to ensure that? This is true. Is the competition between Facebook for your attention and you for your attention symmetrical? No, of course not. Well, you say, well the competition between supply and demand is symmetrical. Because there's an equal number of dollars flowing from demand to supply. Bullshit, right? The demand side is not coordinated, the supply side is coordinated. And so even though there's a total symmetry in aggregate, there's not a symmetry of coordinated capacity, because it isn't Google against all Google users, as a Google user labour union, that is also applying similar exponential technologies to buying this thing. It's Google against one person in terms of the person who didn't think that they were about to spend the next three hours on YouTube, and now they do which is better for their advertising model, not necessarily for your life. So then you can have supply side driving manufactured demand. Well, now there's not real – The market ideology is broken. Now, market ideology was that there was a thing called demand that was foundational. That people wanted real shit that would improve the quality of their life. And that created an environmental niche for supply. And the rational actors would buy the product or service amongst all of them at the best price that would drive innovation. Well the moment, supplies started to get much bigger than demand because of coordination, it realised that it could manufacture supply, and that humans weren't all that rational, all the behavioural economics. And now the entire logic of markets is broken. Right, like market theory is broken with manufactured demand and radical asymmetries on the supply side. Okay, that's important to know. And so if you go back to the nature example, where there's competitive forces, do they need to have symmetries in order for the competition to lead to symbiosis as a whole and meta stability of the ecosystem? Yes. If you bring something in that is not symbiotic with the rest of it, you get an invasive species that can destroy a whole ecosystem, right? So we should study biology, where we're not trying to compare ourselves to apex predators, or slime moulds or whatever, we can just study general principles of things like cooperative dynamics and competitive dynamics, and meta stability, we can kind of get a sense of that what is needed for meta stability and then say, how does that apply in the human world, but it will be different, it'll be very different, the rest of the animal world is not forecasting the future and making game theoretic decisions based on forecasts of the future. And so this is why like complexity theory where we model us as termites is silly, like we don't behave like termites. So it's not that it's useless, but it's profoundly inadequate as a set of metaphors. So we have to recognise are humans part of nature? Of course. Is there a distinction between humans and the rest of nature that is fundamental in type, maybe it was just a change of quantity of neurological complexity that crossed a threshold that became a change of kind, but it is a change of current. And so we will have to have fundamentally different metaphors for thinking about that, which is why it makes sense to just think

about the problem space and make sure that you understand the problem space well, and that your solutions are aligned with the problem space.

Tom Pegram 1:10:39

Yeah, yeah. What an exciting research agenda. And of course, an agenda to live by as well and to engage with deeply. And another maxim comes to mind perhaps, which would be Know thyself. It's not just a situation of impersonal, inexorable forces bearing down on us. But we're also talking about systems of, I think, human intentionality, which raises the crucial issue which we discussed with Forrest Landry in an earlier podcast on how do we make good choices? Which perhaps, you know, our education systems are not really equipping us with the tools, we need to answer that really important question. I know that Zoe's got a question, I want to hand this over to Zoe. So go for it, Zoe.

Zoe Varenne 1:11:25

So kind of building on sort of the metaphor, we have the wrong metaphors, I guess or we're using the wrong ways of thinking. I kind of wanted to know, how do we deal on a societal and a personal level with the amount of cognitive dissonance I think we're existing in because I think part of the difficulty with coming up with solutions is that some of the challenges are so overwhelming, but I feel like majority of people just kind of stick their head in the sand. And they're like, no, and so we're existing in like, I feel perpetual cognitive dissonance. And I was kind of wondering what your take on that was? And how, yeah, how do you deal with it personally, and how does a young person who's trying to sort of move forward in society, deal with that as well, without and, you know, exist as a functioning member of society without sacrificing maybe personal ethics and values, even though I kind of, I guess I know that I'm going to have to compromise somewhere down the line.

Daniel Schmachtenberger 1:12:39

You as an individual, probably can't solve those issues. Probably not one of them, let alone all of them. And you can't focus on it and really look at it and feel the scope of the current harm and the possible harm and not be able to do anything about it, and have continuing to look at it make any sense.

Daniel Schmachtenberger 1:13:11

So let's say that our social institutions were adequate, as they were at previous points to deal with... Whether they were adequate or not depends upon which group you were a part of, and which problems you were looking at but let's just take for a moment that for some things, they were adequate. Then if there was a problem you really wanted to solve, you could think about joining the CDC to work on pandemics or joining the military to work on terrorist mediated X Risk or joining an intelligence group or whatever it was. If you look around, and you see that the scale of the issues requires institutional solutions, whether they're state or network based decentralised, autonomous organisation, or whatever, but collective intelligence of lots of people, not just a person, and you don't see anyone that is currently doing that, then there isn't something you can join then what do you do? This is a tricky problem because there's a fairly small number of people that have the right psychological disposition to try to found something of that type. There are a few people who are like, either going to try to start a new type of company or new type of non-profit or a new type of social movement or whatever.

Daniel Schmachtenberger 1:14:52

There's a lot of people that can contribute value to one of those that are probably not going to found it for really not just developmental, but typological reasons, different typologies orient to different things.

Daniel Schmachtenberger 1:15:07

So to the degree that there are particular issues you care about. And you can find organisations that are doing a pretty good job that you could join or participate with, that's a good answer. That's one – It's something of an answer. To the degree that you feel like you have the typological orientation to make a new thing, or to be part of making a new thing to find other people that could co found some kind of new process, whether it is trying to get an upgrade to an institution with existing government, build a new institution build, you know, Ethereum, some kind of platform for decentralised autonomous organisation that maybe will create the future of governance via networks rather than nation states. Right? Those are all possibilities for, can I? Is there some new capacity that I believe is needed, that I could help to bring into being?

Daniel Schmachtenberger 1:16:04

So you either, right, like, either you have to join something, or you have to make something or you have to join people that are interested where maybe somebody in that scene, or some combination of them will be able to make the thing.

Daniel Schmachtenberger 1:16:23

And it's very hard to know that the thing that you're focused on, even if it's awesome is not adequate to the scope of issues you're aware of, and put all your energy into it, and not have not go nihilist or just anxious all the time. Right?

Daniel Schmachtenberger 1:16:48

So for a lot of people, I would say they should put their sensemaking into things that they feel like they have agency and, or could develop agency and that there's some relationship between their sense making and their agency.

Daniel Schmachtenberger 1:17:03

So let's say they feel like okay, well, I don't know how to fix AI AGI risk issues. I don't know how to fix Silicon Valley attentionalism issues. But I feel like if I apply my sense making to the problems in my community, I could actually help improve the quality of life of my community, I could bring warm data labs there and have the people start really getting to know each other in a multi contextual way, much better, I feel, you know, that kind of thing. If a lot more people did that they paid attention to where they could have agency, applied their sense making there, a lot of problems would get better. And a lot of other people in those communities would evolve to want to do things as well. And some of them would have different aptitudes and people communicating better would have better collective intelligence. And once you solve problems at one scale, you get better at problem solving. And you might be like, maybe I can do this for a second community, oh, I've just figured out a generalised principle, maybe I can help create a way to do this for communities writ large, all of a sudden, it starts to be able to kind of inductively scale to the scope of the problems. So one thing I would say is, like one approach is just try to understand what the world needs without understanding what you can do, just take you out just what

does the world need. Because as you come to understand that better, you'll start to have insights of what needs to happen, and then you'll at least be able to parse, where are the places doing closest stuff? What is nobody doing? How do I help make that happen? Right? That's one approach, though. The other approach is what is the stuff I feel like I could do? And how do I apply my study to be able to do some of those things where then in the process, I can be increasing my agency, to then possibly be able to converge towards doing more stuff. Both of those are valid, on their own and in combination. What I would say is that you're increasing your understanding of the world, that you're increasing your sense of your ability to act meaningfully, and that you're increasing both the depth of care and the emotional resilience, in the presence of that care simultaneously, are things you want to be tending to, there's not one good answer for how to do that. But there are things you want to be tending to. Now we spoke briefly before the recording started about the very real practical inquiry of what kind of jobs are there, you know, in the space, and it's, if, let's say working in existential and catastrophic risk are some of the most important areas in the world and pioneering new types of social technologies, both apply and combined physical technologies. If these are some of the most important areas but there's not really job there's not financial incentive there. And as you're focused on them, there's like more emotional difficulty and psychological difficulty associated with looking at like looking into the abyss. The incentive landscape is wrong for getting the people engaged in the things that matter. So institutionally, we should try to fix that and say, how do we start to put incentive on the things that matter the most, which the Manhattan Project did, right? Which is why I'm calling for Manhattan Project type things, right? And in some ways you can say, Ethereum and hollow chain and other orgs are trying to do that. So maybe some of Elon's companies, whatever, like we're taking on a problem, and we're trying to be able to create a lot of jobs and incentive to get people to be able to work on problems that matter.

Daniel Schmachtenberger 1:20:42

But the other part of that answer, I will just share is, for me, a big part of because I was thinking like, there's a lot more people think about X risk now. But I was thinking about it from quite a young age. I just knew I couldn't focus on anything else. And I couldn't focus on anything that wouldn't converge to being adequate. It was okay, if what I was working on wasn't adequate, it just had to seem like it was on a path of increasing understanding and capacity that could maybe converge.

Daniel Schmachtenberger 1:21:14

So I kept for most of my life, my overhead as close to nothing as I could keep it, and figured out things that I could do for work that took the least amount of time possible. So most of my time didn't have any market need on it. I didn't. So most of my time was self-directed study in these areas, because that was the only thing I could actually do and be congruent with myself. So sometimes I did construction to pay the bills, sometimes I did teaching or I became a therapist and did different things. But I kept my bills low enough that it didn't take that many hours. And so that most of my time could just be allocated based on my intrinsic orientation of what would be most meaningful, which I highly recommend that path.

Tom Pegram 1:22:07

Brilliant. Well, thank you, Daniel. I think we're rolling to a close, we've covered a lot of ground, it's been really an exciting conversation, I hope we'll have a chance to continue this another time. It does seem

that we are in something of a quite an incredible moment, possibly a unique moments we're facing a lot of daunting challenges. And we're all trying to grapple with what that means, I guess for us, personally, professionally. For me, and you know, in the seminar room, in the university, in society, in my interactions with my loved ones. But I guess it's also in some ways, it's a time of opportunity, as well, it's kind of a call to adventure, as you sort of said, Is there anything more important than really sort of putting your shoulder to the wheel on some of these issues that we've addressed? And yeah, I'd just like to say thank you for all of your work. And I don't know, if you have any final closing thoughts, anything that we haven't covered that you just like to share with us to close?

Daniel Schmachtenberger 1:23:13

There is a thought that comes to mind kind of following where we just were. One way I think about how to live a meaningful life. A simple but kind of elegant model is, we can think about life in terms of the mode of being, the mode of doing, and the mode of becoming. And if we were to describe the mode of being it is, in the moment, focused on appreciating what already is, appreciating the beauty of life as it is. The mode of doing occurs in time, and it's focused on adding beauty to life. If it's focused on anything else, it's not the mode of doing very well. Right? Most people are in the mode of doing, doing shit that if they didn't do it, the world would be better. But the mode of doing that matters for meaningful life is adding beauty to life and or protecting, serving the beauty that's there. The mode of becoming is increasing your capacity to appreciate life as it is more fully. And to add to beauty more fully. Right? Increasing being and becoming, being and doing. So then there's a virtuous cycle between those. But the doing only matters, and the becoming only matters because of the intrinsic meaningfulness of being. If, like ultimately, the meaningfulness is grounded in experience and the fact that experience is just intrinsically beautiful, taking reality as intrinsically beautiful. So if you because of the crises, you don't focus on that enough, you'll actually get disconnected from the source of what matters and then your motivational complex will if, if I... If I wake up so like, I wake up, I go sit outside with a cup of coffee, and I look at the trees. And I just love watching the trees move in the wind and the clouds in the sky. And just like how beautiful this planet is how much I appreciate it. And there is a fullness in that mode of being that doesn't need anything. So then I'm not motivated based on what's in it for me, because I already feel like I could die right now. And I feel lucky, right? I feel like I have lived a really rich, full life. So now it's not what's in it for me, it's not some doing that I have to do, it's that I actually want to protect that beauty. And I want to protect other people's ability to keep experiencing it forever, or at least for a long time. Because I can and because as much as I appreciate it, other people do too or can and I, that matters to me, right? Like it's intrinsically meaningful. But that's a different come from, it has a certain anxiety and angst and feverish ness that isn't there.

Daniel Schmachtenberger 1:26:07

And it has a sacredness, that is there. And then there's also a courage of like, maybe I fail? Maybe we fail, right? And life has been meaningful each moment. It's not like it wasn't meaningful like it, okay, maybe the whole thing comes this whole thing part of it comes to an end at some point, but I will do what I can to be in service to it. But that service is arising out of seeing it and loving it as is, and then wanting to be of service from there. So I can be in the mode of being just kind of chilling watching TV, I can be in the mode of doing, doing a bunch of to do lists, shit, that doesn't really matter. I can be in the mode of becoming trying to get better at doing shit, that doesn't matter. I want to think about am I engaging in each of those modes? And am I engaging in them deeply? If I'm in the mode of being, I

want to be looking at the sky, and I want to be listening to music, I love and be wrapped. I want to be feeling moved by the beauty of life. So why do the mode of being any other way? I want to be with friends that I love where I'm like, Yeah, I could die right now full. And the mode of doing I want to know that the world would be worse if I didn't do this. Otherwise, I go back to the mode of being. Just chill and enjoy it. I want to know that the thing I'm doing adds something of meaning somewhere. Right? And the mode of becoming of am I developing my ability to appreciate everybody and everything around me? And am I developing my knowledge and agency and capacities to add to it? That's a good framework to think about, you know, when you inventory your day and your week, what being on track means.

Tom Pegram 1:27:50

Wonderful. Well, thank you, Daniel, thanks so much. And if people want to engage more with you and your work, your website is called civilization emerging. Is that correct?

Daniel Schmachtenberger 1:27:59

Civilisation emerging is just like a personal blog where there's some podcasts and old stuff up there. And you can check it out. And the project that we're focused on that's really just in the earliest beta phase right now. But that is kind of the project where we're trying to bring the information forward that will help decentralise innovation of what the new social technologies that can employ and guide exponential technology are that project is called the consilience project consilienceproject.org and that will get increasingly interesting over the next, you know, few months.

Tom Pegram 1:28:34

Yeah, and I'm hoping that we'll have a conversation about how I can contribute to that project. Super exciting and do, I hope people will go and check out that website. Excellent. Thank you, Daniel. Look forward to picking this up again at some point. Take care.

Daniel Schmachtenberger 1:28:48

Thank you all. It was good to be with the three of you.

Tom Pegram 1:28:54

Thanks for tuning in to Imperfect Utopias. To get access to all of our content and to stay up to date with future zoom calls, workshops and events and more check us out ucl.ac.uk/global-governance. If you like this content, please do leave us a comment and subscribe. Till next time!