

# Zak Stein

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## SPEAKERS

Zak Stein, Jessica Knezy, Sam Coleman, Zoe Varenne, Tom Pegram

### Tom Pegram 00:00

Hi, and welcome to Global Governance Futures based out of the Global Governance Institute at University College London. 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 join our community, go to [ucl.ac.uk/global-governance](https://ucl.ac.uk/global-governance). We're really excited to have Dr Zak Stein join us today. Zak is a writer, a futurist, a transformative educator, working to bring a greater sense of justice, and sanity to education. Alongside Daniel Schmachtenberger, who featured in Episode 12, Zak is also a founding member of the Consilience Project, a non-profit media organisation, aiming to improve public sense making and democratic dialogue. Zak received his PhD in education from Harvard University, where he studied Educational Neuroscience, human development, and the philosophy of education. He's published dozens of articles and two books. His most recent book, and one which really caught my attention is called 'Education in a Time Between Worlds' and grapples with the dangers posed by a profound learning and capacity deficit in the face of civilization-wide transformations. It really is an incredibly rich and thought provoking work. And at the risk of oversimplifying, Zak argues that the world as we have known it is rapidly disappearing. And as a result, radical transformation of our legacy education systems, is now an urgent, even existential imperative. As he puts it, we can no longer assume if we ever could, the unproblematic intergenerational transmission of essential human capacities for reasoning, and reflection. So, in the spirit of the philosopher, John Dewey, we're going to discuss today, why Zak believes that at root, all current global crises might be best understood as crises of education, and why as educators, learners, and concerned planetary inhabitants, we should all care about that. So we're super excited to get into this with you, Zak, thanks so much for taking the time to speak with us.

### Zak Stein 02:51

It's a pleasure to be here. Thank you for inviting me.

### Tom Pegram 02:54

And before we get started, I'll just ask the podcrew to say hello.

**Jessica Knezy** 03:00

Hi, I'm Jessica. I work on the research and I'm very looking forward to hearing what Dr Stein has to say today.

**Sam Coleman** 03:09

Hi my name is Sam, I do the audio and the video editing and hopefully some of the thinking.

**Zoe Varenne** 03:16

Hi, I'm Zoe, I help with the social media and running of the YouTube channel.

**Tom Pegram** 03:23

Great. Okay, so to open, Zak, perhaps you can help us set the scene you describe in the book the years 2000 to 2050 as a critical turning point in the history of humanity and the planet. So what is so special about this 50 year stretch? And how does this interregnum, how does this turning relate to the educational crisis?

**Zak Stein** 03:53

Yeah, so that that specific time period, I took that on the cue of Emmanuel Wallerstein, who was the creator of world systems analysis, which is this fascinating kind of approach to doing big history, specifically, long term stretches of the development of the capitalist world system. And he was actually following from complex dynamical system theory like Prigogine and, and things like that. And he saw this kind of like, rhythm of changing in the basic organisation of capitalism, this transformation of the head, the hegemonic structure, as he called it. And so, you know, one occurred when we went from having capitalism being rooted in basically Venice, to it being rooted with the Dutch, and then from the Dutch, to the British, and then from the British, to the United States. And each time that kind of hegemonic world system transformation, as Wallerstein would call it occurred, whole swaths of culture, whole swaths of political life, whole swaths of the ecology and the humanity were changed. And he saw this and several other kind of like people doing actually quantitative analysis of large historical swaths of time, like Peter Turchin, more recently have seen these actual, their rhythms, their cycles of historical transformation. And so Wallerstein says, "Hey, we're about to be in one of these, we're about to be in a situation where, you know, the British kind of, and then the Americans and now the Americans. And now what?" Basically is what Wallerstein is saying, is like the, the end of America as the dominant hegemonic force in the capitalist world system, he's predicting. And he's saying that for the first time, the system is global. And that means that it's not clear that the hegemon can just move geographically, that we may be approaching something that looks more like a transformation of a deeper, more profound nature at the structure of the economic system itself. So this is where I got the idea. And then I started looking around it at other thinkers who were also like, even, you know, New Age thinkers, I mean, like futurists, and you know, anthropologists and other people pointing at the same kind of time period, basically. And so yeah, I brought that, I pulled that in there and put it in the book just to make people aware that when I say we're in a time between worlds, like it's a technical phrase, like it, there's, there's poetics, and it but it's actually a technical phrase, and it's referring to this, basically, almost inevitable historical unfolding of a very significant transformation in the techno, economic and political base of our world. And the argument that I weave in there is that, "Hey, don't forget education." Like Wallerstein doesn't mention education. And my argument is basically that all those other things

economics, politics, warfare, technology, you don't get those without education. And it's interesting to me that people neglect that insight, it shows how taken for granted, much of the processes of intergenerational transmission have been. And so it's invisible when they become problem with the highest in our society, because we take it for granted. Each time a capitalist world system changed, the nature of education itself changed. And so yeah, so that's, I'm pulling that bit out. And one thing that's interesting is that a great historian, again, of capitalism, Jason Moore, his book, 'Capitalism and the Web of Life', it's an incredible book. He talks about not just like, capitalist world systems, but world ecologies is which is to say, the, the way that capital shapes the nature of the planetary biosphere, literally dams and canals, and, and all of these things, and of course, now, emissions and transformations in weather as a result of, of this. So we're having and I note this in the book, we're having these crazy hockey stick patterns of major ecological transformation. At the same time, the under, underlying techno economic base is fundamentally transforming, at the same time education is transforming, and I'm pointing at education as the thing that needs to be worked on basically, first or as most primary or at least not put on the backburner, like it's going to take care of itself. When in fact, most of the problems as you mentioned in the intro that we're looking at are, are issues of skill deficit, capacity deficit, personality, disorganisation, low-grade, ubiquitous psychopathology. And so, it's a complex psychological crisis, as much as it's an ecological or technological or political or, or economic crisis. That's a little bit about that, where that, that period came from, and I've been saying, we were between worlds for, you know, five or six years. And then when the pandemic hit, people were like, "Oh, that's what you mean." I was like, "Yes," I was like, "it's everything, is fundamentally, we're in a liminal space, we can't go back or stabilise the prior system. We're going to be in a disequibrated state," and this is Wallerstein's notion, he's getting it from Prigogine, complex open dynamical systems, right? They go through periods of turbulence before they restabilize. So we're in that period of turbulence and will remain in that period of turbulence, I'm saying for decades, until something new locks in and the concern we have is that what's going to lock in is not going to be good, right? There's a way to solve this problem that looks for lack of a better word like totalitarian or authoritarian. So, you know, the Consilience Project and my work, other work is trying to find a way to solve these problems that result in an open society. On the other side of this kind of reorganisation of the world system. That's kind of like the broadest framing.

**Tom Pegram 10:24**

Yeah, that's super helpful, Zak, thank you. So maybe we'll sort of drill down a bit now into a concrete example. So thinking about climate change, I've been doing quite a bit of research recently on climate change. And there's a real sort of focus on, might even say, a fetish for CO2 metrics. We have this kind of war on carbon. And the solution ontology is really about sort of technology. So carbon capture storage, net zero, very current at the moment, very lively debate there. But also, you know, state multilateral agreements, this is a collective action problem. It's a political problem, if we can just, if we just see our way through that impasse, we can solve climate change. But we're 30 years down the road from Rio 1992, carbon emissions are yet to peak. And you argue in the book that the climate crisis is at root, not a problem of pollution, or habitat destruction, it's actually a crisis of human decision making. So if you were speaking to some of our most highly educated, elite decision makers, experts, and dare I say it, academics, what is it that we're not getting right?

**Zak Stein 11:45**

Yeah, there's, there's at least kind of two ways to answer the question. One is that one of the things we're not getting right, is the communication and education of those people who are not academics, and who are not high level policy decision makers. So like, this is in part a decision making crisis, a capacities crisis among those epistemic elites, let's call them and decision makers who are laying out this solution ontology, right? Inadequately. So there's something, I'll get to that point, like what's wrong with the highest level models about the global situation and why those are inadequate. But prior to that, there's actually this issue that the degree of polarisation around climate change, for example, in the United States, the degree of intensity, even though it's low grade, it will emerge again, around escalating economic inequality. Like there's a series of things that require really complex educational initiatives, not involving the most elite decision makers, but involving every citizen in an open society's understanding of the global situation. That we have not provided educational systems that brought people up and into a mature and complex view of the global situation. At least in the United States, you know, we're being entertained. We should be being informed and educated by the media, we're being entertained and brought into basically culture war as a form of entertainment and catharsis. And so that's the first thing that these epistemic elites need to consider is that the people, so-called, can't just simply be told what to do when you figure out what the right policy is. This is the, remember the scary lockdown, excuse the terminology, on the other side of being between worlds is the option where we figure out the climate policy that works. We can't explain it to the people, quote, unquote, the masses. So we have coercive legislation that basically mandates their behaviour change without their understanding why the behaviour change is necessary. And we saw this with the pandemic a little bit because of the information warfare around the science, right? So you get a situation where people are being requested to do things that are reducing their quality of life, but they don't actually have the epistemic insight. They don't have the knowledge they need to have the law be understandable, justified, it goes way back in legal theory to like, Kant, if you will, you know, forgive Kant his transgressions. But he did say that if you if you're going to have a legal framework in something like a democracy, an open society, if you will, it needs to be both, you know, have the force of law which is to say you get punished if you don't follow it, even if you don't understand it, but you also need to be able to be in a position to understand that you need to have all the information you need as a citizen to see why this law is valid, just, appropriate. So if we don't solve that problem, which is to say, really educating folks, the everyday person, and that requires changing the nature of the media, I'm getting into Consilience Project here, like the nature of the media, the nature of how we understand public sensemaking public dialogue around complex scientific topics, for example, then we could be in a position where even if the epistemic elite get themselves in order, and start using much more comprehensive, you know, global frames and multi cascading decision making procedures with second and third order effects and all these things we'd like to see even if they do that. If the people as it were, the masses, are still in a media environment that's completely saturated with disinformation and advertising and information extraction and predatory social media, then we're going to end up basically being a situation where the epistemic elite feel that they have no choice but to coerce the vast majority of the global population into following the laws necessary for humanity to survive.

**Zak Stein 16:14**

And then we have a civilization which may not be worth actually living in, even though it's sustainable, even though it is within planetary boundaries. So that's the first place where decision making is key is

that it's yeah, we can be concerned about the epistemic elites but until they become more concerned with actually educating people instead of propagandising them and entertaining them and extracting profit from them, there'll be no way that we can actually navigate the crisis in the context of an open society. If we turn to the epistemic elites, then it becomes clear that we're still dominated by short term thinking. We're still dominated by certain ideologies, that privilege reductive, epistemics over comprehensive and open epistemics, if I can put it that way. So reducing in all the carbon emissions, for example, seeking only those approaches that can be measured in quantitative terms, reducing the problem to a technical and scientific problem. This folds already into what I explained that they're mostly being worked on as a technological solution, often somehow a technological solution that's actually like, going to come about as a result of competition between the entrepreneurial forces and the interest of seeking profit. Right. So this is, again, a high level frame about the kinds of contexts in which basic research should be taking place to solve a problem and a lack of coordinated effort. Like, for example, we had around let's say, like the Manhattan Project, where it wasn't like, "Oh, let's let private industry solve this problem." It was like, "No, this is a problem that needs the concerted effort of everybody." Note, that they didn't sell the basic problem that I mentioned earlier, which was a secret project. Right. So, I think there's those two issues, there's a lot more to say about the kind of absence of comprehensive epistemics among the elite decision makers and policymakers and somehow that discourse often feels captured to me, or insincere to me. And at some point, you know, I don't know how to quite get in there and look at that. But that's, I think, a deep issue. I remember Jonathan Ross and my colleague at Perspectiva, talking about finance, just finance, as the major, one of the major profit centres of our civilization is basically the manipulation of fictitious capital, right. And the way these things down-propagate into how people make decisions about very concrete things involving the ecology of the planet, or even just locally, ecologies, so yeah, so there's, there's some form of motivated reasoning, or kind of a very astute and studied blindness to certain issues, the, like, conspicuous absence of comprehensive approaches. So, anyway, we have to get more specific about certain models. And again, I'm not a, I'm an educator, so I'm thinking about the errors and they're thinking at a deeper level, not about like, oh, they've got these statistics wrong about CO2 or they haven't thought through the you know, how difficult it is to actually make solar panels. And all of those technical questions are important. I'm looking at the underlying structure of their arguments and epistemics essentially saying these are kind of flawed to begin with. So I'll leave it there.

**Tom Pegram 20:08**

Yeah, no, I think it's very helpful to actually dive down and expose those underlying structural assumptions. Because it's very easy. I mean, I find myself too, all the time just getting captured by an interest in, in a part of the problem, to compartmentalising, siloing. So to actually step back, and to try and get a sense of what are these larger macro structural forces in play is crucial. And I'm not sure we're very good at doing that. And but I yeah, I just want to hand over to Sam. Sam, Sam's got a question.

**Sam Coleman 20:41**

Hi, thanks, Tom. Thank you, Zak, I just wanted to ask if we say in a perfect world, we realise the two issues that you very articulately put, and so we have an open society. Let's take, for example, the United States of America, we have an open, educated society, finance capitalism is a thing of the past. How do we move that out of the confines of a kind of national paradigm? And could you talk a bit about,

obviously, climate change is a collective action problem, a global collective action problem and is there a space for more cosmopolitan education? And working in a kind of global capacity or a cosmopolitan capacity to solve some of these collective action problems? So that we don't have one society that is, you know, really clued up but then constantly hitting up against brick walls around it?

**Zak Stein** 21:40

Yeah, I mean, I would, I would point to nationalism, at least certain forms of nationalism as one of those flaws in the highest level epistemic models that are plaguing the epistemic elites, a lot of epistemics in there. But you see what I'm saying? Like there's a, there's a bias towards certain ways of thinking about what the world situation is that makes it seem like the Bretton Woods agreements are still completely relevant and stuff when they're absolutely not, right, or as if the UN actually somehow imposed a global order when it completely didn't. So there's a there's a misunderstanding of what the actual realpolitik is at the level of what it's going to take to solve these problems. And so it, this isn't like, you know, we can't be naive and think that there will be international cooperation. But we do need to think about the forms of judgement. Like, as I was articulating, the forms of judgement, that allow certain people within certain nations to be truly cosmopolitan actors, to not say they're acting in the interest of everyone, but actually be interested in acting national interests, but that certain countries will actually have to sacrifice their advantages. Right, they'll actually have to sacrifice their advantages in order to secure any possible viable future for other countries who don't have an opportunity to actually save themselves because of the position they've been put in by those countries who need to make a sacrifice, right. So there can't be anything like good faith conversation between the global North and the global South, until the global North is like, "Hey, we're going to make some sacrifices for you guys." And so, and that story can be said, you know, East/West, like, North/South like this is a very complex situation. And so it requires a form of, let's just say moral judgement, post conventional, post formal operational, cosmocentric, cosmopolitan, moral judgement, which is a rare human trait. I point to in my book, when I say, I can literally as a human development expert, I can, I can point at those capacities that we're going to need, right, we're going to need very complex forms of ethical self-understanding, which position you within the local bio region within some kind of national structure within some kind of global structure, probably within some kind of larger structure of universal value, ultimately, and that is not something you get from the American public education system as it stands now, for example, like we are not preparing post conventional dialectically thinking global citizens. No we're preparing basically simple minded consumers, sometimes consumers of cultural warfare so that they can participate in the entertainment of the culture wars. And so that's obviously inadequate that's going to lead us to further into some kind of self-terminating tribalisation. So your pointing to the cosmopolitan consciousness is key. And it's going to be like I said, unequally distributed. In terms of the cascade effects of risk, right, and Ulrich Beck pointed this out in his work on the risk society, like: the risks are unevenly distributed, some people are kind of safe. Some people are relatively unsafe, right. And then the need for getting out of your position of advantage and putting your position in a position of basically sacrificing for the whole, that's going to be unevenly distributed, right? So it becomes a very delicate situation where we need to avoid the pitfalls of those prior attempts by the North and the West, to try to, like help out in the global South and elsewhere, well, we're going to, we're going to need a way to flip that kind of relationship. And so, yeah, some of what's taking place with social justice kind of issues of race in the United States, you know, these conversations will need to be expanded. And again, this is part of what I mean by it's fundamentally an educational crisis, even if we solve the technological problems, we still

have to resolve this history of injustice that we're living with. Or else who's going to want to join your future sustainable, super technologically awesome society, like, like, it just doesn't make sense. Like we have to, there's a certain healing at the level of culture, and a willingness to somehow re-engage in good faith again. And so I don't know the kind of crisis that will ensue, that will allow that transformation of self-understanding to unfold with a broad enough swath of people. But yeah, I know as a human development person that it is. It is crisis. It is crises and tragedy, often, that can break the psyche open enough to actually transform. So that would be one way to think about that.

**Tom Pegram 27:00**

I think it's incredibly helpful and important to bring history into this conversation, global history, which is something which has been somewhat missing from, from the International Relations scholarship in recent years, and there is a certain resurgence now of a historical sensibility in the current scholarship, and the importance, of course of acknowledging militarism, and economic imperialism. And I think what you just said, Zak, you know, there's a bracing clarity, and understanding the ethical core of the challenge. And it reminds me of Henry Shue, a prominent human rights scholar writing in 1992, about the unavoidable oddity of justice when it comes to climate change. And the crucial distinction between luxury emissions and survival emissions. And you know, that conversation has crept in from time to time, but it's really been at the foreground of how we actually deal with climate change and climate emergency. But I was curious to pick up on this idea of biases in the way that we see the world, we're now almost halfway through this 50 year critical turning point, so riffing on Wallerstein, but also say, Gramsci. Is there more to what's going on right now? In the midst COVID, as well, than a host of morbid symptoms? You write in the book, or you quote, actually HG Wells, that "The future is a race between catastrophe and education." And you hold out the prospect of good educational futures emerging out of the present. But it often seems to me or feels like there's not much space in the culture for exploring the upside of risks and uncertainties. There's a certain sort of catastrophism if that's, that's the word. And that in itself might be a kind of educational deficit. But I wonder, then, how do we how do we even get started if our collective aversion to risk closes off the possibility of, of accelerating in the direction of healthy, radical transformation?

**Zak Stein 29:20**

Yes this is interesting because I think there's two ways that, that there's kind of two reactions when you start to become aware of the existential risk landscape. I'll call them like techno optimist and kind of techno pessimist basically. And the techno optimist basically kind of talks themselves out of the idea that there actually is a risk and puts a tremendous amount of faith in human problem solving capacity. And this is not an error. Like, we're still here. We should maybe not be, like probabilistically, on many like ledgers, that's actually a question I think, for people who study existential risk: why are we still here? So but that's a separate, separate question. So with that, I think is a way to avoid looking at the risk really like, like really just having a overtly optimistic view of our ability to solve these problems, usually with technology. The other way is also a way of averting looking at the risk because you basically said, there's nothing we can do about it, and you go to the techno optim- the techno pessimist view, which basically says, like, you know, "It's over, it's done, like, get ready, basically, to die, maybe we can reboot somehow, like after everything goes away. But, you know, technology has done us in." And so those two lenses, you know, and the truth is that when you look at the probabilities, and you look at the X Risk landscape, it's hard not to be pessimistic. So there's a huge moment of truth in in the

views. So there's something about both of those extremes, which is like partially right and partially wrong. And the bit about education is a great example, because this is where I'm doing my thinking. So right now, I believe we have the most sophisticated communication technologies ever for delivering propaganda directly into people's minds, those very same tools could be used to make the most powerful educational infrastructure that has ever been created. Right. So this is this notion of we're getting exponential information technology in particular, it's disrupting the educational dynamics of intergenerational transmission. It's making us go insane. Right now we're all going insane because we're being deeply propagandised by these things we're holding in the palm of our hand that are basically making us addicted to staring at them. All of that same infrastructure were we to retool it could be used to actually customise the delivery of truly educational material. Now, this is basically the crux of my argument that, you know, we're misusing the potentialities of the digital and we could potentially wield them in the interest of unprecedented education and unprecedented kind of capacities for having a complex open society. And so many of the technologies that we have, have this double sided nature to them, you know, artificial intelligence is another one, right? You can go techno optimist or techno pessimist on the artificial intelligence thing. And both of those are right and wrong. And the truth of the matter is that yeah, there's always going to be a lack of determinism around what the outcome of a technological innovation is. So this is my view, like following Mumford and Marshall McLuhan and others, there are certain things that are laid out that are, that come with the technology and then there's this space of freedom around the technology as to where and how when the technology gets used. And so I think, right now, we're not even close to doing what the digital could do in the realm of education, because we're using it for entertainment and propaganda, because it's profitable. But at a certain point, were a group to decide like a lar- like a country sized group, or even, you know, like a city state, where a group decided to retool these things precisely for education, they would have a tremendous asymmetric advantage, very rapidly epistemically over the entire rest of the world who's using who's misusing the tools. Right. So that's like a glimmer, and there's many of these glimmers of hope, like right at the heart of the darkness, like right in the place where all of the propaganda is coming from. It's like right in there, that there's actually the potential for profound educational possibilities. And I'm ending up sounding a lot like a Marxist here. I'm not a Marxist. But that idea that capitalism builds out this massive global structure of technology, and then right is it's about the lock in, it flips and that same technology becomes the infrastructure of freedom. That's a very interesting idea. And so yeah, so that that's one way I think, again, just one way to think about that.

**Tom Pegram** 34:39

Yeah, fantastic. Thanks Zak. Hope right in the darkness. That's a phrase to ponder, I think. Okay, I'm going to hand over to Jess. Jess, please.

**Jessica Knezy** 34:51

Yes. Thanks so much Zak for everything that you've shared so far. Coming off this idea of propaganda and the tech tools that deliver it to us as a foremost teacherly authority in our society right now. How and if it is retooled to become a source of mass delivery for education, how will it be established in a culture, which is often suspicious of authority claims? I mean, as a as a child growing up, when the internet was just becoming widespread, we were always told not to believe what you read on the internet. And I think some kids have maybe lost that as it's become more and more ubiquitous

throughout our lives. But if it does in the future, become something positive, quote unquote, or dependable? How do you think the population would react to that? And will it be a smooth transition?

**Zak Stein** 35:49

That's very interesting. And yeah, I have this term teacherly authority, which I use a lot in my book, and it hinges on this, it hinges on what's the nature of legitimate teacherly? authority? And how do you know when you've got it, in a context that's saturated with illegitimate teacherly authority. And so the classic example is a there's a school, right? The school and their students and teachers, right? Students have to be there, because they're forced to be there. The teachers are there because they get paid. The teachers have teacherly authority by virtue of their bureaucratic position in relation to the student, right. So most students experience, teachers, as teachers, not necessarily because they're super smart, and like really good at being teachers. But because this is their job. And so we're in an environment where there's inorganic, let's call it inorganic, bureaucratically, mediated teacherly authority. Right? Now, sometimes, in those contexts, your high school teacher is a teacher. Like, he's brilliant, and he's really good at teaching you. And you've kind of fall in love with the idea that like this man can like change your whole mind, I'm speaking about one teacher, I'm remembering this teacher I had in high school, right. And so all of a sudden, in this bureaucratically mediated teacherly authority, where often you encounter a teacher who's lazy, and you don't understand that when you don't know why they became a teacher, and you think it's bullshit, there's actually a beacon of legitimate teacherly authority, and you can recognise legitimate teacherly authority, because one of the main things it's doing is trying to make itself obsolete, doesn't- it wants you to be able to do what it does. Like, by definition, a good teacher is trying to get you up to their level, and maybe actually get you to go beyond their level. So one of the ways you know, when you're looking at like, the media, or you're looking at a pundit, or someone who's speaking as, are they actually encouraging you, and giving you what you need to detach yourself from being their student forever? Right? Or are they addicting to you to them? Excuse me, are they- are you becoming addicted to them as the only source of information you can trust and use? Right? So this becomes a very interesting dynamic when you look at the media landscape. And when you look specifically at the discussion of science, in the media, and the disconnect between the stories, the media tell, and the complexity of the science that's happening, and their attempt to run interference on readers, so that you don't go to the primary source material, that you, you're not actually equipped to be able to be smarter about the issue than this random journalist who actually isn't a virologist, right journalist, not a virologist, journalist has never studied vaccines, right? Are they putting me in a position to actually understand the issue? Are the actual major institutions involved giving me the information I need to be truly informed about the issue or not? Or are they just basically telling you what to do, pretending to be a teacherly authority? So you're right, we've become suspicious of teacherly authority, because we have good reason to be most of what takes place in the fourth estate, which is supposed to be you know, journalism and the press and supposed to be an educational institution. Most of what's taking place there is not by any definition, looking like legitimate teacherly authority. And so, but the saving grace, and this gets to your point, the saving grace is that when that high school teacher appears, he gets a posse, like students are like, "That's the real deal." Like "That's someone who actually cares and is actually trying to empower us, like actually trying to give us the capacities and the skills that we could become our own teachers, right?" So I do think that if you build the system correctly, and you have the kind of stepwise access to deeper and deeper and deeper information and empowerment epistemically, where there's no invisible ceiling of a epistemic, asymmetry, where the

populace is like, 'Alright, on the other side of this, those guys know what's going on,' which is what it feels right. Right now most people feel like no one really trust the media, we do what the media tells us because we're socially pressured to use certain words and to have certain beliefs, especially in social media. But if you look at the statistics, most people just simply don't trust the media outlets. They have allegiance to certain ones, because they're useful in cultural warfare. But they don't actually really trust what's being said by the media. And so when you have this kind of duplicity, and this deep sense that well, somebody must know what's actually going on.

**Zak Stein 40:51**

And so there's this deep suspicion. And this lays, of course, the groundwork for much of the cultural dysfunction we're seeing around you know, so called conspiracy theories and things of that nature, which emerge from the sense of somehow there's a ceiling of epistemic asymmetry, that the main kind of media like news media, social media, the ways we're supposed to get up and into understanding the world, don't give or don't kind of work in context of legitimate teacherly authority. So there's, so it's a, it's a widespread and deep problem, because now we're cynical about the idea that there could even be teacherly authority. So I think to your point where someone said, "Don't believe what you read online," I don't think it's that kids forgot that, I think it's that they don't believe what they read online, which means they don't believe anything, because all they do is read online. So it becomes it moves from like, there's a true story. And then there's this crazy online stuff to just like, there's just crazy online stuff. And the idea that there's a true story somewhere. That's not even really an idea anymore. I'm telling you, like, if when you look at the epistemologies of people under 20, what you end up getting is kind of widely diffuse epistemic nihilism, you know, where there's this fusion between entertainment and belief, and a fusion between a need to have in-group membership in a culture war and motivated reasoning to believe certain things. So the, the sense of like having integrity truth and an orientation towards ongoing learning, and having access to stuff that would allow you to do that, and that would encourage doing that. These are, cultures like that are few and far between right now, and hard to find. But they need to be created. And I think when they are, I do think people will, will be attracted to them. Because most people don't trust the media, but they want to know what's going on. Like people want to know, it's not that people don't want to know, it's that there's a certain cynicism or nihilism about the prospect of success of knowing that we've been disadvantaged in our ability to know. And there's a lot to say there. Some of the research I'm doing now is on the nature of the history of propaganda, information, warfare and communication sciences. And it's a long history. Two decades and decades and decades, we've been working on how to like, kind of like manipulate large populations through communication science, often with a kind of technocratically benevolent notion that the masses need to be helped in making the right decision. And that brings us back to the point I made about the relation between the epistemic elites and the so called people.

**Jessica Knezy 43:44**

Yes, that point really resonated with me, especially it, it gave me the idea that it seems that true education, where everyone can have access to a primary source is mutually exclusive from control and power. I was wondering if you have any thoughts on that and whether the epistemic elite or high level policymakers, would ever be motivated to relinquish control and power that has been designed and fuelled through this structure of propaganda and entertainment media?

**Zak Stein 44:19**

Very, very good question. Yeah, the, the relationship between power and education and the relationship between power and teacherly authority in particular, in so the, it's funny because I say teacherly authority, and everyone thinks like a school and I use that context, but actually it's the mother and the child or the parent, the parenting one and the child, where you get that most basic actually most kind of like anthropologically primordial case of, of teacherly authority. And what you see in that relationship is in fact, the, the power, like the power of the mother over the child, right, let's talk about that. Like, what kind of power is that? It's not the same power, as what Roy [inaudible] used to call power over, like the political power, having access to the legitimate use of force, or the legitimate use of bureaucratic mechanism to, you know, punish, basically. So So the power of the mother over the infant is actually the power of care. And so it's a, it's a legitimate asymmetry, the mother is larger, stronger, literally provides sustenance to the child, and then teaches the child all kinds of things without even intending to do so the child instinctively puts itself in relationship to the mother as, as teacher. And so it's not about the absence of power, that you get legitimate teacherly authority, it's about a particular kind of power and power of care, or a power of love that binds people in a relationship that's completely non coercive, it's completely non coercive. We associate power with coercion, and that's what most political power is. But there's a, there's actually a power, Habermas would call it like, the unforced force of the better argument. That's an example of legitimate teacherly authority. It's like, "Why am I agreeing with you, I'm not agreeing with you, because you're going to beat me up. Or because I get in trouble. Or I get shunned from my in group. I'm agreeing with you, because that is a better argument than the arguments. I've heard the force of logic, right. The force reason it compels me not the force of physical, right." So the power of a strong argument, is an example of the power that's in legitimate teacherly authority. Now, when you try to merge teacherly authority with bureaucratic power, that's when you get that situation where now you can't tell, "Am I doing what this teacher tells me because I respect them the way I might respect my mother, and then I'm vibing with them through love and teacherly authority, or is it I have to do this because otherwise I get punished. They have legitimate use of bureaucratic force over me as a as a student." And similarly with the media, and social media, things of that nature, and, of course, political speeches, and the communication scientists that kind of roll out political platforms. There's always this question about the form of power that's in play.

**Zak Stein 47:28**

And you know, the degree to which we can say that we are consenting with full knowledge of what our situation is, or not. And so yeah, I think in an ideal world, you would have conditions of education, where there wasn't the opportunity to confuse those two forms of power, where you gravitated to particular teachers, and you gravitated to particular courses of study because of the power of the, of the teacherly, of the power of the true argument, the power of the curiosity, the power of the attraction between teacher and student, the epistemic humility, and these kinds of qualities. Whereas now, it's often the case and has been with the public schools, you know, that there is a certain, there's a certain coercion that takes place in just getting a kid to go to school. You know, like, literally, "you have to kid like, even if you don't want to," so yeah, so I think those, the, kind of like, the power over, the political power, and then this other form of power, which we, which we're not as familiar with, like with power gets a bad name. And what I'm trying to say, is like, there's actually this, there is this form of power, you know, like, when you see Martin Luther King speak, for example, it's different kinds of power, like there's a power of persuasion, that's not coercion, or there's a power to educate, that's not propaganda.

And so these kinds of distinctions are some of the stuff I'm working on for the Consilience Project, because it becomes essential as the information environment gets more complex for people to be able to tell, what's the difference here? Is this person sincerely trying to educate me? Or are they just doing one of their shticks and trying to, you know, basically, so yeah, so this is a good question. And again, I'm just like, touching on it. There's, there's a lot of, a lot of complexity there.

**Jessica Knezy** 49:31

Thanks so much that's fascinating.

**Tom Pegram** 49:34

Yeah, definitely. This idea of power as protean. It's really something which often is difficult to grasp. There's a certain allergic reaction to shifting the focus away from say, the material, the tangible, but clearly it's absolutely vital. And perhaps just to riff a bit on Jess's personal reflection. You know, as, as an academic as a child of Fukuyama, I sometimes do wonder, who are we as educators to tell future generations what to think? Or what to do with this world that we're, we're sort of leaving them. And as educators, what if our ideas about the future are no longer relevant, which is a pretty disconcerting thought. And I wonder how can we distinguish between those legacy ideas and frames that must be salvaged. And those that really we should consider relinquishing? And it's disconcerting, not only because it, because it leaves you disorientated, but also perhaps, because it feels disempowering to consider that it kind of undercuts the conviction that you can change things for the better.

**Zak Stein** 51:06

Yes, it's a very foundational question, the philosophy of education, which is, you know, what is the knowledge and skill and capacity, even the disposition, dispositions and forms of personality? Like, what are those things that we should be handing on to the next generation? It's a book by Margaret Mead. I want to say '61. I don't remember, exactly 'Culture and Commitment' is the name of the book. And in this, it's an amazing, it's a fascinating book, she talks about these three forms of culture, well she's really talking about three forms of intergenerational transmission, there's a post-figurative culture, this is what human cultures were forever, that's when what your dad's dad did, your dad did, that's what you're going to do. Like, you can just know, as an elder, like, I will hand on to my kids, what basically, they need, and things just don't change. And the kids can be like, they really know how the world works. And it's a post-figurative, right. And then there are what are called configurative of cultures. And that's where you have some of the post-figurative stuff, and stuff going on within generations, where you're changing what your parents gave you a little bit, right, so you're getting peer to peer kind of like changes in technology, which slightly augment intergenerational transmission. And so not just the sheer tradition of the post-figurative, a certain amount of innovation. And that's what began when especially it took off with, getting back to Wallerstein, the birth of the capitalist world system. Her argument is that there's a thing called a prefigurative culture. And that's where basically like, those bets are off, because things are changing so rapidly, that the world that the children will inhabit, is not understandable by the elders today. Right. So it's a very, very novel situation in the evolution of human culture. Now, it happened occasionally, in the past, when there was an invading army, or there was a massive storm, or there was desertification. And in a generation or two the entire life, you know, of a culture change. But that was a rare cataclysmic event, our technological development and economic development and political development is such, that now we are generating those types of total world transformation

within a single generation. And so what that means is that, to your point, we have no idea really what to tell the kids about what tomorrow is going to be like, we actually need to find ways to have them listen to the future, and then give them the help that they realise that they need. So and this has been seen by educators since the 60s, when it became clear that you all are preparing these kids for jobs that will not be there in 20 years when they graduate. And that problem is compounded, like to the sense of we can no longer think simply about that form. But at an even deeper level. The intergenerational crisis is one of both the children not thinking that the elders know how the world works, right, and being sceptical that well, aren't you the guys that messed up this world? Like why should we learn from you, you created this mess? But it's also the elders realising that is the elders saying, we're a failed? We're failed beings, like we're a failed species, like what have we done? How can we teach the kids What to do? And so, and that's part of that prefigurative culture, like those reflections are correct, but they're not quite fair to each side of the generational gap, that there's a situation that's emerged that came unplanned but has basically left the youth kind of stranded at the edge of history, without any elders to tell them what tomorrow will look like or how to handle it. So the elders, what they need to do is step in and hold education in a completely different way. And this is kind of the argument of my book that we need to reground education of the youth in the communities that they live and in the concrete problems of those communities, right, which is to say, something a little bit more like guild systems and skill and time sharing networks, and non-age segregated classrooms, and a whole bunch of other stuff that allow the education system to be responsive to the novel insights of youth who know more about what might emerge in the future, than the elders can pretend to know and so I think that's, it's a lot to swallow but it's completely necessary. And it doesn't mean that there isn't a role for intergenerational transmission, it means that of the skills that we have as elders, let the kids tell us which ones they believe are relevant. And so that's, that's, I think, I think that's key.

**Zak Stein 56:08**

And then some of it's also the shifting of focus, away from, again, technical skills, and into what might be called skills of wisdom or skills of ethics, that a lot of what is needed from the elders is that. "Like, don't tell us how to solve these problems, or how to organise our, our, our future economic lives or anything like that. But please share stories of human suffering, of human love, of human overcoming difficulty." The continuity of the human is at risk. It's a strange way to say it, but this is a, has been reflected upon by technologists and others, that if the generation gap becomes acute enough, it becomes almost like a speciation event where the youth become a new kind of being that almost can't be understood. That we can't - like if we were to genetically engineer superhumans, this would be the situation we would have extincted ourselves by virtue of giving birth to a new species, and that would be an intergenerational gap that's unbridgeable. So that, you know, with the rate of technological change, and specifically the information technology, and the neurological effects and the cascades of all those on human physiology, yeah, the generation gap approaches almost unbridgeable speciation event. So that means that, yeah, how do we educate those who will come after us who are not like us? It looks like I said, creating very different contexts, and allowing more epistemic humility on the part of the elders. But it's risky. Because they're kids, they're just, they're still the youth. It's not like, they're, I'm also not making an argument of like, you know, the Indigo kids, or like that they're instantly, you know, adapting to the technology, and that the millennials are, like, way smarter than any other generation, they're going to figure it all out. I'm also not saying that, like, there needs to be intergenerational transmission, the prefigurative culture that I mentioned, doesn't just throw its hands up and say, let the

kids do whatever it wants. It says no, it's we're in a fundamentally different situation of intergenerational transmission. It's actually more attention is needed, we need to be more careful to pulling out the responsiveness and the kind of native intelligence of the youth than just giving them rote curriculum that we've been given for a decade. So there's some asking for more attentiveness on the part of the elders and the youth, more intergenerational transmission just of a different kind. And it's, it's not the case that that the youth are prepared or instantly adapted or evolved for it. They're not. So yeah, the nature of our responsibility as educators has changed.

**Sam Coleman** 59:13

I think the question of differences of generation is such an interesting one. And I was wondering if we think of a hypothetical new generation in a utopian society, that is not a generation of knowers. So a generation that's been raised on knowing stuff, knowing things, but a generation of thinkers, I think we've skirted around, and we've addressed as well, some of the real benefits of that, you know, generation of thinkers, but I just wanted to red team for a second and think of what are some of the challenges of having a generation of thinkers because the instruments we have at our disposal, aren't geared towards the generation of thinkers, and I was just really interested to get the kind of red team assessment of a generation of thinkers and how that might, well, a diagnosis of that.

**Zak Stein** 1:00:04

That's interesting. I mean, there's a long. So I've read a lot of the history of education, you know, and, and some histories of education are triumphant, especially about the American education system that, you know, we were made into a society of thinkers and etc, then you get other people like John Taylor Gatto, like Jonathan Kozol, and others, even Chomsky in some moods, who would look at the American public education system as basically doing the opposite. Right. And so the argument there, yeah, even goes to the down a chain, right, keep the people's bellies full, but their minds empty. Like, that's how you govern. By precisely not really educating. And I'm not saying that that view is true, I'm saying there's enough people writing that history to suggest that at least, one of the kind of like, functions of the educational system, as we have known it is to simplify the range and diversity of thought in the populace, right. Like, you can think about preparing them for the workforce, you can think about preparing them to be consumers, but you need to basically be able to predict what people are going to think. And part of that is to weave the culture together. But part of that is to simplify the human side of the equation. And so what started happening with the Internet, and continues to happen, although the marketers have figured out how to do a standardised differentiation, instead of like the early modern one size fits all homogenization. Now we have the late modern or postmodern standardised differentiation, where there's two dozen advertising groups you think you're unique, but you're not. So they figured that out. But it's still the case that if you promote culture of learning, and you promote a culture, not of ingesting and regurgitating, right a culture of knowing, and knowing and, and resisting change of thought, but a culture where people are truly interested in learning and thinking, then you better have a culture that's ready to have a truly open society for governance and decision making. And an economic system that has true transparency and visibility around commodity supply chains and ethical responsibilities of corporations and a society that's got transparency around law enforcement, and the criminal justice system, there's a whole bunch of stuff that you can kind of keep a mess, like not in good order, if you've got a society of folks who really aren't equipped to be paying attention, but if you equip people to pay attention, then they're going to start paying attention. And so

that's part of the arguments that have been unfolding for such a long time, around this kind of negative view of education, you know, that there's been a manufacturer of consent, and kind of an arrangement of selective attention, which is like, a psychological defence mechanism, right? So if I'm a neurotic person, say, I'm just not very nice to the people who are close to me, I will selectively not attend to those behaviours, which disconfirm my view myself as being a good person. That's why it's so frustrating to be with someone who has his neurosis. "It's so clear Dude, that you're doing this, but you can't see because you're defending yourself." So defence mechanisms, selective inattention. And so similarly, at the cultural level, we're taught not to think about certain things. We're taught to studiously ignore certain ways of framing problems, selective attention is part of the education system. So if we start to remove those defence mechanisms, to what you're talking about, which is what you want to do in psychotherapy, when that happens, you know, you get a divorce, you change your job, like you move, like start having crazy dreams, like your whole life changes, right. And so this is what we need, we need some kind of cultural Renaissance, we need the equivalent of a midlife crisis or a resolution of the adolescent identity crisis for the whole culture. But it will be, or there'll be a reckoning, there'll be a reckoning. And so that kind of has to happen. So that will be the downside will be the will be the reckoning and the, that you can't predict what will happen in the way you can predict what will happen when you're systematically nudging everybody into particular groups and then predicting what those groups will... Which is what's happening now.

**Tom Pegram** 1:04:40

Yeah, that question, what am I studiously ignoring? Maybe that's one to open up a seminar with. So we're rolling I think, to the close Zak, so much more we could discuss. I hope we might be able to continue this conversation at some time down the road. But I'd like to hand over to Zoe to lead us out.

**Zoe Varenne** 1:05:03

So I think my questions are still very much percolating in my mind. So if I'm not as coherent or eloquent as the rest of you, I apologise. So we've kind of talked about a society or like a generation of thinkers and knowers. But I'm also quite interested in pulling on what you mentioned about the power through love. And so thinking about generations of feelers, because I feel like, I mean, even in generations of people, of like relatives, cousins and whatnot younger than myself, you've mentioned nihilism and it's almost like there's a competition to see who can care the least. And caring and feeling is seen as sort of a weakness and something that's, that should be weeded out. So I guess my question is sort of, how do we make those younger generations feel cared for and loved, in a way that they're not going to reject and be like, "Oh, this is this is cringy. And I, you don't understand me." So it's also into, tying into intergenerational gap. But I guess also across, you mentioned an epistemic elite. And that's, in my mind also, we are hoarding in the epistemic elites, the potential for intergenerational transmission of these essential human capacities. And I do, for me anyway, I do feel like a lot of that will come from better handling of your emotions and maybe destigmatising, actually caring about things and being very vocal about caring without worrying that you would be seen as, I don't know, vulnerable or weak or irrelevant. Sorry, if that's a bit all over the place.

**Zak Stein** 1:06:35

No, that's a very profound question. I mean, the one thing you said in passing was that the epistemic elite are hoarding certain capacity, that's a, that's a like a key insight that and there has been for a long

time, a false scarcity, of cognitive supply, false scarcity of cognitive resources, a artificially generated scarcity. And so that's important to get and some of what has been made scarce are the conditions for the possibility of love. I mean, this is one of the main reasons in my book, I talk about these social miracles, it's really about creating a society where people have or don't have to be courageous to love one another. Right, because like, if you don't love anyone, then you can't get hurt. Full stop. Like, if I love you a lot, and you die, I'm in a lot of pain. If I love you a lot, and you do something that disappoints me, I'm in a lot of pain. So there's, again a defence mechanism psychologically to in a world where you can't predict what's going to happen to the people that you love. Right? When you can't, you don't even know, if you can get up to where you want to go to be economically or whatever, or to get the skills you want to have the self-understanding like, because of the sense of precarity that many people feel there is. And most of that I believe is economic and politically generated. There is a, there's a tendency, yes, to withdraw into the isolated, atomized individual and take a cynical view towards anything that would deepen connection, and love because of the risk that's there. So one of the things the elders can do is actually demonstrate the courage that it takes to, to love in a world that's, well, in a world that in an unworlded world if I can say that, in a time between worlds, right. And it's when you're in a world, it's easier to love. Because you can say, "oh, here's how the world works. Safe to love you. Because I've got this many years before my life is disrupted or whatever, right?" But right now, there's this danger. So we need to do the opposite. And, and so the, I do not like the phrase emotional intelligence. So I talk about like emotional self-regulation, emotional self-awareness, and the languages of emotional self-description, and emotional connection. And these are as essential, if not more essential, and especially to notions of ethical identity. So right, if you think about the situation, we're going to end up in, as the wheels start to come off. I talk a lot about you know, that parable of the Good Samaritan. "Mike, what do you do when you meet someone, a stranger, on the road, between civilizations, which means you're not beholden to the law of either of those civilizations, you're on the road, you're in the wilderness, there's no cops going to show up? Right? No one's going to come and tell you, you disobeyed the laws of the city. You're just a stranger in need on the road. Just you and him and in the Bible, God, what do you do?" Right? We're going to be confronted with that kind of situation where we're meeting strangers on the road, and sometimes those strangers they'll be numerous and it's not, it's not a cognitive question. It's not a calculation or a game theoretic relationship that needs to be taken up. It's a problem of feeling. That's a problem of the human heart and the ability of the human to see another human as a human. And so yeah, those are the deeper, the deeper kind of strata of the personality, which are also in play right now. So I'm glad you raised that. And, you know, the approaches that I've seen in this area, social emotional skills, mindfulness, education, things of those nature are, are good and important. But, again, to speak to kind of psychotherapeutic context, we're going to need to learn how to process intense emotion to not just to be calm. But to figure out how to deal with grief, sorrow, tragedy, righteous anger, there's a whole bunch of stuff that we need to be able to work with, aside from just like, staying calm, and I meditate a lot. But the point is that you need to be able to, to move emotion through you in a complex way. So yes, that's a whole other whole other, you opened a giant can of emotional worms there, but it's an important one, and I can't see a way out of it without. And again, I've listed in my book, I can't remember which page notes, but it's post conventional ethics, but also like, you know, this really, really robust forms of emotional self-regulation and emotional self-understanding, which allow for actual real empathy. So yeah, thank you for, for bringing that up.

**Zoe Varenne** 1:11:44

Well, thank you for such a comprehensive answer. And just a really thought provoking conversation, it just stirred a lot of things in my mind, and I'm sure I'll, I'll go away and tell my mum about it. Because I feel like she's very much, she's very much on the emotional spectrum of things with, with me and so. So yeah, thank you very much.

**Tom Pegram** 1:12:02

Yeah, I'd like to echo that. Thanks so much Zak, a really grounded to profound heartfelt conversation, really appreciate it. And to end on that note that this is also a problem of feeling, of emotion. There is this tendency, I know it well, to slide into a kind of a false sense of objective detachment from these questions. And of course, as complexity science reminds us, there is actually no view from nowhere. So also, perhaps just to, just end as to where we might go next in future conversations there clearly are insights and lessons to be drawn from other cultures here. And what you just reflected, remind me a bit of Martin Prechtel's work, the Guatemalan spiritual teacher and his impression of Western culture as drowning in kind of atomistic alienation. So I think lots more to explore there. And yeah, well it was a beautiful way to end this conversation on education as the core challenge of our time. So thank you, and look forward to picking this up again.

**Zak Stein** 1:13:13

Thank you guys this was a blast.

**Tom Pegram** 1:13:17

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