**Center for Humane Technology | Your Undivided Attention Podcast**
**Episode 47: How Science Fiction Can Shape Our Reality**

Tristan Harris: Is Facebook destroying the lungs of the planet? Okay. That might sound like a stretch, but let's back up for a second. Brazil's president, Jair Bolsonaro, would likely not have been elected if it hadn't been for Facebook and WhatsApp bombarding people with misinformation and incendiary news prior to his election in 2018. And since being elected Bolsonaro has enacted policies that are destroying the Amazon so it can no longer act as a carbon sink. And this has had irreversible consequences for how humanity navigates threat of climate change.

Tristan Harris: Under Bolsonaro's tenure, the rainforest lost more trees to deforestation this year than in any year since 2006. So it's two hops from Facebook, to Brazil's election, to policies that send the Amazon and our planet towards irreversible tipping points. How many engineers at Facebook or WhatsApp are thinking about that when they make design decisions about how their platforms spread viral information?

Tristan Harris: The climate crisis is so vast. How do we grasp it, let alone take steps to address it? One of the best thinking tools that we have is science fiction. How can science fiction prepare us for the impending future and enable us to change it?

Tristan Harris: I'm Tristan Harris.

Aza Raskin: And I'm Aza Raskin.

Tristan Harris: And this is Your Undivided Attention, the podcast from the Center for Humane Technology. As of this episode, Your Undivided Attention is proud to be part of the TED Audio Collective.

Tristan Harris: Today on the show we're thrilled to have with us one of the greatest living science fiction writers, Kim Stanley Robinson. His most recent novel is The Ministry For The Future, a sweeping epic that reaches into the very near future and imagines what it would take to unite humanity and avoid a mass extinction. I want to say that The Ministry For The Future is definitely one of the most powerful books that I have read in the last two years. You don't have to have read The Ministry For The Future in order to enjoy this episode, and if this episode makes you want to read it, our conversation won't spoil it for you.

Tristan Harris: Stan Robinson, thank you so much for coming on to Your Divided Attention. Aza and I are really genuinely honored to have you. Your book has had a profound influence on us, and a network of friends and community that recommended it. I just remember how many people over the year 2021 were telling me that I needed to read your book. I think it's something that we really wanted everyone who listens to Your Undivided Attention to pay attention to, because I think it does something that is so hard to do, which is we're faced with these hyperobject scale problems that are beyond our ability to really sink our teeth into. And I feel like the medium of climate science fiction is just so unique in being able to bring us into a reality that we're already living in. And I think your

opening paragraphs of the book that start with a wet bulb temperature heat event that turns cities into morgues. I'd love for you to maybe just open with what inspired you to write this book and to start with such a gripping opening that you did.

Kim Stanley Rob...: Sure. And thank you, Tristan and Aza, it's really good to be with you. It was maybe in 2018 that I began to read about this wet bulb 35 temperature. I think it was a case of the scientific and medical communities having the different parts of information at hand, and yet no one had put it together to state it in the way that they began to, that essentially the human body cannot live in combinations of heat and humidity that are too high. And for me, what I thought was I need to put this out there in a science fiction story. That needs to be the first scene.

Kim Stanley Rob...: I was terrified. We've had wet bulb 34's. One of them will was outside of Chicago. So this is a really broadband problem. You think about latitude lines from north to south and possibly two thirds of humanity lives in areas that could have a wet bulb 35 temperature, including Southeastern United States, and then everywhere south of that, all the way down to Buenos Aires. So it's a very dark novel in its expectations of how fast things would go.

Tristan Harris: I think the thing that originally attracted so many people to your book is the premise of it, which is an optimistic one. And maybe you want to talk a little bit about what the premise of the book and the sort of difference between climate utopianism versus dystopianism.

Kim Stanley Rob...: Yeah. And thank you for that. That's a good line to pursue here. I'm a utopian science fiction writer. It is a project, and I've been working away at it from different kinds of angles for almost 35 years now. So when I came to this novel, again I wanted to write utopian science fiction. And so the danger is present. We could still get to a good place by human actions over the next, whatever, 10 to 30 years. The possibility is there both socially and technologically for us to finesse this situation.

Kim Stanley Rob...: So utopia for me had shifted to what you might consider quite a low bar. If we dodge a mass extinction event in the next 30 years, that is a utopian future because it beats the other ones by a long shot. And it's possible. So the novel, I gave myself this challenge, was okay, best case scenario, let's show civilization squeaking by in the next, say, 30 years, that's about what the novel covers, and getting to a better place where carbon in the atmosphere is going down and everything is looking a little better than it did before and never detach from the reader's sense that this could happen, that it was physically and even maybe socially possible for it to happen.

Kim Stanley Rob...: So that's the definition of the utopian novel in our time. We dodge the mass extinction event. And so the fact that there could be much, much worse histories playing out over the next 30 years is quite true. It could go to full on

mass extinction event and fall of civilization. That dystopian future is just as possible as the best case scenario that I wrote up. It's just that I chose to write up the best case scenario. And I now know because it's been a year and a half since the book came out. And I know by my lived experience that there was a hunger for this story. People wanted it.

Tristan Harris: I mean, the key thing that you're doing in your book is actually saying, with the premise of we do eventually reverse, and do carbon draw down, and avoid a mass extinction event, what are the steps that humanity takes? And what are the things given what we know about human nature, our capacity for denial, our capacity to say, "It's not going to happen to us," our capacity to say, "It's not that bad," or, "It's only going to affect those people over there." Given how persistent our stubbornness, what are the kind of events that it takes to knock us out of that slumber?

Tristan Harris: I want to do a few things here because I want to take our listeners to sort of decompose the hyperobject. And we use that phrase, just for listeners who are not aware, it comes from the philosopher, Timothy Morton, who talked about climate change and many of our other massive scale global problems as hyperobjects. Hyperobjects are problems that are so complex, so diffuse, so massive that they're hard for us to take in. I mean, where is climate change? It's there when you turn on the key in the ignition to your car. It's there when you start your lawnmower.

Tristan Harris: And so I think the most beautiful thing that you've done, Stan, is take a thing that everybody already knows. I mean, who hasn't heard about climate change, or sea level rise or refugee migration. And what's said about your book is that you take the present more seriously than we do, that it's key virtue is it allows us to take our present more seriously than we otherwise would. That was definitely my experience of it. So Stan, maybe just to take our listeners, your book is titled Ministry For The Future. What is the Ministry for the Future?

Kim Stanley Rob...: Well, it is an invention of my book. But what I've discovered is that there are many, many people on this planet who feel like they have been working in ministries for the future for a long time. And so that's one of the reasons that they have appreciated and even loved this book.

Kim Stanley Rob...: But the way I structure it in my novel is this. The Paris Agreement has been formed under the Congress of the Parties. And that's all UN-led. The IPCC also. These are organizations that have been spun out by the UN as they see what needs to be done in coordinating international efforts. So the UN tries to see what it can do. And the Paris Agreement is a major event in world history. All the nations signed on to it, partly because it was a very weak structure.

Kim Stanley Rob...: But the Paris agreement in 2015 said, we will all agree to work on climate change. And not only that, but will agree to meet every year and try to up our

promises and improve our situation relative to the crisis. And one of the articles in it says the Congress of the Parties can set up standing committees to deal with problems in between the time when the meetings happen.

Kim Stanley Rob...: What I did was seized on that as my excuse. They set up a standing committee to a deal with the problem that we aren't coping quickly enough with the climate crisis. And then I let it loose. What would a small UN committee tasked with representing the people of the future, and the animals that can't speak in court, what would they do? And I gave them kind of a hefty budget. Some people have laughed that I had given them so much money. That was just a coincidence or an accident. It wouldn't be enough to do the job. No agency can do this job. But they would try to do something. And then I imagined what that might be. So that's my Ministry for the Future.

Tristan Harris: The Ministry For The Future, the book opens with a horrific scene. Over the course of one weekend, 20 million people in India die in a massive heat wave. Here's an excerpt:

Tristan Harris: "Four more people died that night. In the morning, the sun rose again like the blazing furnace of heat that it was, blasting the rooftop and its sad cargo of wrapped bodies. Every rooftop, and looking down at the town, every sidewalk too now was a morgue. The town was a morgue, and it was as hot as ever, maybe hotter. The thermometer now read 42 degrees, humidity 60%."

Tristan Harris: What does it mean when science fiction starts to mirror our present day newscasts

Newscaster 1: In the last 24 hours, dozens of ambulances were dispatched to deal with patients suffering from the heat.

Newscaster 2: Police in British Columbia say they are overwhelmed after receiving at least 75 sudden death calls.

Newscaster 3: A stretch that not only broke temperature records, but also claimed the lives of at least 595 people.

Tristan Harris: We just went from India as a morgue in science fiction to British Columbia as a morgue in real life. If that doesn't stun us, then it shows just how desensitized we are. The powerful thing about science fiction is that it can re-sensitize us to reality. Science fiction can also help us imagine a new reality. What are the precipitating events that Kim Stanley Robinson imagines to move humanity in a new direction?

Kim Stanley Rob...: I don't think there's going to be one precipitating event. Even my heat death disaster in India that starts the novel, which I have to admit is a stunning and horrific scene, doesn't change anything following it. It becomes like mass

shootings in the US. People elsewhere say, "Well, that happens in India. That happens in the tropics. That happens to crowded places filled with brown people. That won't happen to us."

Kim Stanley Rob...: So we're very good at deflecting these kinds of thoughts. It will always happen to someone else until it happens to you. And then you'll be enormously surprised and coping as best you can. So the change is going to come from a drumbeat of news, and a change in the story that we tell ourselves, a change in the structure of feeling. And also the fear that something bad that really you can't dodge.

Kim Stanley Rob...: And I would say a food panic, like what happened with the pandemic where suddenly you couldn't get toilet paper in American grocery stores. And there was a bit of hoarding of things that lasted. If there was a food panic, the supply chain would be wrecked. The stores would be empty. People would begin to get hungry, and I think there is a general sense of fear and dread. But what do you do about that?

Kim Stanley Rob...: Very simply we have to pay ourselves for doing good decarbonization work and real human and ecological work rather than for extractive destructive work. So you have to move from profit to some kind of nonprofit, government-led what can be called carbon quantitative easing. So everybody knows what quantitative easing, I think.

Tristan Harris: And for those of you who aren't familiar with quantitative easing, which is the basis of Robinson's notion of carbon quantitative easing, it's when the central bank, in our case, the Federal Reserve uses its financial tools to stimulate the economy.

Kim Stanley Rob...: So carbon quantitative easing would be that the central banks in their first creation of new money would direct it specifically to decarbonization tasks. This could be paid from nation states all the down to individuals. If you could prove that you had brought down a ton of CO2 by one means or another, the means wouldn't matter, then you would get paid for it, in not a cryptocurrency, but a currency that is backed by all the central banks. So it might not be US dollars, but it could be instantly transferred into US dollars at a reliable and hopefully high enough rate that you get paid more for decarbonizing than the expense that you put out to do so.

Kim Stanley Rob...: E.O. Wilson died, last month I think it was, a great American intellectual. He will be remembered in history at a level of like Ben Franklin or William James, a major American public intellectual, starting out as ant scientist, which is remarkable but beautiful, and an ecologist. And his half earth plan, that we leave half of the earth's surface, and the oceans, to the wild animals is for our own good. It's a survival strategy for humans.

Kim Stanley Rob...: And the last thing I'm going to bring up is in my novel, there is this notion that decarbonization can happen in all kinds of ways that could be called geoengineering. Emergency measures that are taken deliberately by human beings to decarbonize and cool the planet. And in this case, you can possibly slow down some of the Antarctic glaciers by removing the meltwater from underneath them. That's highly speculative, and yet it's not just my idea. There's a good paper on it in Nature magazine that was published even before I wrote my book. I wasn't aware of it. I was happy to see it after the fact.

Kim Stanley Rob...: This is a big project, but it's one of the things that my book discusses, as we are going to have to change everything. The project of civilization is going to be to save our ass, and that we have to pay ourselves to do that.

Aza Raskin: One of the most powerful parts of reading the book for me is that when I stopped reading the book, I felt like I was still living within it. That is I would open up the news, and you had talked about the heat event in India. And here we are reading about British Columbia, where 600 people die in exactly this heat event. And it started to shift the way that I perceived reality because I was still living within the book. That is even though I knew at an intellectual level all of the different sort of stats and points and interpolations of where we are going, the nature of the hyperobject which is climate change and the fast pace of news meant I didn't get to live in that reality.

Aza Raskin: And what the book did for me was it changed my felt sense, my lived experience. And so I'd love for you to talk a little bit of that kind of theory of change and changing people's internal barometer of what is possible.

Kim Stanley Rob...: Yes. I'm fascinated by all that stuff, and I appreciate your response to the reading of that book. And what I want to say is this is what the novel is for, always and in general. That meaning is constructed. We construct our sense of meaning out of the world. Some people do it by way of religion, which is a kind of a story. Some people take account of the findings of the sciences like psychology or the social sciences to find what meaning there is. Philosophy. These are all stories.

Kim Stanley Rob...: And then the novel is a kind of a story that performs two science fictional gifts in that it gives you time travel to another time and a place, and then suddenly you're living there. And it gives you telepathy in that you're inside other people's heads, and that's rare. You're following the stream of consciousness of someone else and you're believing it.

Kim Stanley Rob...: So I wouldn't privilege it over all the other story forms. It's just that it's my story form. So yes, it changes your structure of feeling because your sense of meaning when you look at the daily in rush of, quote, news or your own sensory experiences, your own interactions with other humans, how do you slot them into a system of significance? How do you give them meaning? The beauty of

the novel is that it's giving you the ten thousand lives and each one of them, of course, is a highly moral document. There's no denying that the writer of a novel is loading the dice, telling a story with a moral to it. Even when they pretend not to, they do.

Kim Stanley Rob...: And science fiction has that extra touch, which I love. You cast a story into the future and you have thereby displayed your theory of history. How does change happen? What do we do now to make a better future? That reveals your worldview, your ideology, your political stance, your theory of history. Science fiction is always just laying that right out on a table as long as you decode the story. And one of the joys of reading science fiction is, of course, you're always decoding. Like, what is he saying about right now that this story is representing by its future cast? It's a game that we play that teaches us interesting things for the real world.

Aza Raskin: I think it's definitely worth slowing down and defining structure of feeling. And the reason why I say that is so often when we're faced with problems that feel so large and so insurmountable, like where does that feeling come from that things can't be changed? It's often that we're looking internally at some barometer and sort of running an experiment. Like would human beings really fly less and see their family less? Would beings really live off of like 2000 watts of energy? Or like, "Oh, it's completely implausible that we would shift our systems. I can't even imagine what a different version of capitalism might look like." We just say that's impossible, and don't go down that path.

Kim Stanley Rob...: Yeah. Thank you for this, Aza, because it's good. A structure of feeling comes out of Raymond Williams, a Marxist literary critic from England, a very good one. Many concepts useful out of Raymond Williams. And this one, one of my favs, because it's essentially like zeitgeist, or worldview, or the what Marx called the general intellect. What everybody agrees is normal. And it's a social thing. To a certain extent it's a generational thing.

Kim Stanley Rob...: You guys are younger than me and have a different generational experience. Say that you feel that you're in the precariat, which is to say, your situation is precarious. You lose your job. You lose your health insurance. You get an illness that you didn't expect, and your life can be ruined. So this structure of feeling of being precarious is part of the capitalist realism. Things will never change. The powerful have power. They've got the money. They've got the guns. They can buy the politicians. And therefore there will never be a reduction, there will never be progressive taxation again. Why should I even try? I'm going to check out. I'm going to stay on Twitter all day. They're not completely disengaged because it's highly political, but it's not organized into let's change things. It's more a registering of dismay.

Kim Stanley Rob...: But if you think of the structure of feeling as being malleable to the moment and what we do matters to the next moment, then capitalist realism has to always

be remembered as illusory feeling that people have that this political economy that we're in now is really the only one and it's so strong that we'll never get out of it.

Kim Stanley Rob...: That's wrong on several levels. And there's one basic one I want to bring up. What can't happen, won't happen. So the capitalist system as it exists now cannot go on without wrecking the biosphere and causing civilization to spiral into catastrophes and crises. So the system we're in now, can't go on; therefore, it won't go on. How will it change? Well, that's a matter of what we do now.

Aza Raskin: I wanted to share just one anecdote that really made me think of your book. And this is casting back to Frances Haugen, the Facebook whistleblower. So place your mind, there has been five or so weeks of Wall Street Journal articles with increasingly bad disclosures of what Facebook knew, when they knew it, and what they decided to do. She comes out on 60 Minutes on a Sunday, and she's going to be testifying for Congress, I believe on Tuesday. And that Monday, Facebook and WhatsApp go down. Facebook employees are locked out of the building. Their badges stop working. No one knows what's happening. This is the worst outage for Facebook across all their properties. And the question is who did it? And my mind immediately went to Ministry of the Future. Like we are living in this fiction. So I just wanted to share that story for the power of it.

Kim Stanley Rob...: Well, I get a lot of emails whenever anything happens now. They are saying, "Oh, wow, this is like something out of Ministry for the Future." And I'm pleased by that. Although also alarmed. But it's a good response, because it means that people are trying to fit individual random incidents that look random into a coherent story of what's going on. So they're trying to construct history on the fly. And I wonder if Facebook blew up Facebook that day as a distraction. This is a pitched battle and it's on all fronts.

Tristan Harris: I think actually one of the more important parts of your book is the role of ecoterrorism and the role of violent destruction of property. You have drones used to start breaking down planes, drones used to break pipelines. Could you talk a little bit about the role of ecoterrorism in stoking the change that ultimately changes humanity's course for the better?

Kim Stanley Rob...: Yes. It occurred to me when I was writing the book that there were going to be people suffering from climate damage who are going to be angry. If you see your village flattened, if you see your family's killed and you're a survivor, you're going to be angry. And you might want, not just justice, but revenge. We've seen that there's violence in this world, and I wanted the novel to feel realistic.

Kim Stanley Rob...: I myself am a suburban middle class Californian house husband. And I had to think also, what would I be willing to do? I was queasy enough about this topic to try to put it into the novel without looking like I was advocating one action over another. What the novel clearly advocates is a carbon coin and some

judicious and well-placed geoengineering, and social changes. Justice itself as a technology. So I would like to claim that Ministry For The Future is advocating nonviolent civil resistance and legislative change as the best way forward on this.

Kim Stanley Rob...: But the world is not in total agreement with me, and stranger things are going to happen than what I've advocated for in the book. As we go into the next few years, right in the next five years, there's going to be a discrepancy between what we need to do on decarbonization and what actually happens. It's become more and more evident that the fossil fuel industries are not going to go down without a fight.

Kim Stanley Rob...: But also these fossil fuel industries are usually owned by nation states. 75% of the fossil fuels on this planet are owned by their nation state's governments, the petro states. The United States is a petro state, but we prefer to go through private businesses. Many other countries do not and directly own their fossil fuels. How are we going to compensate them? This is a problem for the carbon coin.

Kim Stanley Rob...: But to get back to the point of violence and resistance. As we see the discrepancy, we're burning more fossil fuels than we ought to. And by 2030, that will have made things grotesquely difficult for the generations that follow to claw back. We might pass planetary boundaries, but simply human powers, technology fails. We don't have the physical power to claw back from those. So it has to happen. What will middle class, or the precariat, or ordinary citizens do, or agree, is the right thing to do, which would be the support of the rest of the community.

Kim Stanley Rob...: As a science fiction writer, I like to say nobody can predict the future. It's impossible. That's not what science fiction is about. But thinking just as an ordinary citizen, I think we are coming into a crux period in the next five years where more and more people are going to be asking these questions, and we might be seeing more civil disobedience, whether there a violent edge to that. Well, it seems quite likely. So this is part of the discussion that we're in.

Aza Raskin: How do you solve your own imagination gap? That is to say, when I stare at problems like this, and I think a lot of our listeners stare at problems that are hyperobjects. You know, what Ministry For The Future does is that it gives a plausible path to how we sort of squeak by. What is your process for galvanizing that imagination gap to crafting a set of steps that get us from here to there?

Kim Stanley Rob...: That's a good question. One thing I think that I do, and I've always done this as a novelist, is that nobody thinks of themselves as a villain. Most sane people have a self justification system in place, an ideology of action that says that what they're doing is not so bad. This includes people working hard to burn more fossil fuels as their career. They're creating energy for a populus that needs

energy, because we all need energy as something keeping us alive. They have their systems of justification.

Kim Stanley Rob...: So one thing I do is try to imagine the other side's system of justification and see if I could destabilize that by a story. Another thing I've been doing is trying to imagine, and The Ministry For The Future tries to imagine, is are there present-day tools, legislatures, central banks, the already existing nation-state global capitalist system, can it be wielded and reformed within itself to become just and sustainable over the long haul and stabilized?

Kim Stanley Rob...: Well, some people would say, "Oh, Stan, no impossible. You're such a liberal. You're such a hippie. You're such a law and order guy. We got to break the system and build an entirely new one." And I'm just thinking A, not enough people will buy onto that; B, it doesn't work, because when you break things, you got to rebuild them. And we only have eight years before we're cast into a course that will be very hard to claw back from.

Tristan Harris: Only eight years before we're cast into a course that will be hard to claw back from. That sounds terrifying. But Robinson's book is actually full of potential solutions, and ideas, and sources of inspiration. And in that spirit, I wanted to give you a tour of some of the solutions that he explores in The Ministry For The Future. Everything from pumping seawater to the Antarctic ice shelf to slow sea level rise, to switching the global currency of the world to carbon coin, a reward for sequestering carbon, to solar geoengineering. And what happens when nations start seeding the atmosphere with metals to reflect sunlight and cool the planet? To building and launching new solar powered airships.

Tristan Harris: The rise of new religions that help people with this new climate reality. How black wings of the Ministry for the Future destroy oil pipelines and airplanes to employ a more rapid transition. To therapeutic practices for millions dealing with climate grief. To transitioning corporations to worker cooperatives with greater incentives to take care of workers in the environment. To job guarantees. Clean desalinization. Replacing container ships with sailing ships. To universal passports for climate refugees.

Tristan Harris: And all of this told through narratives of different people affected by the climate reality all over the world. When we have a sense of what's possible, we can now have an opportunity to create it.

Aza Raskin: I mean, we mentioned a few different themes here. The importance of changing the structure of feeling, of changing the sense of what is possible, the Overton window, Samuel Overton's concept of what is socially acceptable within the political zeitgeist. Something that felt like, "Oh, we could never do that," to suddenly, "Whoa, we can do that." Is there like a historical precedent for the kind of major societal turns, or flipping of the infrastructure, or incentives? That's kind of what the reality we're trying to instantiate here for listeners.

Kim Stanley Rob...: Sure. And I do have an analogy, although it's more unprecedented than ever the situation we're in now. But the analogy would be to World War II. And of course, you know, your country's being bombed. Your building or the building next door blown up. That gets your attention, and you believe you're in a crisis when that's happening. But in World War II, the British Treasury seized the Bank of England. It said, look, we are taking over here in terms of where money gets dispersed in the first place. And it has to be put to the war effort.

Kim Stanley Rob...: So, okay. The analogy to World War II. Right after World War II, the structure of feeling was such that the US government, led by Dwight Eisenhower and a Republican Congress, had a progressive tax rate such that the richest people in the country when their income hit $400,000, which would be the equivalent now of about four million, they were taxed 93% above that. Okay? 1952, 1953, 93% tax rate, once you got above it. So in other words, you hit a certain level of success and the government takes the rest.

Kim Stanley Rob...: How did that happen? The structure of feeling changed. What was different in '53 was that the people who had gone through World War II had seen a spasm of worldwide destruction and death. A hundred million people died. Many more displaced. Lives ruined. A spasm in history such that it got their attention, and the wealthy were somewhat blamed for it. Ordinary people felt like the rich people didn't go out and fight on the front lines. They continued to make profits on the side. There was a continuous fight between government and business as to who was going to still make profits out of the war effort, because businesses were still running. It's just, they were building planes and tanks.

Kim Stanley Rob...: We are in a crisis such that the deaths at the end of a bad climate change century would way outnumber World War II. And this is a shocking thought that is hard to take into your mind. It's happening in slow motion, and it's not a bomb on your head. It might be a hurricane blowing your house down. But it's hard to grasp. But once people grasp it then, okay, progressive taxation helps a lot. Regulations help a lot. You simply can't do that.

Kim Stanley Rob...: And so I revert to government and law as being malleable forms. If you make democracy real by believing in it and enacting it, and you get a legislative working majority, and you simply steamroll the minority that will always think you're some kind of horrific socialist demon Satanist. I mean, there's a lot of complaint about how we're all polarized, blah blah.

Kim Stanley Rob...: Well, things were more polarized in 1861. Polarization in American politics has always been intense, and maybe worldwide everywhere. You just have to win the political battle. And since 75% of the populace would be better served by a progressive leftist program than a regressive right program, if you could convince them of that, you'd win the elections. You'd change the legislation. The laws would change for the better.

Kim Stanley Rob...: Now I'm by no means sanguine that all this will come to pass as one would wish, as I would wish, as we might wish. It's a wicked political fight. That's what it comes down to. And here the stories that you tell the people in the middle, to me this is where the battle front is. And maybe this is because I'm a suburban American and I see it around me. You've got to fight for the middle. You got to win the political majority. It doesn't matter if it's 52% if you can hold it, and win, and go on. And then change the laws in a smart way, it could do it.

Tristan Harris: Stan, what's one thing that since you've written the book and looking at all the examples of things that are unfolding, what's something that gives you hope that maybe our listeners might not be aware of?

Kim Stanley Rob...: One thing I wasn't aware of is how huge the effort to do good already is. In this contested political sphere, and because we're not yet doing enough, one can make the quick assumption that we'll never do enough, that it won't be enough, and that we are already doomed to failure. But what I saw was that that maybe that's not true. And even when you're not doing enough, you might be on a trajectory towards doing enough, because the intensity of the effort of people working on it already is already there.

Kim Stanley Rob...: That gives me a lot of hope, because in a way I'm just a reporter. I conceive of novels as being a way of organizing the stories of one's time, and even a science fiction writer does that. So I've just organized the stories, and looking around at stories, it gives me hope to think that the situation is changing fast to a sense that the story of humanity in the 21st century is can we cope with climate change and get to a just and sustainable civilization?

Kim Stanley Rob...: That's the whole story now. So there's a sense of hope in that there is a cause that a lot of people are joining to fight to good fight. And I also want to say, you know, hope is biological. You can make it as a political choice. So you got Gramsci, pessimism of the intellect, optimism of the will. So things do look dire and you hold on to hope and to optimism as a political club to beat your enemies with say, "No, the situation can get better and therefore I'm going to fight for it. And therefore you are wrong."

Kim Stanley Rob...: And at the biological level, hunger, that's a kind of a hope. I'm hungry. I hope I get some food in me because my cells need ATP right now. So if you redefine hope as something biological, it doesn't go away just because you're feeling discouraged. You can imagine that you're hopeful at the cellular level, and that it's stubborn and it doesn't go away. It's just always there. It's the understory. It's the hunger. You eat your breakfast. You've actually acted on a hope that you had to stay alive. And then once you redefine it like that, you can begin to fan the flames, and what seems kind of little and weak can begin to look really stubborn and persistent.

Aza Raskin: When you think about our audience of technologists at technology companies, people who work at the Facebooks, the Twitters, the Instagrams of the world, policymakers in Washington who think about how technology can be a better force in our society, is there any action that you would like to leave any of our listeners with more specifically?

Kim Stanley Rob...: One thing that is a little counterintuitive in our a day and age, but it's worked for me, is try doing your work outside. Spend more time outside in general. It will change you. It will be lower carbon burn. And actually if many people are working at stations or working at home, as long as there's shade on your computer screen, you can work outside more than you think you can. And it changes everything for you. It's healthier. It's more cheerful. So try going outside more.

Tristan Harris: Kim Stanley Robinson is an American writer of science fiction. He's published numerous short stories and 22 novels, most recently the subject of our conversation, The Ministry For The Future. He's had many accolades, perhaps the most exciting one being that in 2001 an asteroid was named in his honor. Robinson lives and works outside in Davis, California.

Tristan Harris: Your Undivided Attention is produced by the Center for Humane Technology, a nonprofit organization working to catalyze a humane future. Our executive producer is Stephanie Lepp. Our senior producer is Julia Scott engineering on this episode by Jeff Sudekin. Dan Kedmey is our editor-at-large. Original music and sound design by Ryan and Hayes Holiday and a special thanks to the whole Center for Humane Technology team for making this podcast possible.

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