

Transcript of Interview with Frank Lee by Kit Heintzman

Interviewee: Frank Lee

Interviewer: Kit Heintzman

Date: 11/27/2021

Location (Interviewee): Somerville, Massachusetts

Location (Interviewer):

Transcribed By: Angelica S Ramos

Some of the things we discussed included:

The pandemic as a test run for handling a crisis in the context of climate change. The pandemic as a prison without bars and unclear rules. Going through health insurance switches. Noticing signs about a Coronavirus in airports at the earliest stage of the pandemic. Early expectations that this virus would be comparable to SARS and MERS, and either die out quickly or be limited in spread. Changing financial decisions due to the market volatility. Living with roommates during the pandemic, and suspicion about threat between people. Pandemic hygiene and uncertainty about dangers associated with surfaces. Polyamorous roommates and negotiating safety with them and multiple partners. Living with a woman in her 70s and her vulnerability. Worrying about losing parents. Resource scarcity early on and rationing: masks, bleach. How the Czech Republic's early masking policies and messaging influenced the decision to start masking. Worries about divisive politics in the USA and democracy. Working in a field dominated by older white men and not realizing how representative their conservatism is of the American population; that there are two Americas. Feeling like a foreigner in USA after Trump was elected in 2016, even as a citizen. White people's entitlement to a certain ease of life and feeling like that privilege was being threatened. Model minority stereotyping: privilege as a "Asian nerd" in hiring or "Asian homebuyer" when shopping for mortgage loans. The impact of George Floyd's murder on understanding how different a Black person's experiences might be from one's own; taking up reading about race. COVID dangers and political disagreement dangers. "We wish you good health" as a greeting in the family, valuing health above wealth. The imperative of busyness in American life and its impact on health. Pausing, perspective, and being able to envision a future; the importance of free time; re-evaluating the difference between productivity and being busy. Housing, rent, and gas costs in Boston. Using podcasts to better understand developments in COVID-19; knowledge as power. An older friend with lung disease getting breakthrough COVID. Monoclonal antibodies. Efficacies of different vaccines. Respecting the decisions others are making for their body. The pandemic taking away physical and social contact, like hugs and dancing and music jams. Thanksgiving with enhanced safety from rapid testing. The security and reassurance that comes from being vaccinated. Balancing avoidance of COVID with the mental health consequences of isolation. How the awareness that COVID moves between species changed perspective on the future of the pandemic. Worrying that the slow pace of a vaccine for HIV would predict the speed of developing a COVID vaccine. The inevitability of infection with COVID-19, and likely multiple reinfections. Understanding of immune response to vaccines and natural infection. The hope that all 7.9 billion humans could learn to work together for a common goal. The emotional impact of father's memory loss. The Great Resignation

Kit Heintzman 00:00

Hello

Frank Lee 00:01

Hello

Kit Heintzman 00:03

Would you please start by stating your full name? The date, the time and your location?

Frank Lee 00:08

Oh, yes. My name is Frank Lee we, and today is the 27th of November 2021. And it is now 8:27pm. Eastern Time. And where are we are? We're in Somerville, Massachusetts. Great.

Kit Heintzman 00:24

Thank you so much. And do you consent to having this interview recorded, digitally uploaded and publicly released under a Creative Commons license, attribution noncommercial sharealike?

Frank Lee 00:36

Yes.

Kit Heintzman 00:37

Would you please start by telling anyone who might find themselves listening to this a little bit about yourself? What do you think they should know about you and the place that you're speaking from?

Frank Lee 00:49

Oh, okay. Um, so, um, I guess I'm, I consider myself a young professional, even though I'm middle aged. In my 40s, and I work in technology, specifically, I'm a chip designer, I work in designing chips that go into power supplies and battery chargers. I'm in the process of transitioning fields, learning to become a biologist, studying biology at a DIY bio maker space, since there are such things now. It's really awesome. And my inspiration for doing that is to work on climate change mitigation, which my intuition says biology will be very important, I'm fairly certain that we're going to get the zero carbon grid, I feel that there are many smart people working on that, and that we will absolutely get there, even though it will be hard. But I don't see enough people working on eliminating all the or getting rid of all the extra carbon dioxide we've put into the atmosphere since 1750. Since the Industrial Revolution, half of which I believe we've put into the atmosphere actually, since 1980, which is kind of scary. It's like an exponential growth.

Frank Lee 02:21

So that that's where that's where I come from, since I've been a professional. I'm a higher earner than the average person. And that gives me a lot more time flexibility to pursue other things.

Kit Heintzman 02:37

Would you start by telling me what the word pandemic has come to mean to you?

Frank Lee 02:45

Pandemic has been a very hard and stressful place. It's like a prison. But where the bars and the boundaries are not obvious. It's not obvious. Where the hazards really are, how far we can push things. That's what makes it very stressful. At least in a physical prison, perhaps maybe there are rules, and maybe there are walls that you can see. But here, there are, and that's been very scary for me.

Kit Heintzman 03:32

To the extent that you're comfortable sharing, thinking of a pre pandemic world, what were some of your experiences of health and healthcare infrastructure?

Frank Lee 03:46

I've always well, actually, that my, my employer changed because of a merger, a larger company bought us out. And our health care immediately became, I would say a lot worse. Essentially, all our we were all put on to essentially what would be considered a catastrophic only insurance coverage.

Frank Lee 04:17

But with the added benefit of something called a health savings account, which is like your 401k you can save pre tax dollars into it. And then you can use those pre tax dollars to pay your own health care costs. And then after you've meet a certain year after you've met a certain deductible, then the plan starts paying but at the doctor was extremely high. It was about \$3,500. So when I got my first prescription, I was in shock. And when I got my first doctor's bill for \$500 I had to pay all of it. And I was quite in shock at that as well. And yet I still have to pay a premium out of every paycheck for this plan. So I'm not exactly sure what we're getting from this. Why the employer switched.

Kit Heintzman 05:25

When did the pandemic first hit your radar?

Frank Lee 05:31

There were some inklings. I had gone to the last place I traveled. I don't remember. I remember arriving back to Boston by plane. And remember seeing signs about that there's some kind of a Coronavirus or something that is somewhere else in the world, not here. And that is not yet a concern. But already I was a little worried. I was thinking well, maybe this will be like the first SARS which was also Coronavirus, or like that other one, like maybe 10 years ago or so that, I guess is transmitted from camels. That those sort of were present, but they died out by themselves. So I thought that maybe there was a chance for this to happen. And then I heard sometime in December that there was there was suspicions that this virus could be carried asymptotically. And I think a part of me sort of knew something was going to go wrong. But I think another part of me sort of blocked that. So that I didn't have to deal with that, because it would have been too unthinkable. And then when it happened, I just didn't know what to do. It was just very frightening to remember what some of your initial reactions were like. I remember having to go deal with just a few days before the lockdown here in Massachusetts. I I went to deal with an old retirement account from from a former employer, and I was have been thinking of consolidating all of them into one account. And I remember asking the question, after because there were already news of Wuhan and things like that in China. This was in February.

Frank Lee 08:07

Yeah, I think it was very late February, maybe it was early March. I don't remember now. But it was around that time. And I walked into the office, I sat down with the person. You know, there were no pandemic precautions yet. But the markets were very involved. So I've been watching them. And I asked, can you just remove all of the the stocks and the whatever the mutual funds over to consolidate the accounts? Or does this involve selling all the accounts, taking the cash, and then buying new funds that are substantially the same? And the person said, well, even though it's true, that that your account will still be held with us, and the old account was held is held by us in that the two funds have different things, you know, different securities are allowed. So we will have to liquidate

pretty much everything, and then repurchased. And I said and is that done? Like what is the interval between when you sell and when you buy says it might take a few days, that might be happening over a few days. I said, given the choppiness of the market, which was unexpected when when you called me and I was agreeing to do this.

Frank Lee 09:40

I no longer agree to do this. And that was it. And the person said, Oh, okay, I understand. And it was like thank you very much for considering blah, blah, blah. And that was one of the experiences that happened very shortly before the lockdown. Yeah, there was also this feeling of dread because I had had hopes of going to visit professors at MIT to learn more about how I might launch myself into a new career, or what directions to go into. And then when there was the lockdown, I thought, oh, no, I don't know how long this is going to be postponed.

Frank Lee 10:33

And there were also immediately a whole other a whole bunch of other issues because I live together with roommates. And we all have different families. And we all have different significant others, and they are different friends. And so suddenly, there became this thing about this not knowing where the dangers are, it became very confusing and very stressful. And, and it meant that you know, other people were suspicious of me, and I was suspicious of other people. Because very uncomfortable conversations.

Kit Heintzman 11:19

I would love it if you would talk more about living in a situation with roommates at the beginning of the pandemic, and then how any of that may have changed.

Frank Lee 11:30

Oh, so at first we spoke about we have House meetings, about once a month

Kit Heintzman 11:39

How many of you?

Frank Lee 11:41

Let's see, there are a total of five of us here. And we, we have these House meetings where we try to discuss issues like this, but never had we had something that was as uncomfortable to deal with as this.

Frank Lee 12:06

I have to say that it was difficult to know where everyone else was coming from. And there were there were subtle issues as to who who could be considered reliable and who could not and things like that. That were that were kind of very scary.

Kit Heintzman 12:32

What

Frank Lee 12:33

yeah, yeah, no, go ahead. Oh, well, part of what?

Frank Lee 12:37

At the time, we were also very worried that the virus was transmitted through cleanliness of surfaces or dirty surfaces or contaminated surfaces. And I know that even among doctors and nurses and healthcare professionals who should know better, that washing hands and cleaning things are the most important things to prevent hospital acquired infections yet the infection rate is very high in our hospitals. So just knowing that fact and knowing that now it's upon us ordinary people to have to deal with that.

Frank Lee 13:20

It just I think parts of me just was so anxious that I just they just shut down like I was numb to this because I just couldn't deal with it.

Kit Heintzman 13:35

How did situations with a roommate change over time?

Frank Lee 13:44

There were concerns about some of them one was a was this. Yeah, is or was studying to be a school teacher and would be entering classrooms with kids and another I guess a boyfriend actually another he was polyamorous and had multiple relations in different other households. That suddenly became very scary to me just the unknown the potential unknown size of the of the bubble there was was very difficult and that's also a situation where you cannot you can't wear masks around your partner's like he can wear masks at work.

Frank Lee 14:58

But yeah, that does made it very difficult. And I also live with someone who I love dearly, who is has, you know, she's in her 70s. And I just feel that she's so vulnerable. So, so I was just very worried there was just a lot of worry that that I could lose her. Or, or my parents who are also in their 70s and 80s, I was also worried that I could lose them. Because it seemed as if the people who were fall falling ill and suffering the worst outcomes, at least in Wuhan, they were the older folks to death rate seems to seems to climb rapidly. Like for the those who are 75 and older.

Frank Lee 16:04

So I knew that it was disproportionate and that someone who's young, they likely just get through it as if it were like a flu or something. But they'll do fine. And they might not have as much incentive to be as careful. So that that's where I was coming from. I also felt young in quotes, even though I'm in my mid forties is which is really not that young biologically. So, so I don't feel invincible. But at the same time, it was almost as if I was in the position of someone who was in their 70s, because I'm so connected to the people who are in love are in their 70s and 80s. So this, this, this made it a very strange situation.

Kit Heintzman 17:00

What are some of the ways that you adapted day to day living early in the pandemic?

Frank Lee 17:11

We talked about practical things that we could do. A See, I was able to find face masks for sale at a grocery store nearby that's called Pemberton, for whatever reason, they were the only place nearby or within I don't know how far but we searched a few places, like hardware stores and things like that, and they did not have masks.

Frank Lee 17:47

But Pemberton did, and they charged a very high price for them too. But I was willing to pay it because I thought this is maybe the only protection we had. Also getting things like hand sanitizer and alcohol were very difficult to find, like everyday, I would go to the supermarket and check the section that has the alcohol and the hydrogen peroxide and the bleach and those shells were there day after day. And once in a while there would be like a couple bottles there and I would just grab them. And CVS had our local pharmacy.

Frank Lee 18:29

Not local but anyway, it's a pharmacy. And if we have there were these signs that said Yeah, due to supply problems and increase demand we we can't we say these items may be out of stock and also limit like one or two per customer. So also experiencing rationing here in the United States felt a little strange. I don't remember seeing rationing in the US. I read about it happening and other countries that have communist economies or something like that. But here in the US

Kit Heintzman 19:17

Would you would mentioned getting masks at Pemberton, how early did you start mask wearing?

Frank Lee 19:27

Oh, that was a first week. Everyone thought that it was surfaces. And so we spent a lot of time cleaning cleaning surfaces especially like the doorknobs here and thing and the banisters. But I saw this YouTube video that was being passed by friends. That was from the Czech Republic. And they said that their rate of severe illnesses seemed a lot lower per capita, at least they were claiming that then other nations around them. And they attributed to the fact that they were making by hand sewing these masks, and also wearing them and also giving them out for free by leaving them in public places. And also they showed how well because of my mask, when I wear my mask, it protects you, and your mask protects me. So that video sort of was going somewhat viral, I think, at that time. And when I saw that I said, you know, that makes sense. We should do this, we should get masks of some kind. And so I and another housemate got masks, he had to order, he figured out a way to order them directly from China, I think it might have been Ollie Express, so one of those services. But those those would take months to get here.

Frank Lee 21:10

So we paid extra for the ones here at Pembroke.

Kit Heintzman 21:15

2020, was a really big year, as is 2021. Thinking sort of beyond the scope of the pandemic, what have been some of the bigger issues on your mind over the last two years?

Frank Lee 21:42

I'm very worried about our democracy. I'm very worried about how divisive our politics is, or has become. I'll admit that I'm one of the ones who when Barak Obama was elected, back in 2008, I thought that we had made a breakthrough as a nation in electing our first black president. I thought that maybe at the time, I saw the colorblind society as the ideal. And thought, oh, wow, this is yet another step towards that will have equality.

Frank Lee 22:37

This is yet another sign of that, of that going forward. And then when Trump got elected, oh, oh, but I have to say that where I work. It's mostly men, because I work in engineering. It's mostly white men. And it's mostly older white men. And people are very conservative. And they are very willing to make their views heard. And so I had known that there was this undercurrent. But I assumed that perhaps where I worked was not representative of the American public. And when Trump was elected in 2016, I thought all No, this really is a sign. And I suddenly felt like a foreigner, even though I was born here in the United States. I'm more American than some of the white folks here who might have just immigrated

Frank Lee 23:54

here [laughter] including you

Kit Heintzman 24:00

The interviewer gestured at herself as an immigrant in the US

Frank Lee 24:07

I guess my parents are immigrants, but I was born here. So never had I felt like I was a stranger in my own native country. And that was scary. And it did not stop. So in 2020 2020, was a really difficult year because there was the very strong and present possibility Trump would be reelected for another four years. And also that that the Congress and the Senate would turn more racist and reactionary and I mean, the result that we got was perhaps not the result that I particularly wanted, I felt that we had swung so far towards there being to America's one of the folks like me in the professional class and an up which includes the billionaires, and millionaires and so so on and so forth. And also, of course, includes a lot of small business owners, and, and so forth, there were those of us who could through hard work succeed. And then there were those folks who no matter how hard they worked, they can never make it. And I think that we have divided into these two Americas. But what seemed to be happening also was that people were voting, perhaps not just based on which America they were in of these more wealthy and more poor, monetarily poor, Americas, but it was also there's some, for some reason, we were dividing based on race, or based on the perceived loss of, for better word white privilege, that, that some folks who are born, especially white and especially male, felt that they were entitled to certain

Frank Lee 26:36

a certain ease of life that those of us who are not both white and male, or, or white, or not male, perhaps, that those of us who are not those things don't experience. Like, I feel fortunate, because I'm Chinese. And there's, there's a certain stereotype I guess, that maybe works both against and in our favor, but at least there's it's plausible, like to an employer that, Oh, I see this is an Asian, they're like, you'll work hard, you know?

Frank Lee 27:22

Or, Oh, this is another one of those Asian homebuyers. Yes. Okay, maybe, you know, we can give them a loan or something like that. Like, I think, I think we're plausible that way. I'm not sure if I were black, what I would experience or how people would look at me as I walked down the street, and that was an awareness that happened during 2020. With George Floyd, when, when some of us, a large number of us here in the United States began to read about racism and anti racism, and about structural structural racism and a difference between race relations and structural racism. And I started to get a better understanding what or rather, I would rather say, maybe not an understanding, but rather, an acceptance that there's the possibility that a black person's experience of the very

same spaces that I visit and inhabit every day, maybe very different than my experiences of those same spaces and those same people. And that that's something that I may never, and I, in fact, I will never know. And that I should understand that, that there could be this difference. And to believe, people when they say that there is this difference, or to at least accept that it's possible. Rather than say, Oh, well, while they were very nice to me, uh, so they must be they must be that way to everyone. No, maybe maybe it isn't that way. Maybe when I walk down the street.

Frank Lee 29:26

People don't give me a second thought. But maybe if I were a black man, maybe they would look at me in a weary way. Or maybe things would happen. I mean, Barack Obama talked about that in one of his later speeches about how as a black man walking down the street, he would hear our car doors locking or or women with switch their purses to the other side, the side away from him or, or people would cross the street to not have to encounter him. So there were that that sort of planted the seed but with the protests that we saw over George Floyd, and, and then others that made it more, more real. And so. So that was one of the issues is racism, political divide.

Frank Lee 30:29

And just this sense that it's more difficult now, to be able to respectfully disagree, perhaps, like there's the sense of danger, almost like if, if I don't agree with someone, and they see that, that I might actually be in danger. There's this sense.

Kit Heintzman 30:54

What does health mean to you?

Frank Lee 31:07

It's a word that we use a lot. In my family, almost even almost as a greeting, we wish you good health. And that health is, is even more important than wealth. So I'll start there.

Frank Lee 31:30

But to me personally, health is, I guess, of freedom to it's free is tied to freedom, it's freedom to, to do things, it's freedom. To have a body that's capable of, of doing things that I dream about doing. Maybe that's you know, I never really given this much thought, I've always assumed that, oh, there's this thing called Health, that's fairly obvious what it is. And that when I'm sick, I don't have it. And I treasure it so much when I'm in bed with a fever, violently ill. And then when I have it, I don't think about it.

Frank Lee 32:30

Because I have. But for me, it's about having a body that can do feeling capable of doing all the things that need to be done, or that I want to do

Kit Heintzman 32:49

With that idea of what health means in mind. What are some of the things that you want for the health of people around you? And how do you think we can make that possible a world where that version of health is accessible to people?

Frank Lee 34:02

there's some theory that it stems from either lack of exercise or poor diet, maybe some, some combination of both. dietary advice is so confusing. I guess I feel I don't have any rational reason to say this. But I get the sense that we're all trapped here in the United States, in some loop that we can't get out of where we wake up in the morning, we're very, very busy all the time doing something, we have to go to work or we have to go to school, we have to do this, we have to do that. And, and then when we come home all now we have to cook dinner. Now we have to, again, there's like a million things to do, and it's time for bed. And then you wake up in the morning is the same thing over and over again. But I'm not sure that that's very healthy.

Frank Lee 35:48

I think that wears on the body over time. I totally get the value of this nation, also a valued communicated by our parents that that hard work is how you succeed in life, whatever that means. No, what that means anymore? Because I, I've been questioning everything. What does it mean to succeed in life? If what we've been doing to succeed in life has caused our climate to start to become unlivable? Is that success? I mean, sure, it probably allowed a lot of people to live in mansions and, you know, buy yachts or whatever it is that they that people spend their money on? Or go on vacations every day? I don't know. I don't know what it is. I don't really understand what drives other people.

Frank Lee 37:06

I guess, I guess that that's what what it really is. But I get the sense that we're all spinning our wheels. And that that is very unhealthy. I, I don't think that that was actually an answer to your question, actually. Because from this perspective, I don't actually see how we can get out of this. It feels like a trap. It feels like we're stuck in this. We're so stuck in this that we don't even know that we're stuck in this.

Kit Heintzman 37:41

How did you come to an awareness of this like feeling stuck?

Frank Lee 37:58

Sort of internally, it weighs on me personally. And maybe I make the leap that it affects other people in a similar way. But you're right, it's not very rational. It's not very scientific. I cannot know what other people really feel. They'll they may, I may ask them and they may say things. But I guess that's all that I can ever get. Maybe it is because I feel stuck. Because I've gone through this over and over again. I wake up in the morning, I go to work and I come home, I cook you know, have to maybe relax some but then realize that oh there are other things I need to do. There are other responsibilities and obligations with the parents or friends. Or sometimes I'm still thinking about work. Sometimes I've worked very late so it just made life feel very single single dimension and not very fulfilling.

Frank Lee 39:31

And I think that that is not very healthy, even if the body stays physically capable. I don't think I could I could consider myself healthy as long as I was stuck in this loop. And I I kind of worry that we all are in some way. I mean, because otherwise We would have enough perspective to look into the future and say, Okay, we see that that we are responsible for all this carbon dioxide and other gases that we're putting into the atmosphere that is causing, you know, a lot of changes in the weather patterns, you know, over long periods of time, which then cause which will cause us great devastation. We should be able to do something about it, like starting now. It should be possible to look forward and, and to invest and to and to start a conversation about changes that need to

be made. But that doesn't seem to happen. There seems to be a lot of entrenched interest in keeping things the way that they are the saying that this is not a problem. Even though the science is becoming more and more clear that it is a problem.

Frank Lee 41:09

It only seems to become clearer every year. And so yeah, I'm not sure. Again, I'm sorry, I seem to have lost the thread. Can you can you say again, what you wanted.

Kit Heintzman 41:28

Thinking about the kind of health the definition of health that you gave one that looks at sort of freedom was a word you used a lot in the sort of explanation of health, freedom to do like access for your body to be able to do things? How do you think we get there so that people can have that kind of freedom?

Kit Heintzman 41:56

What would have to change?

Frank Lee 42:07

See a path forward. But I think what would help even though I don't see how to get there is if we all could somehow magically have free time. Like actual free time where we can be creative, artistic, and not have to worry about survival. Or not have to worry. I don't know how we will achieve that though. Because it looks like we have to spend almost every waking minute of our attention on essentially survival. And I'm not sure how the world got to be this way. Like one of the things that people notice here in Somerville, Cambridge, Boston area is that housing is extremely expensive.

Frank Lee 43:21

So your rent might be might be half of your paycheck. And then gas the commute to work may also be a large fraction, I don't know maybe a 10th or a fifth of your paycheck. So by the end of it, you don't really have much savings to show for it. And unless you're in a career that can earn you this 2021 I would say you know, kind of six figure ish. It you're, you're like constant, you're walking on this treadmill, that's really kind of, you're not making any progress.

Frank Lee 44:11

That's that's what it seems like. So, so I don't know how to give everyone all this free time. But I think it would be so valuable if we had it. Because I think if we had it, then we would maybe start to realize some of these other aspects of life that are also important beyond just mere survival. I don't know I guess I seem to have put things in such dire ways and I'm sure that that people have great joys in their lives too. Yeah, so maybe Maybe it's colored by personal experience. I have choice too. But maybe they're in things that might not be easy to explain. I don't know.

Kit Heintzman 45:14

May I ask what safety means to you?

Frank Lee 45:21

Safety means I can walk, I can more easily picture it and I'm able to explain it.

Kit Heintzman 45:38

What's the picture look like?

Frank Lee 45:41

Blankets and snuggling under the covers. there for me feels very safe for some reason. Especially doing that, under the sun, perhaps someplace that's warm. To be protected. freedom from worry. Yeah, freedom from worry.

Kit Heintzman 46:21

Under COVID-19, there's been a really narrow set of biomedical ideas about safety, thinking within sort of that kind of confined safety from COVID. What are some of those things that you've been doing to try and make yourself feel safe or safer?

Frank Lee 46:48

Ah, one of the things that I do is listening to this podcast that maybe is really more intended for doctors for clinicians in particular. But it's it's these five or six virologists they get on every week, it's called This Week in virology. And it comes out twice a week one episode is by a doctor who I believe is fairly high up in the medical system in New York. The New York City I guess, maybe the tri state area I think he said North well, and maybe another another medical system. But anyway, he gives like the the weekly update on COVID.

Frank Lee 47:48

Like, like papers and as in particular clinical guidance. And then the other the other one with the six five or six virologists that's more about more the science and and often they also talk about other viruses besides just the corona this Coronavirus. But when they do talk about the Coronavirus, it can be quite in depth, and I really enjoy listening to it, I feel I've gotten a lot from listening to it sort of being almost takes you to the frontlines of what the science is considering because they will go through preprints which are not peer reviewed. And because there are six of them there they kind of review it amongst themselves like yeah, I would have liked to see more of you know, whatever. This but but otherwise, this actually looks fairly plausible, you know, so, so on to help provide some interpretation. And that gave a lot of backups, a lot of reassurance I still do it from week after week.

Kit Heintzman 48:59

Is it the access to knowledge? That's reassuring?

Frank Lee 49:03

Yes. And with that knowledge, it has allowed me to make choices. It's allowed me to inform friends and family. Like one friend who had a breakthrough infection. She has chronic obstructive pulmonary disease like a COPD. So she finds it hard to breathe and easy to use and inhale or frequently. She got breakthrough COVID She lives in like a kind of I wouldn't call it congregate housing but it's sort of like senior housing that has a lot of shared common space. And a lot of people don't ask and apparently some people there might be anti backs or something. Anyway, so she got COVID recently. And I was able to tell her, you can go right now to the emergency room and ask for monoclonal antibodies. But you should just do it, like do it now. Because that can really help you.

Frank Lee 50:25

Because they will help if given early. And so and so basically, by listening to this podcast, I know exactly what to do if, if I get COVID. If I test positive, I know that back in early September, the FDA had gave a authorization for monoclonal O's to be given to people, even if they don't yet test positive, but they have been exposed to a known case of COVID. So this is the post exposure prophylaxis. So I would I would do that if I were exposed, like if a contact tracer calls me or someone calls me.

Frank Lee 51:15

There, there were some there were a couple other things. I know, you know, I know about the vaccines, and I know, yes, they have side effects. Yes, it's, but you do need both shots. One shot is not it's not good enough. I know that the j&j does not seem to have the antibody levels. And the efficacy seems slightly lower. But it might still be a good vaccine, and especially now that they let you have a second shot of it might still be good, just kind of understanding how it all works to very, very reassuring. And then now knowing that that their oral antivirals that are coming out, I think that could be a game changer. If they if they work as well as advertised. Also, I also just read one of them really does not work as well as they thought the Merck one they thought is 50% efficacy, but a more careful examination of the data has dropped that to 30%. Now, so Well, we'll see. I mean, we're still banking of the Pfizer ones. For a second. We'll see we'll see what happens.

Kit Heintzman 52:34

How have you been keeping in touch with people over the pandemic?

Frank Lee 52:39

Zoom and calling over the phone. Yeah, mostly zoom calling over the phone signal. Slack. Discord, yeah, this all sorts of just electronic communication seems to be the major way.

Kit Heintzman 53:03

May I ask what it was like hearing that the friend had caught COVID as a breakthrough infection.

Frank Lee 53:16

Somehow I was not surprised, given what she was saying about some of the neighbors being very careless. I was also very afraid that she She could die. But I guess I just told her what I learned. And that and that was that and and also there's this understanding of medical decisions are to be made by the person themselves for for their own body, I guess. So I could tell her about the monoclonal. But once I've told her, it's up to her whether to go get them or not. And that I will respect any decision that she makes. And yet, there's also this concern that she might die.

Frank Lee 54:25

So there was that I was very happy that she went to get them. I was still concerned that she might die. But then she's at the next day. She said, Wow, I'm already feeling better. And then what what ended up being more difficult was the 10 days of quarantine. That was psychologically difficult for her. Yeah, so we were talking on the phone. We were, you know, exchange texts and things like that. And I think that helped because she's Her. Her other friends seem to offend her at this at this time. So I guess maybe because we're remote. Yeah, maybe if she were in person they I don't know, maybe when I had done that? No, I don't think so. But still, I could see I could see why people might abandon you if you have COVID

Kit Heintzman 55:30

This is a bit of an odd question.

Frank Lee 55:32

Yeah.

Kit Heintzman 55:33

Do you remember the last time you had physical contact with a stranger?

Frank Lee 55:47

Wow, that's a very good question. That's a good one. Yes, a hug from a neighbor. When,

Frank Lee 56:19

Well, and neighbors now the stranger I guess. Do you mean by stranger? And actually someone who actually don't know? Or do you mean, someone who's not in my bubble? I guess.

Kit Heintzman 56:31

I mean, you started with the neighbor. So let's, let's take that as the

Frank Lee 56:35

okay

Kit Heintzman 56:36

to come from,

Frank Lee 56:37

okay. I helped with house sitting a neighbor's house. Just found the way that way. She was a way of the art retreat. And it was January of 2020. I helped just go feed the cat. And just make sure like, you know, make the place look the loan lived and spend some time there, you know, reading or things like that. So, pipestem freeze and all that. Yeah. And when she got back, you know, we had a we had a really nice hug. And yeah, I remember that? Yeah, some other neighbors to enjoy hugs. Because we have this neighborhood branch, we stopped with the pandemic started. That was very sad.

Frank Lee 57:39

And I really do miss that. Another thing that I really miss is the folk dance scene here. I don't know when I'll be able to do that again. I like something called contra dancing. It's, I guess it's a New England thing. Where you as a couple dance with other couples. And you choose different people to to partner with for each dance. And it's it's like, it's almost like a way of hugging, you know, like 20 strangers. Succession is not really a hug, but you get to dance. But I have to admit, I really enjoy that. And, and a lot of them enjoy looking at you in the eye. And it's so it's so you know, I'm shy, but I tried to look at them in the eye. Or if I can't, then I'll look at their ear so that they like that.

Frank Lee 58:47

Oh, I still miss that, oh, I'm always so much happier when I've gone. That's one of the biggest losses of the pandemic is not able to do that. And also this music, a group of people that we get together from music jams, we don't get together anymore.

Kit Heintzman 59:12

It's been long enough in the pandemic, that sort of, for those of us who do any kind of celebratory marker, whether they be birthdays, or anniversaries or holidays where we've gone through some of those. Could you tell me a bit about how any of those have changed in pre pandemic slash post pandemic? How sort of celebratory functions look different now?

Frank Lee 59:52

Oh, well, I'm a strange case because I don't celebrate very much. I don't even I don't even consciously celebrate my own birthday. I treat it like just another day. But now I have to remember to write, you know, my new age instead of my old age. Or my new older age I that's what I mean. Yeah. But no, you're right, not being able to get in person for celebrations. It feels like it's been so long that I mean, I'm glad we were able to do this Thanksgiving, the other the other night. I mean, that was amazing. And to know that we could do that, with some enhanced safety by doing the rapid tests beforehand, was not some was not an option that we had last Thanksgiving. And that was, I guess, it means that we can still do these things. But it'll be more inconvenience. For being able to do fun things that involve strangers.

Frank Lee 1:01:14

That's a much more of a stretch, because the issue of trust and agreement is not there not not not to say, as you know, even within families, there is no agreement sometimes as to what is safe. So yeah, it's, it's this weariness about also, this deep appreciation, when we're able to get together like us being able to do this interview together. I'm just, and I have to admit that part of what gives me the confidence to do this, to be together, and you're not in our bubble, and we're not in yours is, is because of being vaccinated, I have to admit that that provides a lot of reassurance in some way.

Frank Lee 1:02:10

Even despite what people say about that there are all these breakthrough infections, and that we know that the vaccines are not 100%. Despite all of that, I guess I come, I come at it from the perspective of if I've done the best that I can, at some point, I have to balance avoidance of COVID with mental health issues from isolation. And so if I've gotten the vaccine, and now three times, I believe that I've helped to deal with the COVID risk enough that now the the health risk of isolation could actually be more detrimental, more harmful to my health.

Frank Lee 1:03:10

So that's, that makes me want to see more people and be a little bit more comfortable. Knowing that, yes, I could get infected. But also the virology podcast just knowing now that that the virus is in the wild is in the wildlife, there animal reservoir is at this thing. It the virus is now going to pass back and forth between the deer, the mice, you know, cats, dogs, who knows what else and us. So it's here to stay. And I think it would be very sad if we had to live the rest of our lives in isolation or behind masks all the time. So, so I'm trying to make a balance of what's healthy in terms of virus exposure versus we seem to have this need to connect socially. That also seems to be very important. And I don't know if I've struck the right balance, but the vaccine is helping in that in that calculation.

Kit Heintzman 1:04:29

How did you come to decide to get vaccinated?

Frank Lee 1:04:33

Oh, I read about how the vaccines were developed. And well, when the pandemic started my immediate instinct just based on the kind of general scientific knowledge I have, was that okay, now that we're in this and that this thing has asymptomatic transition And the only way that we're going to get out of this. And back then we, I wasn't certain that this had an animal reservoir. And I don't think the science was yet and we knew that it probably came from bats. But there was not yet evidence that it was getting into animals here. So I actually had this kind of theory, that if we could cooperate as a species, and somehow be able to afford for the entire human race, like a six week shutdown, like anything that's longer than the incubation period, maybe, let's be safe. And let's say three incubation periods. If we could just have a shutdown and isolation for for those six weeks, and find some way of making sure everyone's taking care of everyone, and so forth, we could be distinct together, and then the virus will die out. And then and then we can go back to what we had. I was so hopeful, but of course, also understanding how divisive everything people are, how divided people are, didn't look like there was any chance in hell that that was going to happen. So so the next best thing would be a vaccine. Like I said, Okay, it's either we eliminate the virus through a coordinated shutdown, assuming there's no animal reservoir, otherwise, we need a vaccine. And I thought, oh, no, vaccines are tricky. Because, like HIV has been around for decades, it could take decades for us to have a vaccine for this thing.

Frank Lee 1:06:54

How are we going to deal with this like, are we going to have to wear these masks and, and clean the surfaces from now on, like, I guess maybe over time businesses and workplaces and schools will all learn how to adapt. People we're talking about UV lights, and ceiling fans, that would kind of spin slowly but what kind of draw air upward, and the UV lights with the shortwave germicidal UV lights that face upwards as well, creating a killing zone of ultraviolet radiation near the top of every room and then, and then the air is constantly being sucked up. So that if we all wore masks, and we could still all go to school, although the office and this will keep transmission down enough that we could do contact tracing and things like that, like I thought maybe we would go there. And then I was amazed when I heard that there was a vaccine already in trials. And when they said that it was a piece of RNA. I was totally not surprised. Like I thought oh, wow, this is exactly what I would have remembered from biology.

Frank Lee 1:08:16

That yeah, this is this genius, you have your own cells make the viral antigen which would look to the body like an infected cell with each cell that was vaccinated would look like an infected cell that's triggering the immune system to to learn from that. And yet these this spike protein thing that comes out that's being coded for is harmless. So I think this is genius. When this comes out, I want to get you

Kit Heintzman 1:08:57

How are you feeling about the immediate future?

Frank Lee 1:09:09

Hopeful but also nervous, anxious. I guess I'm in a place where I'm almost of the opinion that now that I've had the vaccine three times, my next boost will be an actual infection. And that that will probably be okay. Or rather, maybe maybe there's a different way to say it. Given given my understanding that each and every one of us, because there's an animal reservoir for this thing, this virus is not going away. Within the next few years each and every. One of us in this in the human race, you know, all 7.9 billion of us will be infected by this virus, by some, some variant of this virus will be touched maybe multiple times, it's going to happen, it's inevitable. Given that it's inevitable, the only choice that you as an individual can make or that me as an individual can make is, do I face this thing vaccinated? To me? And also do I face it boosted or not boosted?

Frank Lee 1:10:35

And do I want to wear masks whenever I'm in an indoor space with other people who are not in my quarantine group. And so those are the variables I know how to control or that I have some say. So I don't have space over whether other people get vaccinated, I don't have to say so necessarily whether other people wear masks. So I have some confidence that with my next infection, and the constant boosting that we'll get, because I believe that each and every one of us will get reinfected multiple times. I think some of them will be symptomatic, some of them will be asymptomatic, your body will learn to deal with it. And it's gotten a great head start from the three times that you were vaccinated.

Frank Lee 1:11:35

Because from what I understand how the immune system works, it's a it's a search algorithm. Immune cells, this was explained on the virology podcast, immune cells are unlike other cells in your body, most cells in your body, they all have the same genome. I mean, except for there's some slight differences, because obviously, a brain cell is different than a skin cell in the sense that it has certain genes turned on certain genes turned off and all that, and it's locked into position, you know that it is going to be a brain cell. If it if it divides, the, the daughter cells are going to be brain cells, it has to be that way, if it's not that way, that that's what we call cancer. So so it kind of has to be that way.

Frank Lee 1:12:30

But at the genetic level, immune cells have a portion of the genome that on purposely hyper mutates. And what the immune system is trying to do with this hypermutation is to create variation and antibodies and variation, and I guess T cell receptors. So, it does that, and then it tests those against its own cells, like self cells. And if there's a reaction to self, those immune cells die, like they don't, they don't make it. But if there's no reaction to self, then now now it becomes an adult, like a more mature immune cell, now it's kind of ready to, to kind of take its place in the army, so to speak. And, and antibodies are circulating my circulate a very small amount, or with a T cell, it's kind of, you know, going through your bloodstream or your lymphatic system looking. And if it ever recognizes something, then because it's already been trained on self, the fact that it recognizes something is with hot, very high probability is non self. So that it starts sending these signals like, Hey, I found something, I found something, which then draws the rest of the immune system in, which then causes it now, now it has a set of the genetic code needed to make the molecule that can recognize this foreign thing. It now is in a privileged position and is given the resources to divide. And when it divides, those daughter cells will carry a genetic sequence that's very similar, but it's also slightly shuffled around a little bit. So that now it's going to

Frank Lee 1:14:35

it'll, it'll have a very similar shape to its its parent cell, but it'll be slightly different. So So and then if any of those also recognize or recognize even better, the, the, whatever the foreign thing is, then then they get into that privileged position of being able to, to mutate and to divide. So so it's the immune system is searching for better and better recognition molecules or recognition motifs where these foreign things, and what the vaccine has given is part of when you're sick is your body needs to spend a lot of time in this process searching for the right shape of antibody and T cell receptor to attack the either the virus or the disease cells. And the vaccine gives you such a head start to that it gives you a head start in an environment that's safe, where the body's not under any actual harm.

Frank Lee 1:15:45

And so you're, you've already done some of the work you're like, you're like maybe five days or, or weeks ahead of where you need to be when when that Coronavirus comes in, you will very likely have multiple diverse antibodies that will recognize different parts of the virus, and also different proteins that are expressed by infected cells. And it will be a very quick and decisive victory for your immune system. And then, and then those infected cells are taken apart, the virus is taken apart, those proteins go into essentially what's like schools for young immune cells. And they learn again, they're tested against them, and they so so every time you get infected you the breadth and depth of antibodies and T cell receptors expands greatly. So so this is why they say that even if, even though the third shot is the exact same thing as this first and second shot, you'll get better immunity. And it's because the repeated exposure causes the immune system to realize, oh, wait, maybe I should invest some more resources in this thing. I seem to be seeing this thing a lot. Like very often.

Frank Lee 1:17:12

Maybe it's not just a one time thing, maybe I should invest a little bit more. So so that that seems to be my by lay person's understanding from listening to that virology podcast. So I just feel oh, okay, so maybe I'm in a spot where I can now be repeatedly, naturally infected. And yeah, sometimes I might get, you know, a flu or something like that. But we'll probably be fine. But there's also the sense of the chance of not knowing and the chance I live with someone who is who I loved dearly, and my parents who are in their 70s said that. And then it's understood that the vaccine does not work as well in that age group. And so that part's still is very worrisome. It's like after my parents and you know, the person I'm living with, have have gotten their breakthrough infections and survived it, then maybe I'll feel better. Maybe that's what I'm waiting for. I don't know.

Kit Heintzman 1:18:21

What are some of your hopes for a longer term future?

Frank Lee 1:18:32

I guess I still have this hope. I was hoping that this Coronavirus would end up being a practice run for all 7.9 billion of us to learn to work together to solve towards a common goal that we could learn to cooperate. We could beat this thing. Because this is easy compared to the other disaster that we're facing, which is the climate crisis, which is a lot harder to face. I felt that if we could somehow learn to cooperate to deal with the pandemic that would help set up the type of trust and infrastructure that will allow us to then deal with a much larger issue of the climate crisis. And so far, that does not seem to be happening. So I guess maybe this is a glass half full glass half empty moment. Like maybe maybe this is more, maybe I should be more optimistic than them. Because I mean, who knew that we could find a vaccine in less than a year of encountering an unknown virus and And, and I sort of understand the concept of the US and the European countries, you know, the whole concept of putting on your

own oxygen mask first before helping the person next to you, if they need help. So I get that. And I hope that we get to that point quickly where we, there is equity in vaccine access. Because I think that that could be, that could still be a big thing. Even though it seems like it's looking less likely.

Kit Heintzman 1:20:48

What are some of the ways that you've been taking care of yourself over the course of the pandemic?

Frank Lee 1:20:57

I've been taking naps, naps seem to be very important. I'm also under great understanding about the nature of I guess I'm a very driven person. And I'm learning that there's value in slowing down. Maybe maybe what I see as productivity may not be as productive as I think it is. Maybe it's just being busy. Because I guess, I feel like we're a product of this very civilization that has produced this crisis of climate, the climate crisis. And, and this crisis was produced by all these people being so driven, and being successful and working hard.

Frank Lee 1:22:08

So it's put me into a place where I don't know what values are truly meaningful. It's made me question a lot of things, seeing the school strikes. And now I guess seeing workers have worker power, even though they're they're not unionized, is quite heartening. And I guess what how I take care of myself is sometimes I escape, and for some people escape is maybe have a few beers, or have a glass of wine, or smoke something or play video games. I used to play video games. But what I really enjoy is reading about science or thinking about science. Or trying to solve some math problem, or tinkering with electronics circuits are now learning biology, learning how to grow things. There's just so much there's such a wealth of it's like a communing with nature. I know it sounds very strange to say that I'm communing with nature while I'm in a lab.

Frank Lee 1:23:44

But I see that all the things around me in that lab, even there, even though they're made by humans. I see them as parts of the natural world. They're still made of stuff from the natural world, which behaves in the way that it behaves. Not necessarily in the way that we want it to behave, or that we think it should behave. It doesn't follow our theories are theories are meant to help us understand you know, how they function, but they may or may not actually be functioning that way. And it always feels like a communion like a conversation.

Frank Lee 1:24:34

Like a being thing in the lab with a chip that I allegedly designed. Yeah, sure. I, it was a it was a concept in my mind. You know, I laid out the architecture I fleshed out the where the transistors should go and what the sizes are and all of that. And I have a theory about how that's driving how I'm doing this. But at the end of the day, that piece of silicon in front of me is its own thing, it's a piece of nature is a piece of the natural world, it does what it does. If it does, what it does happens to also match what we intended it to do, then we can ship it as a product, but it most likely does not. And sometimes, how we address this at our company, when we realized that we, it will be very expensive to change it. To do what we said that we wanted to do is to actually change the specification to what it actually does.

Frank Lee 1:25:48

So But anyway, I always feel like I'm in a conversation with nature, when I am evaluating whether my chips in the lab or even looking at a piece of code, even though that's, that's a piece of mathematics, essentially, it still

behaves in the way that it behaves. And you have to be humble and be willing to, to listen to see what it's trying to tell you. So I never feel like I'm alone would have been. Because I feel like I'm like nature's right there with me. But nature speaks a very unusual language. It's can be very unsafe, inscrutable, confusing, but also amazing.

Frank Lee 1:26:42

Sublime. That's, that's what, that's what drives me over. I can come home very late from the lab or from work and say, Wow, that was an amazing day. Yeah, it didn't work. It didn't work the way that I thought. But I think I learned something that was quite not what I expected and quite remarkable. It was an interesting conversation. Anyway.

Kit Heintzman 1:27:25

So we know we're in this moment where there is all of the scientific and biomedical research happening around us related to COVID-19.

Frank Lee 1:27:35

Yes

Kit Heintzman 1:27:35

I'm wondering what you think people in the humanities and the social sciences can be doing right now to help us understand this moment?

Frank Lee 1:27:45

Oh, I think there's a huge role. I think, even if we didn't have a vaccine, and we didn't have all this bio, biomedical research, that if we were a simpler civilization, we could still deal with this. If if we have a sense of, of unity and a sense of, I guess, humility, to not think that we know more than we do. And to the extent that, that we're not doing those things, I think those issues are issues that are very deeply rooted, not in thought, not in the sciences of, I guess, the biology of the chemistry or the biochemistry of the disease, but or the virus that's really about us, and how we as humans make decisions, why we choose what we choose why we believe what we believe, why we tell ourselves the stories that we tell ourselves, because it's those stories that then drive how we how we choose to.

Frank Lee 1:29:22

So I think there's something there. And I wish I knew what that was, because I also feel that climate change will be dealt with the same way. I think we could solve climate change in 10 years, if we were willing to cooperate. I think it's possible. And I think, I think we could we could be dealing with the pandemic the same way, even if we didn't have this technology of mRNA vaccines and the antivirals and all that maybe we would I mean, we may have solutions that would be very different or have outcomes that would be, that might seem very different than what in our current framing would be considered a success. Like if success is eliminating the virus, or eliminating, wiping it off the face of the earth.

Frank Lee 1:30:29

That's not what we will achieve, or that no one would ever get sick. I don't think that's what we would achieve either. And that's not what we could achieve with our technology. But I think we would reconceptualize when someone is sick, how the society cares for them. And when someone is dying, how, what how do we interpret

that? So you know, my partner, Harriet, and I were, we started reading this book called The Five invitations. It's by a Buddhist teacher who's also works in hospice care.

Frank Lee 1:31:28

And it's quite, I mean, it feels very foreign to me, because I'm not used to thinking that way. But it seems to make a lot of sense what he says, and I want to spend more time thinking about because that's a completely different way to to address the face, these challenges that we face now. It would solve things. But but maybe we, in our current framing, we might not see them as solutions. Meaning that like people might die of the illness. But perhaps they would be I don't know, maybe they wouldn't just be well, seemingly forgotten, or just be another number in some graph somewhere.

Frank Lee 1:32:39

But we would kind of experience I don't know because I guess I'm I'm too limited in the sciences to really understand this. Maybe the closest thing I can say is an experience with my father who's losing his memory has been a great test for me because one of the things that they've taught me is that it's very important to be useful when you're young, you work hard. You save for the future. You you protect your children you save so that your children will have a better life you're you're there to provide nowhere this he really no where does this philosophy seem to address what happens when you become disabled yourself. And now, you're potentially a burden to others.

Frank Lee 1:34:04

So with his memory loss, I can tell you that it is quite worrying of my mom. My mom is able to deal with it, it seems, but her hair turned from still being fairly dark to completely white. Just in the course of a few years of dealing with this. And I had an experience when I went home where I was in bed was that night, I woke up and he was adjusting my blankets. And I immediately felt annoyed because I guess we have this father son pattern where he kind of treats me like a baby. And, you know, as if I were not competent or capable of taking care of myself, and that he has to do everything for me. And then he left. And then like five minutes later, he came in again and adjusted the blankets.

Frank Lee 1:35:21

And then, like five minutes later, he came in again, and then he just did the blankets. And then I Oh, I think I'm realizing what's happening now. It's it's a short term memory issue, he doesn't know that he's already done it. And then I realized that wait, I guess I can, I can keep being annoyed by this. But there's also another way to see this. Maybe the memory is gone. But the soul is still there. And that's his love coming through. And I was greatly at peace with that fall asleep.

Frank Lee 1:36:16

So kind of a realization that there has to be more to a person than just how, how useful or how much they can contribute? Because I mean, at some point, we're all going to face some type of disability. And up is that all we are are just cogs in a machine, you know, we're not useful, you throw them away. Is that what this is? That's there has to be something more. And I think I got a glimpse of that, to my, to my father. So so that's where I feel that the method of what what people in the arts, people do in the liberal arts can do could be extremely powerful. Maybe even more powerful than what we technologists and scientists can do.

Kit Heintzman 1:37:37

I'd like to ask you to imagine talking to some historian in the future, someone who was not alive during this moment of the pandemic, so it was no lived experience of it. And as I've historian asked you, what kinds of stories need to be written about this moment about the pandemic? What kinds of things would you tell them have to be remembered that are important for the next generations to understand about now?

Frank Lee 1:38:21

I think sometimes something happens. That makes what we're doing seem absurd. And maybe this pandemic is one of those things. Maybe climate change will be the next thing. But the other thing I see that has caused people, some people to radically change direction in their lives, I guess I am to looking into biology. But but also all the other workers strikes all the people quitting. Some people walking out of their shifts even of working on a restaurant, for example.

Frank Lee 1:39:19

I think once in a while, there needs to be a great reset. And I think maybe that there's a story there of kind of waking us up perhaps from this pattern that we'd settled ourselves into. Which sort of work seems to work for some people. It doesn't work so well for other people. I think I think a poverty trap is a very real thing. Right? Now I think people are waking up to, they see that they're stuck in this shitty jobs, they'll never be able to get out of what, you know, out of the debt or, or poverty because rent is so high or more the mortgage is so expensive. And, you know, the things that they need to live are so expensive essentials are expensive health care is expensive. Education is expensive.

Frank Lee 1:40:30

I mean, it's. Yeah, I don't know what story to tell. Personally. Yeah, but I think it would be in that direction. I'm looking at people who have completely or who have made radical change, and how they live their lives. Because I think that they're probably many of us.

Kit Heintzman 1:41:17

I want to thank you so much for everything that you have shared with me today. And at this point, those are all of the questions I have. But I just like to open some space that if there's anything you want to say about the experience of the pandemic, that my questions haven't facilitated the chance to say, to make that available to you now.

Frank Lee 1:41:51

Think of everything that's, that's within me to say. Think so. This is just a very confusing moment in time. There's does not seem to be a map as to what to do. I thought I had one. And then suddenly, it's like, all the foundations are all gone. It feels I don't want to save because that would be to native speaker. And that's not what I feel. It's just a sexual radical change, that I don't think that we who are living in it actually understand how radical this, this pandemic has created has created this opening for such radical change.

Frank Lee 1:43:10

There are powerful forces that want to keep things the same way. And the people who are in high physicians have a lot of power to keep to try to keep things the same way. But at some point, they're going to need the cooperation of the majority of us who do not enjoy those privileges. And this was something that I learned when we were an I

guess we still are but it doesn't seem as imminent a threat. There was the sense when after the November election in 2020, that that then Donald Trump would Donald Trump would lead a coup or his supporters would lead a coup.

Frank Lee 1:44:20

There was that very real possibility. And as we saw, there was actually you know, an invasion of our capital on January 6 and to prevent certification if the election results and I attended a workshop on how to stop a crew. And one of the things that it's that was mentioned about how How crews have to happen very quickly. And they need the cooperation of a lot of the people. And for example, if if business leaders did not go along with it or if religious leaders or or community leaders did not go along with it, it would fail. Like because a government needs administrators needs people to enforce the laws needs people to keep records. And if if those people suddenly had a strike, the crew would not last.

Frank Lee 1:45:53

So, the power, in some sense does come from us. But there are still people who have more resources to make change than others. Because I guess, here in the United States, we have a Supreme Court decision that says that corporations are essentially people with respect to the Constitution and have a right of free speech, and that money is speech. So now, if you're a corporation, you can you have unlimited ability to to influence elections. And I think that that's we're gonna see the struggle play out.

Frank Lee 1:46:56

I see signs of hope in that people are quitting those shitty dead end jobs. And people who are employers who are trying to hire people for their shitty dead end jobs, are now having to increase wages, having to give benefits. Maybe we'll learn to respect people as people rather than based on what they do for work. And I think that, I mean, I don't think we'll actually get there in my lifetime. But like, this is like a slight change in that direction. Like maybe over 1000 years. If we survive that long, maybe we'll learn to value one another not for based on what we do for work, but just for being human.

Frank Lee 1:47:54

For our self expression. I just wish I knew how we could get there, because I would like to live in that world rather than this one. But still, I see that possibility and it does give me hope.

Kit Heintzman 1:48:18

Thank you so much. Thank you