

Josh Wolfe Transcript

- Jim: [00:03](#) Well, hello everyone. It's Jim O'Shaughnessy with my colleague, Jamie Catherwood with another episode of Infinite Loops. Today I have who I describe to people who don't know him, the real life, Tony Stark, as my guest. His name is Josh Wolfe, co-founder of Lux Capital, a board member at the Santa Fe Institute, which is doing a bunch of very cool stuff. I think one of the best thinkers out there of the idea that what was science fiction can often become science fact. Welcome.
- Josh Wolfe: [00:03](#) Great to see you.
- Jim: [00:42](#) Great to see you too.
- Josh Wolfe: [00:43](#) How are you doing?
- Jim: [00:44](#) I'm doing really well? Thank you. Josh, I want to start on a different angle, because I'm really impressed by this and I think it speaks to who you are as a person. That's about your work with the Coney Island Prep Charter School. First off, congratulations, looking at those graduation rates and everything, but tell me, why was that near and dear to your heart?
- Josh Wolfe: [01:15](#) I grew up in Coney Island. Single mom. We lived with my grandparents, my grandmother was a meter maid, collected a parking meter money. My grandfather was the night shift delivery man for The Daily News and the four of us, two bedrooms, one bathroom. I was one of the lucky ones in Coney Island. On a comparable basis, I had a mother who was a public school teacher, taught special ed. Very high expectations pushed me into a gifted and talented program when I was young, surrounded me with the right peers. All of them had very high expectations. If I came home with a 96 or 97 on a test, "What did Jimmy and Adam get?" "Why didn't you get a hundred?" That was indoctrinated to me at a young age.
- Most of the kids that grew up in my neighborhood were black and Latino. They were born into circumstances, not of their choosing. Many of them are in families of four that make less than \$25,000. This is really the definition of poverty. I'll ask [inaudible 00:02:14] because I'll talk about the percentage of kids at 20 on prep that basically fit that mold, which is nearly 80% of our kids, which you've [inaudible 00:02:22] qualify for free or reduced lunch, which is a nice way of saying that they are really living below the poverty line. I was born lucky. I saw

these kids, many of whom were quite brilliant, but were not afforded access, or networks, let alone to even be able to go to college. When I went to Cornell and I saw a lot of peers, many of whom were born privileged with silver spoons and had cars and went on fancy vacations.

I didn't have a car, we didn't go on any fancy vacations. I was resentful. I was envious. It was a chip on my. It was a motivating factor, but I also saw that it wasn't a meritocracy, that there were people in Coney Island of different ethnicity who were a lot smarter than some of these kids that had grown up in [inaudible 00:03:10] or whatever. I wanted to give these kids a shot and I ended up getting contacted by somebody who shared that there was this young social entrepreneur, Jacob mannequin, and Jacob was starting school, and this was all the rage when charter schools were starting to go all around New York City, even Moscow, which was really the pioneer of this had taken on a very strong monopoly, which was the teacher's union and created a set of schools with success charter academy that had very high expectations, attracted a lot of very smart, rational capital allocators, like Joel Greenblatt and John Petrie and others from Gotham.

It created this mobilized effort for change. It first and foremost, appealed to the parents and starting to treat the kids really like scholars. We never call our kids, kids, we call them scholars. There's an embedded expectation when they enter school, even in kindergarten, they're not kindergartners, they're a class of 2029, or whatever it might be. You're already starting with an expectation. You put them in uniforms so that they're not fighting over the hot air Jordans, or whatever, that often discriminates people from projecting social status.

I developed this view that, kid need two things, they need the right heroes and they need a deep desire to learn. Growing up in Coney Island, I grew up on hip hop and heavy metal and basketball. I didn't golf, I still don't, but if you celebrate rappers and ballplayers in Coney Island, the odds of you being either are instantly low, and the consequences of the pursuit of that and the cost of it is very high.

If you could flood the zone with the right heroes, people particularly of color that were scientists, authors, poets, entrepreneurs, I just thought that would be a virtuous thing. I also thought that, unfortunately, anytime that say [inaudible 00:04:56] came to town we were like, "Keep it real." What that really was saying was, "Maintain the status quo and buy my stuff." They were never really revealing how they became

entrepreneurs and how they were marketing and profiting off of the entire population. Jacob started the school, I helped co-found, became the chairman, everybody else sitting on the board, took a step back and left me standing. That was almost 12 years ago. We started with 95th graders in the projects. We had to persuade a bunch of people that let the rec room, the recreational facility turned into a classroom that expanded.

Seven years later, those fifth graders became our first graduating class, 100% acceptance, then go on to college. Now we're K-12, over 1000 scholars, few hundred faculty, multiple campuses and growing. It's important because it is very similar to what we do at Lux and as an entrepreneur. You want accountability, you want the ability to fail, particularly as a school. That's really what the beauty of charter schools is. They're public schools, you get a charter, congratulations, you get to operate, you mess up, you'll lose your charter. That's the way that the system should work.

Jim: [06:00](#) Yeah. Well, congratulations. I was incredibly impressed. Plus, I think that this is the way if you really want change, this is the way to do it. To either lobby for, or try to get somebody else to do it. To me, it just doesn't work out that way. I've worked with a couple of organizations that I'm getting more deeply involved with, like Wall Street Bound, et cetera, where they're doing similar things, but not at the educational level, but at the mentor level. Look, these are important things and if you think that, you should get involved. Congratulations on that. And I think it's-

Josh Wolfe: [06:43](#) The notable thing by the way, is as you solve a problem that you're presented with at the time, the problem is most of these people are the first to attend college in their family, and that's going to be an amazing thing. At the same time externally, we have a workforce that is changing, an economy that is changing and I can make the argument from a very privileged position for my own kids, that I don't necessarily care if they go to college. I think that the workforce and the jobs of the future, many of which are the most important jobs, have not even been created yet. College is not necessarily going to equip people with the best opportunity.

Now, we're wrestling, now that we get all these kids accepted into college, it's a very social, shocking thing to be the first to attend college, to be a way, to be in a certain ecosystem demographically when you don't necessarily fit in particularly socioeconomically, people are going off in their skiing on winter breaks and you're coming back to Coney Island. Now, we're

thinking deep and hard about where's our relationship with the scholars end. It really isn't just after they graduate, it's something that ideally is for life and we're going to figure out are there mechanisms for that?

Jim:

[07:44](#)

Totally, I agree. It's one of the things that I've been thinking a lot about, the idea that, if you speak English and have access to the internet, you are a citizen of the internet. That has very different implications for bright people, smart people. Half the people I have on this podcast, I discovered through Twitter and I read their stuff and it's really good. I honestly believe... My company, OSAM, we will hire somebody in Mumbai. We'll hire somebody in Baton Rouge, doesn't matter to us anymore. I really believe that the internet, as a platform where people who are exceptional and can show work, is going to be transformative. My hope of course is that college can catch up, but I share a little bit of your pessimism there because-

Josh Wolfe:

[08:45](#)

I think the most likely thing is that you see a mass destruction of higher ed that will take probably a generation. I don't think you need a hundred percent of the institutions that exist today. I joke that, there are 20 different versions of my way. Maybe there are actually 2000 versions of my way, but you've got the Sinatra one, you got the Tony Bennett one, you got to do it with Gaga and you'd probably have like 20 that actually matter. With a power law, with one being the most popular, I think the same is probably true of any given curricula. You do not need 2000 plus simultaneous physics, One-On-Ones, there's probably one that is very visual. There's probably one that's filled with poetic metaphor. There's probably one that's very quantitative that appeals to different learning modalities, but you do not need 2000 of those classes.

If there's anything we've seen, it is a propensity for young people to be able to learn online from YouTube and Khan Academy and other things. If you can figure out the social dynamic, the expectations of institutions, and most importantly, the signal value, which is really what college is. It is a way for you to signal that you have been accepted somewhere prestigious and that you have effectively been discriminated from a large pool of candidates and been one of the scarce few to get in. It's one of the last vestiges of legal discrimination that employers can use. If employers start to change and trend towards exactly what you're talking about, Jim, which is, let me try to target high signal competence, which could be discovered from the internet of your capabilities to reason, to analyze, to write, to communicate, to influence, as we see, even with a

cohort of influencers, I think that's where value in the future will occur.

Jim:

[10:17](#)

I agree completely. It's funny because I'm rereading David Deutsch his book, *The Beginning of Infinity*, which I read when it came out and I just had forgotten about, because it really describes the way I look at the world. He very optimistic and yet he's not saying, "Hey, everything's going to be great." In fact, he's saying the opposite. He's saying that we will always have problems, but we will solve those problems with guys like you. That's what you're doing right now. One of the things that I was excited about being able to talk with you about, is I couldn't think of anybody better who could look at this pandemic year that we've been in. We could talk about some of the really good things that are coming out of that. What do you got for me?

Josh Wolfe:

[11:07](#)

Well, first of all, I agree with you philosophically that it isn't the cynic, or the pessimist, or even the complacent optimist that waits for good stuff to happen, is the conditional optimist driven by whatever. The chip on their shoulder, the desire to prove something, the desire for status quo, alpha role in an organization, prestige, money, whatever it is and the society benefits. A friend of mine said, "In greed and avarice lies the hope of progress." Where's the progress coming from? Pretty much every industry you think of, for a variety of macro and demand factors, and then commentorial factor.

Macro, we can talk about it at length, but obviously the provision of very cheap capital, lots of geopolitical dynamics that are creating a tailwind for defense, for reassuring of manufacturing, for reestablishing. Everything from semiconductors to the manufacturer of SI biologics and pharmaceutical drugs, reducing the dependence on foreign production, which also means that we're going to be seeing a lot of redundancy in facilities and cap ex beneficiaries that are going to go all the way down from the semi cap equipment players and the semiconductor space to all really interesting scientific instrumentation, both in academia and production pharmaceuticals.

I think that's one area that feels like it's going to have a decade long run. It'll start very quiet. Then you'll see, large, very large of guests, of people like Blackstone and other few Jassen allocators that have been talking about infrastructure spend for a decade, but you haven't really seen it. I do think you're going to see a big wave also coming from macro forces that are partially, or maybe entirely politically driven, which is targeting a vector of inequality and racism through housing. I think the

Biden administration has been very vocal that, that's one of the ways to reduce inequality, because it isn't just the income gap, it's the wealth gap. When interest rates are effectively, zero and assets are rising people who own assets like you and me benefit disproportionately from those who don't.

Even though I would bemoan the irresponsible lowering of people into many of the Robin Hood like activity, I think that there is a great virtue in the democratization of participation in markets. Ideally if that's done in an intelligent way, more akin to what the bubbles of yesteryear where Buffett would say then, betting on, Tesla beyond me or whatever, or frankly, even the stuff that we fund, which is highly speculative and very risky. That's another promising area.

I think it's already extremely well known the pull forward of probably five plus years of digitization and access and what you and I are doing now. I think we're only going to see over the next year or the emergence, zoom probably still has 90% plus, or maybe it's 80% of most incremental conversations, with Microsoft teams and Google having a little bit. There's going to be a flood of startups that are really finally getting their infrastructure, their act together and trying to re-imagine this just at the time, when I think a significant portion of population is pining to go back into the office. Ideally we have post a Memorial day pushback towards that.

I think it's the combinations and the interests between the different disciplines where the most exciting stuff always comes. In biotech, all of the techniques and the hype around AI to be able to do even principles that are involved in NLP and Natural Language Processing that are now being used, applied to scientific literature or drug designer discovery is just mind blowing. I think anytime you take in a very Munger-like sense, some asset or element from this guy's discipline and reach over to this woman's field and then combine them together, it's just, I think, fascinating. Other areas where I think that's happening, SpaceX, is a huge one.

We've already had the analogy of the rail road going back 140 years, where instead of having horizontal tracks laid down with the main beneficiaries, being the providers of steel and ultimately locomotives and steam and coal and power for that. Now, you shift this vertically, you get rid of the tracks, they disappear, you've got SpaceX as the dominant player today, rocket lab going public soon, Relativity and a handful of others. All are producing the core components for, or actually conducting launches.

Then you have an entire ecosystem of people that are running logistics for small SATs and the people that are launching assets from many countries in a very competitive way to image, produce communication, satellites and ultimately antennas that can be backed down and then creating things. We're funding a company called Varda that is doing manufacturing in space. We just committed to somebody else that's doing terrestrial, rapid manufacturing for satellite and aerospace parts. There are people that are focused on electronic ion and even nuclear propelled thrusters to reposition satellites. There are going to be people that are using AI and machine vision to be able to lock onto satellites, once they're in space to do repair and refueling and even more nefarious things. We will have definitively space conflict straight out of Sci-Fi, as you noted early in the next few years, when China blew up a weather satellite. They did not do that to take a weather satellite out of service.

That was a clear demonstration of kinetic capability to say, "We can blow your stuff up," and they will. They can block things from ground, so I think that's a big geopolitical threat. We rely increasingly on triangulated satellites for our GPS and the disruption of that and the economic activity that is tied to that. Nobody would've thought when we launched GPS that, Uber and Lyft would be one of the biggest carrier apps, let alone autonomous driving, or a same day delivery from Amazon.

The disruption of our global positioning system would be pretty catastrophic to global economy. Defense is a huge area where we're seeing a lot of innovation. Frankly, as I guides change, where people that, either lamented the military industrial complex or question the morality of various administrations, are now eager in part, because they're seeing the rise of a large monolithic peer competitor in China, that probably we last saw in the 1980s against Russia, that unified people. That's probably a good thing for an internal population and a little bit of peaceful harmony which is the antithesis for we have in our current political moment.

Brain machine interfaces, this is very real, as you know, I parted very regretfully with CTRL-labs, where I was the director and we sold to Facebook, really against my strong preference. The ability to influence the machines around us in a very natural, organic gesture away, you've had voice, you've had gesture with video games, but the ability to control all the machines around us, I think is going to be epic. The rise of Digital Twins, simulating objects around us, which is going to be relevant for AR and VR and gaming. For almost every engineering domain

that you can imagine, from construction to military planning, having a simulacra with ever higher fidelity and precision of the thing that you are looking at, is just going to be absolutely mind blowing.

The applications and the layer, that that is going to produce, to be able to not have to actually spend the CapEx to build something, but to design it entirely in Selecto in CAD, and then be able to basically ship that digital file and print it as we do through Desktop Metal or Shapeways, is something that slowly creeps up on you, and then you smack your head and like, "Oh my God, I can't believe we make stuff this way." Pretty much every industry is seeing brilliant, beautiful bursts of talent that are totally indifferent to the political moment and what the 10 years yielding and what the stock market is doing. That's why I always like to say I'm long to science and technology, but short human nature in many ways.

Jim: [18:58](#) That's the way we look at markets, saying the last sustainable edge is to arbitrage human nature, because we do things, we just make mistakes continually, and we make the same mistakes. Just listening to you, I am so excited about this stuff. I'm a grandfather, I've got a seven-year-old grandson, I've got a five-year-old granddaughter and a brand new granddaughter and it just makes me giddy, literally giddy about all of the things I see happening. When the novel, RNA came out, I literally got shivers when I read about the Malaria application, how do people not get incredibly excited about this?

Josh Wolfe: [19:54](#) Yeah, it's interesting. Obviously look, if it bleeds, it leads to bad news and negative surprise, which typically the thing that most galvanized and shocks people, it's the one that gets outrageous infectious, when it gets amplified. Good news, you think about how with maybe over-index [inaudible 00:20:14] we look at, putting a man on the moon and we landed a probe on Mars. We have a robot on another planet and we're nonplussed. We're like, "Oh, Kanye and Kim are breaking up." It's tragic.

Jim: [20:29](#) It's crazy because-

Josh Wolfe: [20:32](#) I definitely do feel invoking, as canceled this year's content was brilliant of Louis C.K. when he did that great bit. When he's like, "My God, how is everybody not sitting in an airplane, just screaming, 'Oh my God'". We're going 600 miles an hour and this aluminum tube, in the air, in a chair," and everything is amazing and nobody appreciates it. I do think that this year people did appreciate the chronical of human ingenuity trade. The fact that we went from thousands of years for certain

diseases to a decade and a half or 20 years, or so for AIDS, to be effectively a livable condition that was a raging epidemic and now far fewer people are dying, to a disease that we found a vaccine for in days, but only is mass produced in just over a year, is absolutely stunning the annals of the totality of human achievement.

Jim: [20:32](#)

It has no equivalent, really.

Josh Wolfe: [21:45](#)

No, and so when people talk about the accelerating pace of technological change, of course, it is scary and it is displacing, but my gosh, what a virtue this is, to be able to rapidly sequence, understand, dissect, mass produced. The technologies, even for like freezing and keeping these things at very low temperature, it's really mind blowing the concatenation of compounding technologies that had to be put into this and it really is inspiring. Like you said, then when all of a sudden these adjacencies, like with malaria pop up and you're like, an entire continent of people that have been suffering, are now, and I'm thinking about this, the counterfactual, if you think about all of the people who have died, not just in COVID, but from malaria, from AIDS, from starvation, that now gets to live, or would have gotten to live, or in the future, these people won't die. The productive potential of these people.

They're just thinking, statistically, even if there's a one in a billion chance of our next meal, Einstein, or Gates or Jobs, or wherever, we've increased the odds that that person is now going to exist and that itself, for whatever innovation breakthrough, or whatever comes to the rest of humanity. It's a beautiful thing. Yes, there is reason to be optimistic aside for the base one, how lucky are we to be alive?

Jim: [22:52](#)

Exactly. It's so funny because I was having that exact conversation with somebody last night, about the idea of, no, if these people don't die, like they used to die, we are going to find there's going to be a diamond in the rough and our chances of getting the next Einstein, or getting a next Claude Shannon are going up, they're not going down.

Josh Wolfe: [23:16](#)

The contrary is of course also true. We're going to get a Bin Laden and we're going to get it a Hitler, and you're going to get all kinds of other people. Really what we have to do is, of course, learn from history and try to reduce the odds that the medium for those things to grow and propagate are very low. It's part of the reason that you probably see me tweet a lot about and talk a lot about Africa. I believe that that entire area is a hail and Maghreb and our indifference, because it doesn't

directly us now is akin to the old adage that chains of addiction, or whatever, are too weak to be felt until they're too strong to be broken.

The chains of indifference here where we just don't care, because Boko Haram in Nigeria and Mali are afterthoughts when it ends up on our shores, we're going to care a lot. I'd be better to be proactive and try to not do nation building, but play a humanitarian role to prevent, hundreds of young girls from being kidnapped and bad elements there when you have actively entirely broken states. All which is to say, yes, the good will happen with higher probability, but unfortunately the bad does too.

Jim: [24:27](#) That's the right way to look at it, from my point of view. You've got to look at, yeah, this progress is awesome, but that doesn't mean problems go away. Some of those problems could be big and we'd got to understand that Africa's a special interest of mine because I went there for the first time in 2012. It blew my mind. It literally blew my mind how-

Josh Wolfe: [24:53](#) What country were you?

Jim: [24:54](#) We were in Botswana then, but recently we were back in Africa with my son and daughter, and we went to Kenya and Tanzania and we were also in South Africa in the earlier trip. I started looking at it through those eyes, like you're mentioning, just thinking the potential for this entire continent is amazing and we better fucking pay attention to it, because-

Josh Wolfe: [25:24](#) By the way, there's been two opportunity. We've seen a lot of opportunities over the years, but nothing either because we felt we were particularly qualified, but there are two opportunities there. We're about to fund, one in East Africa and one in South Africa that are truly spending entrepreneurs. They came to the US, they went to HBS, they came back, they found opportunities in the same way that you saw the Samwer brothers, and do this in Berlin and copycats in the US things.

It is absolutely ripe to have leapfrogged a generation of infrastructure and have incredibly talented people with global networks, the ability to conjure capital and all frictionless systems that they can build in a stack on top of each other, whether it's for financial logistics and other things. You are going to see several, I think, extraordinary entrepreneurs come out of the continent that it's just going to the next generation of the Mo Ibrahims that are going light people up. The narratives will be stories that people rally around in a big way. I think you'll

see a big flood of capital in the entrepreneurial tech community coming in.

- Jim: [26:30](#) Yeah, I agree. We, O'Shaughnessy six family partners, which is our family office is an investor in Anchorless, which is a Dan [inaudible 00:26:41] retreats. I know you know Dan.
- Josh Wolfe: [26:43](#) Well, I'm a personal investor too, just because I love him.
- Jim: [26:46](#) Okay. I was just on the phone with him and he's like, "Oh, you're going to be talking to Josh? Say hi for me." I have learned so much just through this investment in Bangladesh. It's mind-boggling, really. It's like, the opportunity set there, it's just huge and the valuations because of the traditional way that their investors had treated startups was really bad. Now having an actual startup mentality, like a US fund coming in, the opportunities are just enormous. I'm incredibly bullish on all that stuff. Now, of course it is not to say that you're right. We are going to get more Bin Ladens. We are going to get China, trying to blow up our satellites. I am about as on ideological as anyone, I know, it just, let's be practical and say, "Is this a problem?" This is a problem.

They're blowing up weather satellites, now, to show us they can. Okay. I hope that we emerge from, what I've termed, a mental plague, where you have these people shouting at each other over oceans of misunderstanding. People, when they drop into an ideological flywheel, from my way of looking at it, they've effectively gone brain dead, because what you need is... That thinking is not going to advance anything, in my opinion. What you need is practical people who are both optimistic, but realistic about what we need, and so be it, let's do all of those things. One of the other things that I find absolutely fascinating is that, this platform of the internet, I've been thinking about it just tons, because I'm seeing all of this come out of it, whereby... By the way, agree completely about the whole, the last thing.

Look, my daughter went to Yale, my other two kids went to Notre Dame. So they went to very good colleges, but the fact is, accreditation is the last thing left, I think. And I've been studying, learning a lot and we're doing it the wrong way. Children are natural learners, and watch a kid, and again, maybe it's because I have grandchildren and I get to spend a lot of time with them, and I watch how they do things. It seems that we are doing it exactly backward, putting them in a room, telling them, "This is what you're going to learn, and then we're going to judge you and what person you are based on how you can

regurgitate what we've told you." That doesn't make any sense to me.

And so, in the internet with the proliferation of all the various learning tools. Look, and I'm fully cognizant, some are going to work great and so we're going to fail. But that's life. I made a joke the other night, I'm like, "I'm waiting for Hari Seldon to show up." And for people who don't know Hari Seldon, he is the primary character of Architect of Psycho, History in the Seminole, the Foundation. But you think... Let me ask you, are we going to see a Hari Seldon?

Josh Wolfe:

[30:31](#)

I don't think so. I think we're going to have a much more distributed punctuated burst of the extremes, unfortunately, because I think that they're the vocal ones on the far left and the far right. Your large center pragmatism, that auto immersion to solve problems would be the ideal. But I think the reality is that you're going to have what you call brain-dead, but they effectively are brain-dead in the sense that they're very intelligent and they're just motivated reasoning, but they bring that in a sense that they won't change their mind. And anything that you tell them, any kind of contrary evidence will only intervention. The problem is we actually have the illusion that these people are much more populous than they are.

And so, I actually think John Hite, as reference are shown or some of the research that shows, I think on the far left, about 8% are right, about 6%. And then everything else, it feels like split 50, 50 politically, but it's actually much smaller than we think, but they're much more vocal. And I think that that's the main thing to contend with in society for the future generations. It's not the emergency or hero that either galvanizes people towards a virtual center or is, as we just saw, a very unvirtuous one. I think unfortunately is going to be the continued rise of punctuated burst extremes. But it's interesting as you talk about your grandkids and the inspiration you have about the future for them. I was actually talking to one of the younger folks who were on our team and she is just on the cusp between Gen-Z and millennial.

And her peers and she are wrestling with, "What are we going to do? What does the world hold for us?" They've got a whole set of cultural issues that are leading, that are changing the way certain institutions work in the media and academia and in certain businesses. But what was intriguing to me was the idea, and this is one of those directional arrows of progress, that they all have side gigs. They all have side gigs. They all have multiple jobs. And at first I thought, "Well, that seems stressful." The

volatility of that. But then I realized, "Okay, you go back 50, 60, 70 years ago. You worked at a place, you were a company man. You work there long enough, you got your pension and your gold watch and a placard or something. Things were really good, maybe you got your son a job and he would continue to do the same until he resisted and gave up."

But the average tenure of jobs has shrunk from an entire lifetime to 25 years with a second act, to 10 years, to now two or three years. And that has been matched, I think, by the turnover in some of the market indices of the average life of a company on a particular index and the turnover. Some of that is technological disruption, some of that is just increased competition, availability of capital. But it's very interesting to think about how young people that are of college age, whether or not they graduate from college, their ability to have multiple jobs. And she said, "I know somebody who does part-time nursing job in the morning till a certain set of hours. Has online business, which is a personal passion, selling crafts that they make. Drives Uber and then cooks, and at the end of the night, with some of the surplus food, is now selling some of this to some of these equivalent of ghost kitchens that are coming around."

And so there's like four or five jobs, which reminds me, again, this is a generational thing, but in living color. One of the Wayans Brother, [inaudible 00:34:04] Parker stereotype, he's like, "Hey, I got 17 job, man." And he was scrapping on the guy that only had 14 jobs. But it was that immigrant ethic of, "I have 17 jobs." These kids are like that, "I've got 17 jobs, man." And what I realized was, maybe that's a virtuous thing, because if you think about the vulnerability, just like in a portfolio of the concentration, if you lost one job, now you either have the freedom to say, "I don't want that job," or "I want to swap it out. Okay, I'm not going to do Uber anymore, I'm going to go to Lyft."

I don't know, I'm torn with the idea that I should judge that and say, "Oh, where's your purpose? Where's your meaning? Where's your dedication and commitment to one thing?" Versus, "Wow, how lucky are they that they get to potentially have the freedom and the mobility to do this always on work when they want." And so, I don't know how to yet moralize about what is going to be the next iteration or evolution of the gig economy. And then people's natural propensity to want to be part of tribes and movements and effectively what we form as companies. I truly don't know.

Jim: [35:11](#) We made a mistake, and by that, I mean my generation and my parents' generation. The mistake we made was thinking that the period between 1946 and say 1980 was the norm. No, it was not. It was the anomaly. We had just wiped out the manufacturing capabilities of anyone who could challenge us. And so, the idea that you had that job and the gold watch, and you could work there for your entire career and raise a family of four and all of that, that was an anomaly. In the late 50s, Detroit was selling 80% plus of all auto sold in the world. And so, to not think about that and then say, "Well, wait a second, what did the world look like before?"

And so, what you look at, at least if you're me, you look at cities. And what did you have in cities? You had marketplaces. Very much like the description of the person who's almost a Gen-Z, but maybe a millennial. I think that's more of a norm, because it also makes you much less fragile, if you will, makes you more an antifragile, to use one of his terms. But I also think, again, I am utterly impressed with these kids. We employ several of them at OSAM, and Josh, I got to tell you, they can do... It's like they're the first true digital natives. Because Patrick and I were talking about it and he's like, "Yeah, you didn't get us a cell phone. We didn't have cell phones."

We compare it to these young kids we've got, Josh, they can do what I would view as magic. It's quite literally, "Yoh, what do you want? You want this look and feel? We'll have that for you by the end of the day." And so it's like haptic memory. It's like I have haptic memory for cash, for real cash. Which I joke is the original Bitcoin, because you can't trace it and anything else.

Josh Wolfe: [37:39](#) [inaudible 00:37:39] the serial number on it.

Jim: [37:43](#) But they have this internal memory and drive that makes them digital natives, that makes them much more effective, at least in my experience, in my industry. Again, it's another thing that I'm just like, "Let's get out of their way. Let them do these things." I'm very, very impressed by that. So we've talked about, mostly, good things. You've mentioned several bads. I mean, what goes wrong? When you're thinking about it and I think you're pretty much very optimistic, like I am, about certain advances that I think are already in the pipeline. But give me a scenario where that gets halted or detoured significantly.

Josh Wolfe: [38:35](#) Geopolitically, militarily, economically, markets, which do you need?

Jim: [38:38](#) Let's let economically first.

Josh Wolfe:

[38:42](#)

Economically. Well, fierce debate right now, inflation or not and what forms. I've argued for several years, that inflation is already here. It's just an asset price, is not in traditional consumer CPI measures. And I thought during the Trump era that we would see a movement of "Occupy The Fed." I thought it would be precipitated, let me just say it's wrong, what I thought, but I still think that the phenomenon could emerge for a different reason. I thought that the market, which was the number one gauge that Trump monitored as effectively, a proxy on approval would crash. I thought it might even happen in those four days or week or two of March 2020, when COVID was first coming as a shock. But what I thought what happened was that Trump would blame Powell and the fed, and that you would have an occupy fed movement and the fed would be abstract and confusing enough to the masses, would have the symbolic representations with its columns of power that people would occupy the fact, "My God, it's because of the fed."

He would blame that the market is going down. It's because of the fed that your 401k is down and stocks are down. And so, an occupy the fed. And literally, I had joked that you can imagine him galvanizing a run, a physical run on like he did the Capitol. I thought that that would lead to a bifurcation between old and young, where old would go to gold and new would go to crypto, and you would actually see a de facto symbolic run on the fed with dumping on the dollar.

So, that's something that could still occur. As you know, I put this out on Twitter recently because I used to struggle when I would ask anybody at what point is Bitcoin overvalued, and I can never really get a good answer. And I finally got what I felt was a cogent analysis to say most simply, because I've heard all the, "There's 21 million coins," or I would say there's 18, 16 million millionaires of each one on one. There's like seven different back of the envelope calculations, but the one that was most convincing to me was roughly \$11 trillion of gold, roughly a trillion of Bitcoin, this was when it was around \$50,000. So if you had an equal normalization, those reached power, you could see Bitcoin go five X to 5 trillion, go down to 5 trillion. Both as proxies, are bets against the dollar.

And so I think the currency regime is one that is poised for a shock of some kind. That feels to me very certain, whether it is in the hedges that we use against the dollar, whether it is the fed intervening or treasury intervening, and you heard from Yellen two weeks ago, where they were basically signaling this is something that they're scrutinizing or studying, which is the best way of basically opening up the trench coat and showing

that you got a shotgun. And so, that to me feels quite dangerous. China's holding of our treasuries. Some people say, "Well, they'll never jump our treasuries." And I just don't know what the recent sell off of the tenure and the rise of yields, where's that selling coming from. Is it PIMCO and BlackRock? Or is it foreign holders? Who is the marginal buyer right now of treasuries? What is the Fed's role that they're going to have to step in to be a very large buyer and actually see yield curve control?

Japan did that modestly well, it's been studied and overtly talked about how it's been studied as a tool, given that you can't really move anything more on guidance. You can't really do anything else on monetary policy. So it's going to be yield curve control and some modicum of boundary respecting around fiscal. Pete Peterson is one of my LPs and he passed away a few years ago, but I remember when he first invested, was around the time of his book, which the name I can't remember, it was effectively the twin deficits, talking about external deficit in our internal deficit. Which has only grown, and he'd be literally rolling over in his grave right now if he saw how much debt the federal government had taken on and produced. The opposite side, which is, Tyler Callan would say, the real measure is wealth. And it seems like as a percentage of wealth, it's actually not that bad.

I talk about these as these Fitzgerald moments, the idea that you can hold two opposing ideas in your head at the same time, still retaining the function. So, these sort of macro things to me are like these Fitzgerald things. The Twain situation of, "What do we know for sure that just ain't so. What do we predict?" Things are just going to continue and then something shocks the system. I don't have good candidates for that. You have the low probability, high magnitude, impact that's already been speculated, Mike Green and others, about China and Bitcoin and Tether, and is there something more nefarious there? So that would be a pretty big shock to the system. Frauds, made off revelations of anybody that was once highly esteemed and respected would be a big shock to the system. That creates a big reaction or response, "Oh my God, how did we miss this? Let's put the regulations and stuff in control."

On the market side of things, the thing that feels to me most likely, and I've so far predicted this reasonably well, is with the rise of SPACs, you would have rise of pools of capital that would form, that would be dedicated to the purchase of SPACs. Now you're going to have pools of capital that are dedicated to the purchase of pipes, because people are saying, "Oh, that's where

the money is," initially. I think you're going to have a big M&A boom, and that M&A boom will be driven in part by consolidation. I mean, I can tell you, some of our public companies that have large balance sheets of cash now, that far exceed what their operating needs were in prior years by an order or two of magnitude are looking at certain peer competitors that they might want to buy because peer competitors are basically like, "Well, in a normal situation, sure, I might sell to you, but wait a second, and goes back some crazy evaluation."

So somebody will eventually force consolidation. I could see activists becoming quite active in this. They've been quiet, it's been crazy, "What are you going to do? My God, your stock is underperforming. It's only up 30% when everything else is up to 60%." But when things start to, on a relative basis, start to slow, I can see activists coming in and saying, "You don't need that giant pile of cash." And trying to liquidate a bunch of companies. And I think it actually will be really important something, we're starting to would monitor our companies, make sure you have a really strong and really good publicly communicated capital allocation plan at the board level, because you're going to eventually, I think, need to fend off activists. And I think that will also culminate with a AOL Time Warner, a Keystone headline marquee deal.

Some people have said, "Well, maybe it's Tesla with an OEM." My own speculation is that Elon probably want to open up his books to a hundred McKinsey and Deloitte, professionals, with his young CFO, Zach Kirkhorn. But who knows you know, maybe I'm very wrong there, but certainly been very wrong on the stock price for five plus years. But it could be some other big high-flying company that comes out of nowhere that buys an old, but actually cash flowing, even though a declining business. When that happened in the first week of January, 2000, it was about three months, obviously with other mitigating factors, the Greenspan raising rates, Y2K not happening and a bunch of other things that precipitated the March, 2000 beginning of the bust.

But I think something like that would ring the bell. So, that's on the economic and market piece, but I think the most likely next two waves that we're going to see, and I have no idea when, are going to be M&A consolidation activist move. But I think there's a lot more money sloshing around that's going to be coming into this market moment. Even if and as we get little fits and starts in spikes on the 10 year and the current narrative being around well, if the yield normalizes and real rates go up, stocks

are going to plummet. And I think some stocks will, but by and large, I think there's just way too much money looking for growth. And even if you do get to two and a half percent, I mean, that's not real yield.

So, geopolitically, low probability, high magnitude risk is trying to take in Taiwan. It has become way more than just a principled historic. She has already said Taiwan is power part of China, but the relative import of this import of semiconductors is more important than ever before. You're seeing it in not just gaming and automotive, but pretty much every industry. We've got a pittance of an attempt to have a TSMC in Arizona that maybe will produce about 20,000 wafers a month versus the 12, 15, 20 million wafers that are produced a year. So, this is really inconsequential. And I think going back to one of the earlier points I made about the rise of reassuring as a theme is going to be very significant.

I continue to be very worried about just that entire [Saraha McGrath 00:47:27] area in Africa and how that will spill over into Southern Europe, and then over in the US and some of our interests there. I do think the divisive internal US domestic, almost civil-civil war we have, has the potential to be abated by a common enemy in China. There's a lot of reasons why for moral reasons that ought not to be the case, but for the US itself, it's quite notable that in the following of World War I, you had mass, even though you had the ruling 20s, you had a lot of civil disunion. You had people that were fighting over the rise of the red, you had people that were wet versus dry and prohibition, you had the rise of the KKK.

I mean, racism was at an all time high generationally then. Then you had this great unifying thing, which was World War II. When you had Poles and Irish and Italians that came together, it wasn't because they were all from Europe, it's because they were all donning the same uniform and picking up armaments. And then you had a peace dividend and then you had overturn to domestic issues and you had the rise of the civil rights movement, which was a virtuous thing. And then you had the cold war and what's notable, and that was relatively unifying. I've talked about this a bit publicly, but when I was growing up in the 80s, we had a clear and present danger, and you had a whole Hogan, Nikolai Volkoff and wrestling in your head. Red Dawn, and you had Drago versus Rocky, and pretty much every US, first USSR that you can imagine.

What's interesting, is it culminated. I think in 1988 or 89, right before the fall of the Berlin wall, was the last time that we had

complete bipartisan support for US Supreme Court Justice. And so there's something to be said about how internal or external strife balances each other out. If we're fighting some external enemy, we tend to be a little bit more harmonious. And once we're not finding a clear and present danger, externally, we turn on each other. So, if you want to reduce this heat in this political moment, the culture Wars, the increasing bifurcation around racial identity, which I think is not a good thing, I think we need a common third enemy outside the US. It's scenical and-

Jim: [49:55](#) Yeah, I agree. And some of the writers who got this right like Owen Well, for example, the idea we have always been at war with Eurasia or East Asia, didn't matter. I mean, he was obviously... But the important point there was that, the unifying element of, we have always been against them. And so I agree with you on the whole moral side of it, but I also agree, having grown up, I'm older than you, so I remember when we beat the Russian hockey team. You cannot talk to kids today to really describe the euphoria in America, even among non-sports fans, about that moment. And literally friends of... I was 20. So, friends of mine across the political spectrum, that's all anybody talked about. And that unity, I totally agree with you. And obviously-

Josh Wolfe: [51:04](#) You need two things for that. You need a very large congealed enemy, and it has to feel very foreign. And if you look at the enemies that we fought over the past 20 or 30 years, 1980s, you had a war in the commercial realm with Japan, for electronics. That could have... You had the rising sun and a bunch of jingoistic, rhetoric that could have created some greater conflict, but Japan has a liberal democracy for the most part. So it wasn't really funny. It was large. The war in Al Qaeda and ISIS was not a congealed large thing. It was scary, it was foreign. It threatened our way of life, but it was not a focus system. Russia was, China is, that's the best candidate at the moment.

Jim: [51:50](#) Well, I know that you've got a time constraint. So, at the end of all of our podcasts. We came up with a little different thing, which is kind of fun. And that is, we're going to make you the emperor of the world for one day, you can't kill anybody, you can't put people in camps, but what you can do is be an ear worm. And you can promulgate two ideas, two things that all of a sudden everyone has it in there and they're like, "Yeah, I'm going to do that." What do you got for me?

Josh Wolfe: [52:34](#) Wow, that's a great question. Only two.

Jim: [52:40](#) And like a Latin ixnay on the wishing for more wishes [inaudible 00:52:44]

Josh Wolfe: [52:52](#) I think it would be something that would tip people towards more common civility, and maybe I'm biased by our conversation, but it would be something that I'm almost out of Sci-Fi, made everybody believe that there was not a benevolent or mercurial God but that almost like the three body problem, that there was some alien civilization that was about to attack us and we had to be unified. So I think the best thing would be if everybody in the world suddenly believed that the world itself was under attack by aliens. And we had about 25 or 30 years to get our act together and unify as a terrestrial civilization. You would, of course, have fracturing just a Sci-Fi has predicted. You would have people that would be the leavers, trying to hustle and get with Ellen to get on a spaceship and you'd have others that would become worshipers of the aliens and almost religious faction.

But we'll always have factions and fractions that form, but I think that that would be a net benevolent thing to reduce our internecine conflict at different, inside the United States. US versus China, I think just a global collaboration against the perception of alien invader would be a beautiful thing.

Jim: [54:19](#) I like that one. I really like that one.

Josh Wolfe: [54:23](#) Second thing. For me, it would be, I have to think of a pithy way, and it's actually a very provocative question to get people to not believe in invisible things, but as you know, I'm not religious and I think that while religion causes great comfort for many, and faith is a very important thing for people who feel completely hopeless, I think it's also created some of our worst ills. And I do think that you can congeal people and bring them into tribes and community, but without belief in a celestial dictator that wants us to burn if we don't do the 10 specific things that they have in mind and needs our money, but I think if there was a way to get people to, I guess, in the first case, be more benevolent and kind to their neighbor and the second, to be more skeptical in questioning them, everything around them, but all the way towards a virtuous end.

Jim: [55:23](#) That's the world I want to live in. And you probably don't know my ideas about religion, they're probably a little more radical than yours. I was raised Catholic. I'm an agnostic because I think atheism requires as much faith as the Catholics. It's unfalsifiable right now, maybe in the future it will not be, but anyway, that's a whole different discussion. So, obviously I love your second

one, just as much as I love your first one, let's stop believing in ghosts and let's stop thinking that Demeter and Persephone are the reason why we have seasons.

- Josh Wolfe: [56:02](#) Well, as Dawkins and others have said, most people are atheists when it comes to almost every God that has ever existed. Some of us know one God further.
- Jim: [56:16](#) Well, and I always ask that question. Whenever I'm talking to somebody who is really, really religious, I was like, "So, Zeus, he was awesome. He was an awesome God, right?" "There's no such thing." And I said, "Well, you might want to apply that same reasoning." And I don't-
- Josh Wolfe: [56:33](#) The thin line, of course, is in the same way that I would say, "Look, those are stories. And in many ways, they're beautiful stories." The literature of the Bible is beautiful. The stories themselves have moral underpinnings, even though, of course, most people leave out all the stoning and raping of other, but Star Wars is a biblical universe of its own kind. I believe in Yoda, I believe in... They exist in [crosstalk 00:56:58]
- Jim: [57:00](#) And Joseph Campbell helped him do that.
- Josh Wolfe: [57:03](#) Exactly.
- Jim: [57:04](#) I mean, I agree. I understand the power of myth and I understand the power of stories and narratives. I joke a lot about it, but seriously, I mean, come on, the 10 commandments, how are we going to control our society?
- Josh Wolfe: [57:24](#) By the way, and I do have to jump, but there is a beautiful politesseism in these two ideas as I reflect on them, which is, I would like people to believe in aliens, but I would like people to not believe in the natural crazy kid.
- Jim: [57:38](#) Back to Fitzgerald. Listen, so much fun talking to you finally. Thank you, I know you're a very busy guy. So, this is going to be a really fun one for us to release and hopefully we can do it again.
- Josh Wolfe: [57:53](#) Thanks, Jim. Great to see you.
- Jim: [57:54](#) Thanks. Great to see you. Cheers. Bye-bye.