Max Arbitrage Transcript

Jim: 00:06:11 Well, hello everyone. It's Jim O'Shaughnessy with my colleague, Jamie Catherwood with a very special guest today. I've been looking forward to this for a while because Max Arb, as you will know him on Twitter, that's not his real name and much like our anonymous Jesse Livermore, who's an OSAM research fellow, I met Max on Twitter and I think that Max is a fantastic example of what you can accomplish through Twitter. By that I mean, I've banged on about this for a long time, but Twitter is only good if you take the next step, in my opinion. The next step is to get to actually know people that you enjoy and banter with on Twitter, whom you find smart. You're going to see in a minute that Max is very smart. We just got together and it's kind of the same way that Jamie got a job, so, Max, welcome.

Max: 00:07:18 All right. That was a great intro. I can tell you're a pro at this.

Jim: 00:07:23 Max, your you're a doctor in the New York City region, but that isn't really what you and I talked about when we got into some intense conversations. Why don't you just talk a little bit about Twitter and what we were talking about that led us to decide, yeah, this would be a good podcast.

Max: 00:07:44 Yeah. I don't look at the world as different fields being split up. There's biology, there's chemistry, there's physics, there's math, there's art, there's music, there's finance, there's economics. I feel like a better way to approach things is to look for quality in different things and try to interlink them together. Part of the reason I think that's good to do is because nobody else usually does it, because when you're taught things, you're taught in a silo. That means there's a huge gap between fields. It's my lazy approach, I find the gaps between fields. I'm looking for things that people are not looking at because there is no department in that thing, there's no department of neurological music yet. There probably is actually now. Now there's probably everything. I'm always looking for the space between fields, the stuff people don't talk about.

Max Arb is a joke on maximum arbitrage, which is really a joke on Jeff Bezos and his website, relentless.com and his joke about going after margin. My thought was like, "Oh, that's awesome." Eventually we're going to have this situation where whatever the gaps are left in society, software's going to try to eat whatever crumbs are left, and society is going to be this large person with a bucket of Kentucky Fried Chicken with the last crumbs. Finding every last little dot of margin that's left until it's all gone. So it was like a joke. I didn't expect to connect with

anybody. I just went on there to look at what people were, I started off doing it to get information on basically investments in science. So like nine years I was on there, never used it because the information stream was too fast.

There's just too much stuff coming. I went on there twice, and I was like, I don't know what's going on, I can't keep up with this. Well, by the way, things are moving faster now, but I can keep up with it. That's the first thing, the sign there is obviously that I changed, Twitter didn't change. I got more accustomed to fast information. To me, that's a signal in itself that everybody should keep aware of is if you're comfortable in Twitter, you obviously have worked your mind, not in a negative way or positive way, but you've changed your mind and you may not have realized it. The amount of information snippets that enter your cortex at the rate that they're entering it in is not anything that most organisms have ever dealt with for that complexity level. That's one thing. The other thing is thinking about what Twitter is. Is Twitter a piece of software that we run on our cell phones to connect with each other? Or is maybe Twitter something beyond that?

To get to those deeper questions, you really have to start thinking about information. You got to think about what is a network? Is a network something invisible, intangible, and are we made of matter and energy, and these are things that we've conjured up? Or, my theory is maybe it's backwards and information is what's real and matter and energy is conjured up. Part of that, to go to the basis, because I'm a doctor, so I think biologically, and just think about where we, how we are here. If you believe the science, the science says there was some organism at some point, one cell that had a strand of DNA that duplicated. Theoretically now, and this has been debated for decades, now they seem to think all of us come from that same strand of DNA. All right. Maybe there's a dozen.

Maybe there's a million. Who knows? It seems like we might all be descended from one single strand or piece of information that's been iterated over and over and been AB tested billions of times. If you think about information theory that way, then a human can't actually die because then what you have is the information is its own beast, its own thing. It's iterating and it's wearing us like clothing. It basically started, then it takes up pieces of matter and energy, and compiles them together, it uses them to predict patterns in order to duplicate and iterate its algorithm again. Then, when it's done with us, it discards us and goes on to the next thing. Part of me was laughing because

I grew up, I've always been an atheist, but I always think about people in other religions.

When you're a kid, you [inaudible 00:11:27], I don't take any of this stuff seriously. That's all a joke. It's like, why are we even wasting time on things none of us understand? Back then I used to think about things like soul and all these concepts, like yeah, that's crazy. Now I'm thinking of this information theory, and I'm like, sounds basically like what everybody was saying in every religious book the entire time. Really the problem with this theory is, which the problem for me has been, how do you shake yourself off of this theory? In other words, if you know that it is true, that we're all iterated products of one piece of informative code, then things get very complicated. What is war then? I mean, war to us is something very emotional and negative, which it is. It's also useful in order for us to let societies grow. From the information theory perspective, it's just the beta test between two software products that are just going at it to figure out which one predicts the future better so it can duplicate its iteration.

How can it use modern energy in the most efficient way to get a step ahead of the other algorithm? By the way, all these algorithms are one algorithm, so it's just one, it's one venture capitalist that is competing with itself essentially. What is it trying to do? It's definitely not survival of the fittest. That's one thing I think people should understand. There's no such thing as survival of the fittest, as far as we know, there's non-survival of the non-fittest. Very, very different situation. If you start thinking in terms of purpose, like I still haven't found what I'm looking for kind of stuff, you've inverted it. The thing is, you're still looking because those that weren't looking stopped passing the total on. Right? In that sense, the reason I'm bringing all this up is Twitter to me is more like a large information kind of monster and we're little, almost automatons doing its bidding for it.

You spoke to the mayor of Miami I remember, and a few people picking up their cell phones in their pockets, messing around with their phones are now going to start terraforming a city, right? They're going to, we're going to terraform Miami. Miami's going to definitively change atoms and energy at very large scale. Then if you calculate the number of atoms that have to move on their phones to make this happen, the ROI is going to be not, it's not going to make any logical sense because we're dealing with information. We're not dealing with atoms. That's my general concept of how I'm thinking about things from an information perspective.

Jim:	00:13:46	Anybody who listens to this podcast or reads what I write know probably instantly why I fell in love with Max when we had our first conversation, because he's talking about everything that absolutely fascinates me. I think that, I love the idea that we're information. It's something like, in some of my mad scribblings, I had written once that we are essentially made up of information, light energy and consciousness, and I like your way in to the information thing. Then, of course, you're talking the Gita here, right? I'm sure you've read, yeah.
Max:	00:14:24	Yeah, unfortunately, because as an Indian kid growing up, I was rebelling against everything taught to me. That was the worst, when you tell your parents, this is a bad idea. Then later you get older, you're like, all right some truth [inaudible 00:14:34]. It's trying to try to ease that into conversations without giving them too much credit. Yeah.
Jim:	00:14:39	It's like the old Mark Twain line. He said that when he was 17, he was so incredibly embarrassed by how stupid his father was. By the time he turned 21, he was amazed by how much his dad had learned in those few years.
Max:	00:14:55	At least [inaudible 00:14:56], at least things are, that's the good feeling is knowing that I'm not the first idiot that went through this phase either.
Jim:	00:15:01	We all go through it, Max. We all go through it. Also, I've been reading a lot of evolutionary biology and psychology. I've read a lot, I know quite a bit about it and I find it fascinating. I love your idea about it's not the fittest genes that survive, because that was something that was hijacked by the Social Darwinists.
Max:	00:15:24	Correct.
Jim:	00:15:25	Used for a lot of really shitty reasons.
Max:	00:15:29	Absolutely.
Jim:	00:15:29	They used it as a reason for racism and as a reason to keep certain peoples down and for all kinds of really not cool things. Expand on that for me a little bit about, because that's a really fascinating theory and I haven't thought about it that way. It's not the survival of the fittest, but it's the dying off of the un-fittest. Expand on that if you would.
Max:	00:15:57	Well, I mean, it's almost like one of those things that's just mathematically factual. Meaning, if you just look at the way

things work in nature, what ends up happening is there's a copy error rate of genes. Just like there is what people call six sigmas in business. There's no way to get rid of all the little imperfections. Obviously there's a rate of failure. The rate of failure, if the rate of failure is too high and there's too many mutations, you can't make proteins because the code becomes so wacky you can't get anything out of it. If the rate of mutation is very, very low, you get fixed. Basically what happened it that environment, if matter energy changes around you and you have a volatility storm and you're stuck in this kind of frigid rigid environment, you're fragging, then you go away.

So there's this mutation error rate that has to exist in organisms. Then, what ends up happening is, as long as that organism duplicates its gene before it dies, then everything's cool. In business, you have this concept too. It's just that. That's what that is. That is, when you look at a company, if a company has cash, has no fixed cost, I'm making a fictional company, and you just have very low costs and you have a positive gross margin, you're probably going to survive. It's the debt, it's the debt that kills you, the ergodicity, where you're basically just wiped off in that one moment. The survival of the fittest, non-survival of the fittest, by the way, the weird thing is, that's one of those traditional things where that's not something that was screwed up.

Meaning, when I learned biology, they told us that in the beginning. In my undergrad, in the mid nineties, they were like, they're going to be telling you that it's survival of the fittest, that's completely bullshit. I don't know why they're saying that, there's no evidence it's survival of the fittest. If you have a business, for example, and your mindset is, like today with a low fixed cost business, you can take that information and use it. For example, beta testing, AB testing that Google does, and everybody else does, that's just a genetic system. You basically try a bunch of things and whatever doesn't work, you remove from the equation and now whatever's left is there. Now it's hard to wrap your mind around this concept because it really has to do with intentionality, because sometimes you end up with the same result, but the intentionality is different and anybody who's run a business for a long time knows it's very hard to predict the future.

A lot of times things that seem dumb from far away are probably not the dumbest idea. You try and iterate a bunch of AB tests. You get rid of the ones that don't, so all organisms are doing this, by the way, not just humans. Everybody's doing all these kinds of things constantly. I think it's important for people

to understand. As far as the Social Darwinist, all that stuff, look, I grew up as an Indian kid in the Midwest, I'm aware of all these racist tendencies and everything. There's a lot of problems with that stuff. You also think on a deeper level, going back to the information theory, it's like, why did these people start saying that stuff? Well, it's because if you go back and you realize that we have to predict matter and energies, randomness long enough to duplicate our code, well, then there's going to be different types of tribalism.

There's going to be a ratio of tribalism that's a pragmatic, normal thing that some information called algorithms are going to have in order to survive. So a lot of that stuff, I think just come from people deep down, have tribalistic fears and try to stuff in whatever information they can get and say, okay, here's a piece of evidence, let me stuff it into this, and so I think that's where what it really is. I feel bad for them sometimes, because I'm like you're really missing out on good stuff and you're wasting time on the nonsense. Then, is what it is. There's eight billion people, eight billion genetic tests happening every day, I guess.

Jim: 00:19:20 I'm sure you've read Claude Shannon and all of his-

Max: 00:19:20 Oh, yeah.

Jim: 00:19:24 Okay. I did a podcast with Brian [Romelli 00:19:27] a little while ago, and he's a really interesting guy. Brian maintains that we have reached the Shannon limit of being able to, the amount of information that we as human beings, as biological organisms, can actually take in. He has some ideas for how to extend that and how to solve that, which involves technology, but in a very different way than say Musk's neural link or anything like that. What are your thoughts on that? I mean, and I don't think I'm giving anything away if I say that that is an area that you are a specialist in, right?

Max: 00:20:06 Yeah. I mean, look, I listen to that Podcast. I don't listen to a lot of podcasts. I probably listen to one a week at the most, and even then, it's in the background. I listened to that one really carefully because I know what he talks about. I see the optical illusions. I love the stuff that he sends. His account is awesome.

It's a little bit off for the following reasons, because again, it comes from the standpoint of thinking individually and thinking about our own egos, making sure that we matter in the system, which is important. I'm not disagreeing with any of this stuff. And in terms of the finance concept, it totally makes sense,

business. But you could go back a step further and think like, okay fine, even if your sensations are limited, what does that really mean? Because at this stage of society, our bandwidth is not, what's holding us back. It's we're building layers on top of layers on top of layers. That is what's happening. We're creating abstract information layers on top of stuff.

The inputs can be very simplistic. They don't even have to be at high speed, but as you start stacking layers on top of each other, you can start multiplying things in different situations. So all Legos basically look the same, but if you go to a factory or something, and you're looking at different Lego shapes and stuff, you're not saying to yourself, "All of these are made from Legos." I mean, you are saying that partially, but you're also looking at the different structures. And then the question you can say is, "Well, what's the maximum bandwidth of those structures?" There's really not, as long as you can keep on building Legos, right?

So on a personal level, are we at the limit personally? I think we're way past the limit. Way, way, way past the limit of the normal person's ability to handle information. And you can just sense that with the way people get information and pass it along. At this point, people don't ... You can just measure the latency time. That's all you have to do. What's the latency time between the time somebody receives a piece of information and sends it along? And you can go back to the beginning of humans and you can see what that was, and you can go to the printing press and you can start following these things. Latency time of spreading new information within like months, years, decades.

And in the base sensory level, meaning looking at a hunter, the sensory times there are much quicker. The feedback times there are much quicker. On a societal level, though, these abstract thoughts that we're talking about, that rate of new information was relatively low. The daily Twitter intake of abstract snippets of information is probably what a human experienced in their entire lifetime. I don't even think it's probably true. It's probably less than what most humans experience in their lifetime, if you're actually trying to absorb those messages.

So I think he's right about that. The problem is I don't think people care. What I mean about that is I don't mean about his idea. His idea is awesome. People will care about that. I just think that if you keep on giving people more and more and more information, because we evolve to predict future, we need to predict the future, we're going to continuously try to

find ways to fit that in to predict the future, no matter what it is. And if the velocity is super fast, nobody cares. Just keep on stuffing it in. Maybe if you get the information faster, high-frequency [inaudible 00:22:59], maybe then you can predict the future better.

By the way, a lot of these things I'm saying are not knocks on any of these things. You could be good at any of these deals. I know there's a high frequency trader, but you know what I'm saying is as fast as you go, you can always go faster. And as long as somebody thinks by going a little bit faster you can predict, they're going to keep on doing that in terms of information levels.

But I don't recommend to most people to get too carried away about Neuralink. All right? So Neuralink may help with Parkinson's, it may help with Alzheimer's. This concept of interfacing your brain with the outside world in bits and the bandwidth limitations. Are there limitations to typing? Of course. Are there limitations to all those senses? Yes, but the problem is when a photon enters your eye and it goes in there and it triggers and starts this series of senses, the first thing to remember is it all happens based on physics. So at every point along the way, you're transferring kinetic energy. There's no magic there, right? So if you think about it that way, you have a serious problem, which is every single time that time iterates forward a step, the structure of brain has to have changed, which basically means that as you're interfacing with the outside world, in order to truly appreciate what's showed, your brain structure has to change biologically. If it doesn't change biologically, nothing actually went in.

So the problem is what is this interface going to do if you're connected to interface? Is your brain structure going to be able to keep up with that pace? It's not. You can just look at biochemical reactions. You can't speed up the speed of biochemical reaction. In [inaudible 00:24:27] neuron, there's a gap and the gap is neurotransmitters. And the neurotransmitters are sped by a biochemical process, which is not something you can turn, speed up. So there's always going to be this severe bandwidth limitation there that I don't think people understand. We're not going to be Keanu Reeves in the matrix, although if that happens, I will be signing up. I'll be signing up. After fucking shit on it on Twitter for about six months, every piece of data, I will be there first in line.

Jim: 00:24:55 Well, you retain a flexibility of mind ...

Max: 00:24:58 Right, exactly.

Jim: 00:24:59 ... which I think I deeply believe in. Listening to you, it made me think of something that I read just recently and actually I'd seen before. And I don't know if this is true, you'll probably know better than me, but this was someone making the statement that there is no documented case of schizophrenia in people who are blind from birth.

Max: 00:25:20 I don't know if that ... Oh, go ahead. Keep on going.

Jim: 00:25:22 Yeah. And the theory, because I used it in one of the threads that I wrote, called The Thinker and the Prover, and I kind of stumbled across this at the time, was somewhat controversial theory in psychiatry and psychology, that one of the thesis was that schizophrenics have filter failure. In other words, you and I, and Jamie, our filters are working beautifully and we're being hit by all of this information and our quantum computer in our head is just saying, "Nope, nope, nope, nope, nope. Yep, this one's fine," and we're getting a fraction of it. And then there's this theory that schizophrenics have failure. They don't have those filters or they're not working properly. They're letting too much in.

And so what I find interesting about the whole thing is I think I agree with you in terms of just the biological chemical processes that have to occur. But that artificial intelligence, for example. So I was having a chat with another guy who's one of our research partners at OSAM, and he's a machine learning expert and he's a really nice guy. And he's really good at telling you the truth about machine learning and telling you the truth about AI. He came up before the pandemic and gave a day-long seminar for everyone at the firm. And he opened with something that I just loved, which is okay, so anything that you've heard from a marketer of AI is bullshit. Don't listen to it.

Max: 00:27:05 He might be able to expand that to a very large arena.

Jim: 00:27:11 Well, yeah. You and I have actually chatted about that, but so it's like one of my things that just gets me going is when I see these concept ETFs come out and it just drives me mad, because I just look at it and I'm like, "That was designed by a marketer, not by a portfolio manager and doom will follow."

Anyway, what he said, because I had this theory about machine learning, which was so I'm pretty lucky in that I am sort of oriented pretty well towards symbol manipulation, that kind of

thought. It's pretty easy. It always came easy for me. And so I'm very open to all sorts of maybe things that maybe other people wouldn't be, because I don't really have beliefs. One of the authors I love, Robert Anton Wilson, says, "I don't have any beliefs, but I have many, many suspicions."

What I was asking him about was, because you had said it is in our genes to predict the future. Right? And so I believe very much in that if you're trying to upgrade your mental models, well, one of the outcomes you should hope for is that you're right more often than you're wrong, right? And those are things that you can aggregate and judge in aggregate, and you should never just judge one time.

Anyway. So but the idea of narrative and the way narrative dominates most people, because most people are deterministic thinkers, which I think is a mistake. But anyway, my question to him was so will machine learning ever get to a place where it can tell you what and when, but not why? And I think that it will never be able to really tell why. And he was really funny. And I said, "Will people who are narrative-based thinkers going to be able to accept that?" And he laughed and he was like, he goes, "I've never really actually thought about that question." And he goes, "I always just naturally assumed that they would invent a narrative afterwards," like the marketing guys, right.?

Max: 00:29:29 That's right. I was just going to say, they'll come up with a lie and people will believe it, and the SEC is too busy to catch them, so [inaudible 00:29:34]. I don't think that's going to be an issue, because one thing I've learned about narratives is they work out best if there's no reality behind them. If there's a reality behind the narrative, then you have a problem with somebody of uncovering rocks.

Somebody said to me once, a smarter, older business guy, a board member that I know is like, "If you have a fast blind growth kind of company, the last thing you want to do is really get revenue." And once you get revenue, I mean, in terms of if you're just selling and he's like, he's joking. He's like, "Once you get revenue, the last thing you want to do is get profit." And he's like, and I was younger then. I didn't understand what he was saying. And he was just like, "You don't understand. There's multiples that they sell at. And once there's [inaudible 00:30:11], nobody cares." And now you're getting multiples of [inaudible 00:30:13]. He's like, "I want multiples of shit. I want multiples of magic." You know?

So it was like, "Yeah, that's really true." And I said, "Why?" He goes, "Because once people have something they can poke holes at, then you have a really big problem there. Then you have to play defense." And everybody knows that once somebody casts a stone and there's a crack in the window, playing defense becomes really, really difficult.

If you're throwing a stone at Space X or Tesla, it's like, all right, well go ahead. What are you throwing it at? There's nothing to throw it out. It's not there yet. I'm excited about seeing Space X, for example, either reverse into Tesla or whatever they're going to do. I don't know what they're going to do or how they're going to do it. But I feel like at some point it's going to go public, because I have this theory that if it went public, it could easily become a $5 trillion company or something crazy. And the reason I have, and by the way, I don't know if it's going to happen. These are just guesses for fun.

I think it's going to happen because nobody will know how to evaluate it. And some smart physics nerd will know how to evaluate, and some dork like me will read this thing and be like, "Yeah, that makes sense." You calculate the geometric space and you figure out the range of how many satellites there are. You calculate the amount of collisions, and then you work your math backwards and you say, "This is how much density you can put up and this is how much dollars you can make." And then I'm like, "Nobody cares about that. Nobody on Wall Street gives a shit about those ideas." They're just going to be like ... There's a rocket emoji, so they're already set for a high valuation. They're just going to put a lot of rocket emojis and get people excited and pumped up and boom. Then once it's there, then they can start backfilling into that revenue, hopefully, over time.

I think these things may actually really work. I mean, I think now what I'm saying doesn't sound maybe as crazy. Like Matt Levine, who I really respect. I think everybody respects. I mean, he wrote himself. He's like, "One thing that could happen to GameStop is it could actually become a real company or it could become a ghost company at 25 billion and just float around in that weird space, like now what do we do? Right?

So narratives kind of shape everything. I don't think that deterministic thinking is bad. I used to think deterministic thinking was bad. And that's not what you said, by the way. I'm cheating by twisting your words. I think what it is is just it goes back to the same thing. As a predictive pattern, humans have this bad mistake of thinking of us as individuals. And I think that's just because of the way our information algorithms work.

But if you want to step back and look at organisms, you can determine if an organism's an individual or a group based organism. There are ways to observe them and realize what are these organisms doing? And some tend to be more solo and some tend to be in groups and some tend to be like insects, where there's just tons of them together and they create beehives.

Humans are obviously much more like insects than any other mammal, without a doubt. The only difference is that we're modular, meaning we can change the program of our society over and over and over again. But we're not an individual species, even though we think we are. If we were an individual species, then we would all probably still be hunting. And if you think about it, like in my house, I hadn't made anything in my house, nothing. Everything I made in my house has been made by other humans. When I wake up, I want an egg and cheese sandwich, for example. I'm not going out and getting the eggs. I click a couple buttons with my phone. This guy shows up 20 minutes later. And eggs come from some farm from somewhere that I don't know, and the cheese comes from some other person. Each one of these products has been iterated by a million people before me to get to this point.

So I think one thing I could say on this podcast I hope people start to realize is like just step back for a second and realize that you probably didn't contribute as much as you think. I haven't, and the reason I say that is because you have to think about the denominator. What's the denominator of how much information we have in our space today? It's way larger than people give credit for.

So to your point about deterministic thinking, all that stuff, the deterministic thinking is just a tool. It's one of the modular tools we have. In other words, you can have a probabilistic leader, like a Genghis Khan, who might be looking at a game space in a God mode kind of variety and looking at things as options and thinking about game theory, maybe. Obviously he didn't call it that back then. I mean, that's actually funny thinking Genghis Kahn saying, "Time for some game theory," having a Twitter thread about it. But in that world, do you want a bunch of agents underneath that person who have probabilistic thinking, too? That's not going to work. That society is going to get destroyed in those environments. That person's going to start to be like, "Probabilistically, things look worse for me than for Genghis. I should get on my own and disappear into the forest where by probability might actually be relatively peaceful, back when they still had some survival skills."

So deterministic thinking is critical, because not every bee in this hive is the queen bee. And that, by the way, I think is more and more might be some weird biological thing. This Dunbar's number and everything. I'm starting to have this not a concern, but it's like, I don't even want to say it's a disappointment. It's just a realization that human society seems to have this weird permitted structure to it. Some people want to absorb massive amounts of volatility and most other people do not want to deal with volatility. They're glad to give you some margin for you holding the volatility for them, which tells me that we're not really an individual species.

Jim: 00:35:09 Wow. I mean, that's really fun. And so I would come back to you and say that there is a difference between our evolution as biological creatures and aggregate social evolution, right?

Max: 00:35:09 Yes.

Jim: 00:35:29 So aggregate social evolution has power lawed us into zooming, and I've got my iPhone here. We don't show the video for this, so no one will see it, but you can see it. And so I love your thing, though. It's an avenue I've never actually gone down, and that is because, well, I have. I was searching for any human society in history that I could find that did not have a hierarchy. I came up empty. I came up empty. Even I thought, I got really excited about some hunter/gatherer tribes in wherever they were, Borneo or whatever, but literally they did. They did have hierarchies.

Max: 00:36:19 You know why it's impossible, by the way?

Jim: 00:36:20 Why?

Max: 00:36:21 I [inaudible 00:36:22] off, but there's a simple reason, which is that we have a bias. We have a split sex species. So what happens is by definition, even if there's no other humans around, you already have a time duration mismatch. On one hand, you have males, myself, who's basically like COVID. I inject the DNA and I leave. I don't have to be around. I want to be around, that's societal, but the point is women cannot do that. So by definition at a biological phase, there's not a symmetrical system.

Now, when I say hierarchical, in this case I don't mean one is better than the other ones.

Jim: 00:36:51 No, I understand.

Max: 00:36:52 But there's a time duration mismatch, and time, obviously, at least in our fictional universe, whatever people want to call this, it seems to be that that alone is going to create a serious, serious problem. And you've discussed this, I think, with Brian about human birth and the size of the brain and the fact that the way it works with us is that you can't just leave the species, and they're not going to write them off on your own. So already you have all of these very deep biological things that are built in.

So the concept of the child and adult in humans, there's no such thing as a child bacteria, in many cases. You split off the bacteria and the bacteria is ready to go. It's doing the same nonsensical thing it's always been. Well, it shouldn't be offensive, but you know, that algorithm I'm not a fan of, and that's doing its own thing. But the point is that thing that you just did, by the way, I love that you went through that exercise, because once you go through that exercise, first of all, if you think to go through that exercise, you're already starting to have [inaudible 00:37:45] suspicions about what it means to be human versus humans, and I think people have to start determining on their own. Where do you want to sit on this?

I mean, individualism is very important, the way we think about it in American context, because it allows us to predict more, because it allows us to make us ... Think about, literally, I guess, the observe [inaudible 00:38:05]. When you have a bunch of independent automatons that are out in the universe searching and looking at matter and energy patterns, now you have a larger amount of standard deviations that sigmas a variety of volatility you're seeing.

So ideally for the observance phase, what you really want is a bunch of automatons out there getting as much information as they can possibly get. In the decide and act phase, though, things get a little bit more complicated, because if every automaton decides to do whatever they want to do, you have Brownian motion. You have phase cancellation events. Now you're not really accomplishing what you want to do.

So humans have to exist in that space between how do you allow individuals to go out and see different patterns of volatility that exist? But at the same time, if you're not using that information as a group, then someone else is going to destroy you during that decide and act phase, basically. So this idea that we're kind of hierarchical, I think it might just be like a mathematic. It's like a kind of genetic biological thing. Until you

change the way biology works, I don't know that you can get around these things in any other way.

And I think part of that is like, for me, there's a philosophical point of all this, which has made me a lot more chill out about other people. When my employees do something that used to piss me off, now I'm kind of like, "Well, this person did what she did because or he did because a microsecond before they did it, their brain structure was the way it was, and it was like that because it was like that a microsecond before." And if I take control of the Plinko chips in the world and all these algorithms are freaking stuff out, maybe I should go a little bit easier on people and not be upset about humans, because I don't want to go get eggs and do all this crap on my own.

So a lot of this stuff seems far reaching, but it's kind of a practical way to think about stuff. You don't have to get angry at people on the road when they're in front of you and they're blocking traffic. It's just like it's calmed me down a lot, thinking about us as a group. So for me, it's been helpful. Maybe it's religious to some extent, but it's-

Jim: 00:39:57 Yeah. So that's really interesting, because I think you're right on in terms of that, in terms of like- I've gotten older, I've become far more forgiving of other humans and the idea of fragility, right? Human beings are much more fragile than we think they are, I think, at least it's been my experience that they are. But I also want to jump back to a point you made, because this is another thing that I think a lot about and try to figure out. I don't think I've formulated it well enough, but you might've added some ammunition for me. And that is this, I am often befuddled by people's aversion to risk.

Now I realize, I was joking with my lawyer today on the phone and he always makes fun of me this way, he goes, "Jim, you would ruin any sample we put you in," right? Because what I think is normal, right, other people think I'm insane. My wife wanted-

Max: 00:41:03 Did you see Free Solo? By the way, did you see the movie Free Solo?

Jim: 00:41:07 Yes.

Max: 00:41:08 Would you do that?

Jim: 00:41:09 I would not do that. That's really interesting. So, that's a really interesting bifurcation. So all of the crazy risks that I take tend to be of the mind or of the investment variety. Whereas, I think my amygdala is functioning just fine. Now, I might have armored it around because I had been a quant since I was 20, so it's maybe like its died a little bit, just because I can't make use of it, even if it's there.

So kind of like you screaming at people in traffic, you realize, look, it's not going to help me as a unit, so what the hell? But the question I want to ask for you is, so do you think that the very basis of people who like you and me, who are both entrepreneurs, right, do you think that entrepreneurs just have a different genetic makeup than other people?

Max: 00:42:12 I think everybody does. In other words, if you take any variety of things, let's say climbing a wall and you graph humans on their risk taking ability on climbing a wall, you're going to get some type of distribution. It's not going to be an exact distribution. I don't want to piss off [inaudible 00:42:25]. We know it's going to be a weird kind of distribution, but the point is you can take any risk thing and you can have a distribution.

Some of it can be nudged. I read your book, What Works On Wall Street, I remember when I moved to New York and I was a medical resident and reading quantitative things for someone like me helps me with risk a little bit, because I'm a risk-taker but at the same time, I'm not the guy that's going to YOLO 100% of my funds with the GME. I'm never going to do that.

I'm very much kind of like, let me place a lot of bets in different things. My biggest risk taking is meeting people and being open-minded about networks and not having a personal assistant filter the people that got to me. That's my biggest way of thinking about what are risk in people? Do I need to be friends with only doctors? Do you want to be risks with artists or friends who are artists, and a bunch of ... That's a risk in the sense that now I'm leaving my comfort zone, I'm leaving a place where it's easier for me to maybe make money by being friends with this group of people and, or learn more about my field and, or what's normal is sticking to industry and I'm taking the risk outside of that zone.

So a lot of your things might be related to that, I think because I can see you're a very social person and that you have a wide variety of individuals. So some of your risk-taking might be secondarily to the fact that you're comfortable making friends of a lot of different varieties. So your models of how human

brains thinks are probably a lot better than others. So you're probably not as surprised or concerned about trust because you have a much more adept model of understanding that.

That might be a little bit of the learning part. The genetic part, I definitely think there's going to be differences, but you can go back to the bacteria concept, right? You can just think about if energy and matter follows a set of rules and those rules create, it's kind of like hallways getting light, it's going to create different permutations of randomness that exist. And if our goal is to capture patterns, then there's going to be Sigma's of patterns.

There's going to be things that happen one in 10, one in 100, one in a 1000, whatever, March of fives or nines, whatever they call it. So the question then becomes is what level do you want to hedge at? What level is your risk? When does somebody's risk drop off? Everybody has a point where they just can't deal with it anymore. For example, if a meteorite crashes into the earth, I don't have any backup plan for that, right?

Now Elon Musk does. Elon Musk is thinking one or two or 10 standard deviations beyond the way I'm thinking about risk. He's thinking already of a way to manage that layer of risk. So if you start ranking hierarchical levels of standard deviation of risk, what you basically find is people who make a lot of money and work their way up the chain, essentially act as shock absorbers in the system for larger amounts of volatility and variability.

And I've noticed a lot of really wealthy guys, billionaires, multimillionaires, centi-millionaires, that they ski off the side of mountains in Europe and they do all sorts of crazy stuff in their 70s. I think there's definitely a relationship with all these things that have to do with it. And if you're somebody who's very secure and very risk averse by definition, you're going to be giving any margin of volatility that's left in your life, you've sold it off essentially to somebody else.

And in return you get peace of mind and your brain gets to be happy. I don't think there's anything wrong with that. But I do think people should think in terms of that, standard deviations of risk. How much do you want to hedge? What's climate change about? Climate change is about, even if climate change is coming, how much does it cost to solve the problem? You have to figure out the cost of the premium. You have to figure out the odds of the standard deviation. It's a typical insurance pricing contract kind of a thing. So the reason I went

roundabout to decide this is because I think what you're discussing is not even just a human thing, I just think this is how organisms work. They try to survive long enough to handle the smallest standard deviation event. And then once that structure survives, then the ones that can handle the second or third standard deviation events are usually around whereas the one that could only handle the one standard deviation, is gone.

So over a period of time, you see this explosion of standard deviation, comfort. You see that in crypto. In crypto, there's stable points. I laughed so hard when stable points came out because I was just like, you guys are so angry about the FED, the FED is acting like a massive stable point. That's all they're trying to do. I mean, it's completely made up because people quite frankly, and reasonably are scared of the idea of the system collapsing because nobody has any clue what will happen if the system collapses.

So of course, a rational act of what did they do? They try to cover up the volatility. Just like a dog tries to cover up their shit. That's what's going on. So the crypto, it's going to be decentralized, but yet immediately they're like, let's get some stable points, let's get some yield. You're just trying to dampen volatility, man. You're doing the same thing. That's the octopus joke I made the other day, is that an octopus' brain is decentralized, but he can't be in four oceans because decentralization to me is a joke the way people are talking about it right now.

I'm not saying the companies, I'm not saying DeFi, I'm not saying the whole industry. I actually think it's really cool, but the narrative around it is insane. It doesn't match at all with reality. I mean, the Game Stop thing, the Trump thing, the Arab spring, the me too thing, all these things have this one thing in connection, which is that it's the rise of basic autonomous agents connecting through networks instantaneously in a way that's never happened before, right?

And so really what I think is happening there is the organism that I was talking about in the beginning, the one that's thrown into all of these iterations, it wants to predict the future, so one of the things its having as its determination, which humans are determining themselves is how tight on this OODA loop you want to be. Do we need to sense more things? Do we need people to act autonomously? Or should we do everything that soviet style way and centralize everything?

I think they're kind of missing the boat because it's great to get a lot of people's information, but there's a limit, to Brian's point and what you were saying earlier, of how much information [inaudible 00:47:48] this to work. And then the other thing is, what about the deciding and acting part? What's the plan here? Like, we're just going to have a bunch of autonomous agents doing whatever the hell they want and there's this ...

Today, I was laughing because I love the California Silicon Valley group, but reading and I'm reading all this stuff where they're talking about how oh, we're just going to put this on crypto and then you can buy as much shame as you want. I'm like, who's going to sell you options at 100 times leverage? Somebody's on the other side. Where's this other market participant? They're like, it's going to happen.

I'm like, you think the autonomous agents that are centralized who live in their parent's basement, they're going to do it? No hedge funds going to do it. If they do, they're just going to screw you even worse. And the SEC won't even know what ... they don't even know what a blockchain is yet. So when I'm reading this stuff, I'm just thinking of, if somebody gives you a hundred to one leverage the first thing you have to ask yourself before saying if anything is rigged is, why?

Why are you giving me a hundred to one leverage? It turns out there's actually reasonable reason. You can go back and read about options in there and how we got to where we are. I'm not saying reasonable as in, it's a great thing to do, but I'm just saying there's again, volatility dampening of the algorithm, seeing that there's an equity system to convert risk of reality and try to dampen it. You get that layer going after a century and then you take options and you try to dampen the volatility of that.

And then that doesn't work. So you have the market housing. And they try to dampen the volatility. If that doesn't work, if they don't work, you go to the feds, they dampen the volatility, right? And then at the end, what is it sitting all on? Not really turtles, but narratives, right? At the end, we're all just kind of, worst case worse, every human just has to say each other, we don't want to all die do we? So, that's the theory kind of.

So all those things about de-centralization are crapping out because I think they don't understand sometimes, I think this happens when you spend too much time with really intelligent people, if you read a lot of books, which I love of reading books,

and just frankly I'm a nerd, if you spend too much time with nerds, it's probably very bad for you. [crosstalk 00:49:37]-

Jim: 00:49:36 Uh-oh, I'm in trouble. I'm in trouble.

Max: 00:49:40 You don't want to spend all your time with nerds. It's okay to spend 95% of your time with nerds but you've got to find the deterministic thinkers and spend time with them because the deterministic thinkers are the majority of humans. That's 97% of humans. If you want to study a beehive, you can't learn a beehive just by watching the queen bee. It's not going to work.

And I'm not talking about people hierarchically. I know people could see that. I'm not saying that, I'm talking about differences in terms of risk volatility that people can take. If you spend a lot of time around people that are able to handle these things and think academically, and for example, read a book like yours and think quantitatively and logically, you're missing out I think on the normalcy of what really exists, because this thing we were talking about this nerd thing, it doesn't really exist in other species.

This abstract concept of metal layer thinking, of taking individual items of basically mathematical code, placing them on a sheet of paper and then analyzing again, right? These are layers upon, layers upon layers, now we're playing with [bit 00:50:39] space. We're not really playing with atomic space ever since the Gutenberg Press. That's really what matters. If you want to transport yourself in another galaxy, you don't have to do that. You just have to find some other life on that side and deem them an operating system code and then they can rebuild matter on their side. That's fine.

The Silicon Valley guys, the bankers, doctors, what people call the elites now, have got to spend more time in a regular bar. It doesn't have to literally be a bar. I'm not telling people to go get a drink, but you've got to understand more and I get to do that because I have a medical practice. In my medical practice, I have no well individuals working. And when I say normal, I mean that in a good way.

These are not people who are reading meta thesis, they don't even know what Clubhouse is. Nobody in my office probably knows what Clubhouse is now, all. They all know what GameStop is now because it hit the news, but they're not getting into all that stuff, generally. They have kids, they have regular stuff to deal with. They're dealing with divorces. They're

single moms. This is regular society we're talking about here. It doesn't exist on Twitter by the way.

I mean it does, but it really barely exists on Twitter. I rarely find something on Twitter that if I said it to somebody in my office, they have any clue what that meant. And if I try to explain some of their concerns and put them on Twitter, people wouldn't understand what they meant, I think. So I really do think that if we want to move society forward, we've got to start realizing, you've got to do something about deterministic thinking. You can't get rid of it. I think people have to understand it's not going to disappear.

I've already tried to make it disappear. I've already tried to dream like, everybody think probabilistically, everybody would be a poker player. Hey, put a little money here, put a little, it doesn't work. I mean, you've tried this. People either want to do it and they'll do it. Or if they don't want to do it, it's almost the worst thing to do to try to push them do it because then they get upset when they lose.

Jim: 00:52:16 Wow.

Jamie: 00:52:16 This is my beef with the cancel college movement. Exactly what he just said. The people that are all saying that are all on Twitter and in that type of nerdy elite crowd where maybe they can get away with it. But are you dumb? 95% of people still need a college degree to get a job? We can't all just be Silicon Valley, whatever. Like, no.

Max: 00:52:37 That's toxic, Jamie. I mean, I agree with you. I post tweets and delete it, sometimes that stuff kind of pisses me off. And the reason it pisses me off is I'm an Indian kid that came around when I was three. The government gave me a loan to go to college, low interest rates. I got grants, I got scholarships. I went to undergraduate. I went to med school. I came to New York city with basically $325000 in debt, finished my residency, still in debt.

Actually, probably I got more debt because New York's a fun place and I'm stupid and young. And then I graduated third year, I was like, oh, I've got pay all this back. And then I was able to do that and get to where I am today because I was educated in a field that is not easy for people to learn. And I really go nuts when I read that stuff because I'm like, who's reading this stuff?

If you're making a couple million dollars a year and you have 20 million dollars in your bank, sure, your kid doesn't have to go to college, you can fund 50 startups.

Jim: 00:53:30 Exactly.

Max: 00:53:32 And then anyways, it's like, your kid goes to Phillips Exeter and he skips out of college [inaudible 00:53:34]. I mean, [inaudible 00:53:36]. And then I'm reading that stuff and the two fellowships a great idea for smart kids. I'm not anti-this, there's a group of people. It's a very rare group of people. It's a very rare group. I'm not one of those people that could have left high school and created a multi-billion dollar startup. So I'm glad you mentioned that Jamie, because that's a-

Jamie: 00:53:54 It pisses me off to no end. It's like, oh shocker. Kid who went to private school his whole life and his parents that are well-connected thinks that you don't need to go to college after parents seeded his online content creation startup or whatever.

Max: 00:54:08 Why do you think that they do it?

Jamie: 00:54:08 What?

Max: 00:54:10 I know we're not supposed to predict what other people think, but it's not a court. So I guess we can do that. What do you think they do? I have my theory, but I'm curious if anybody else-

Jamie: 00:54:17 Because I think it's just cool. It just is like, I'm different. I'm not going to conform to society. I think that I have this radical thought that's really not that radical, but just because it's different, I'm going to ... I don't know, people think it's really sophisticated for them to have that take and it's just not. It's just so impractical and illogical.

Jim: 00:54:41 Max, what's yours?

Max: 00:54:42 So I think that is true of the follow-ons. I think that's true of the second derivative individuals that are following. I think what it is, is that the old want to keep the young, and I don't mean that in a negative way. I think that's a biological system, meaning that, people used to have 10 kids because you know what you needed on a farm and you would place your bets. And then this is just how society worked.

That's the natural evolution of humans by the way, not to have every kid survive, is a natural system. And so I think what ends

up happening is, I call this casting couch businesses and it sucks when I say this on Twitter because it makes it negative and it's not meant to be because I don't think people do intentionally, but you've got Hollywood has casting couches.

The modeling agency has this kind of similar concept. The record business has the same concept. This system is you find somebody who's 16 or 17 years old who's talented, you pile debt onto them in a way that's a little bit confusing and then later on, they're kind of stuck with that situation and trying to deal with it. So I feel like a lot of what this is, is people, it's just like the NBA, they don't want to wait for that intelligent person to go to college and go through four years of education. They want to get them while they're young and energetic, when they're bright and they're fresh and there's nobody in the world telling them that there's regulations, there's nobody in the world telling them that there's an ethical system and there's all this other garbage, just focus on the product, get the product out there as fast as possible.

I think there's some of that going on. I read that Uber book, the Travis Kalanick, the whole story around how, however you say his name, and it's like, on one hand, the guy seems like a jerk based on what the media, but the other hand, it's like, I know what it's like to get a cab when it rains in New York in Midtown as a brownie, you can't get one. The app with the Uber, I can get anything.

So he barreled through all the regulatory agencies essentially, destroyed the taxi industries in many towns. The medallion went for a million to whatever peanuts. And so I think to some extent if you're somebody like Thiel or somebody who's really smart, you're thinking to yourself, I don't need the 17 or 18 year old guy to go in and learn all about this other stuff.

I don't think it's intentionally done to be cruel either. I don't really think that. I just think that and it's partly true, when I was 17, I was much more idealistic, every year you stacked on me afterwards, the more I learn about society, the more I reigned in my emotional thought process and started thinking, oh, I probably shouldn't do this because it could hurt XYZ person.

Somebody in the civics class that I was forced to take as an elective in college, which I hated turned out to actually matter now. Now I'm realizing like, oh yeah, I remember that professor saying that, that's a pretty shady thing to do. And I remember nodding my head thinking, what a scumbag and now I know not to do that. So I think some of it is really just that, because there

are, let's face it, there are some incredibly smart 12, 13, 15 year old ... I mean, Jamie, you're a great example.

You're not 15, but you're still for your age, you're very bright. So I wonder if some of it's just that and it got out of control, but I don't know, Jim, you see this stuff but I know you [inaudible 00:57:34].

Jim: 00:57:33 I love your idea of the first order, second order, third order, because I think when I look at it, I really don't notice because, listen, I have a BA and I have a BA because I didn't want to disappoint my mother. I was the kind of guy who at 16 or 17 was trying to figure out the stock market with paper spreadsheets and going down to the James J. Hill Library and listing to Dow 30 for all the way back to the '20s when they started, right?

So I was chomping at the bit. So I'd read a lot of the stuff but already. And I would be lie, this is just fucking boring. This is awful.

Max: 00:58:23 You're a self learner, right?

Jim: 00:58:23 Yep.

Max: 00:58:24 See, that's the whole problem. That's what I was saying. I understand this as I got older, not everybody's a self learner. I never went to any lectures in college, and it's not because I'm weird but I literally used to tell students, give me your notes and I'll copy them. And I eventually had to start paying them because it became a problem. People were like, this guy's just taking our notes, he's going to the test. And it would help me because I wasn't wasting time in the lecture.

I don't do well getting information that way anyways. And I'm fine with reading stuff. So, that's another problem. What do you do in a society if one group of people think that everybody is a self learner and that the first pot of everybody when they were buying GME stocks is to go research options, trading and derivatives market and understanding clearing houses.

That's what I thought when I moved to New York, when it was 2003 or '04, I started learning about options before I put any trades on. I read your book. I don't know how many business options books I read, but I was kind of like, if I'm going to learn about it, if I'm going to do anything, I'm going to paper trade, that's stupid now. I mean, I'm not dumb, but compared to the

average person, for me to think that, that's what most people were doing now that I think back about it.

I remember talking to residents and they were like, what are you reading about? I'm like, I'm reading this book by Jeff Augen about derivatives trading. And they're like, why? They're like, you buy a house, you wait a year, you flip a house and they were right, they all made money except for me. So I think the self-learning thing might another problem and there's a social component, right?

COVID has screwed all that stuff up, but let's be honest, college is also about getting distracted and try to find a way to survive with distraction. Distractions are much more important in terms of the human beings progress than anything else. If you're unable to detach yourself from all the distractions that exist in modern society ...

Max: 01:00:00 ... able to detach yourself from all the distraction that exist in modern society, you're not going to be able to focus on stuff. So, college is good for that too because if you go to college, you should be able to have some type of social life and network, and also be able to work. That's a test and if you screw up, guess what? You don't have a [inaudible 01:00:18].

It's a free test in a sense. You get the loan, you pay it 50 years later or whatever it is now, 100 years later probably, but you don't... So I think in that way, it's important as well for a lot of people just to socialize outside of your parents' houses and to start making... You got to get scammed. You got to go out and find out that some relationship happened and you met somebody else, and they screwed you behind your back. I think people have to learn those kinds of things, and it's better to learn that I think school than it is real life. In real life, it can be catastrophic sometimes.

Jim: 01:00:47 Interesting. I don't think I'm giving anything away by saying that the other thing that listeners might be interested in is Max is not just a doctor, as you probably have guessed. Max is an extremely successful entrepreneur. How did you make that shift? Was it just something you were like, "Well shit, I should be doing that over there because [crosstalk 01:01:12]."

Max: 01:01:12 That's from when I was a kid. When I started mowing laws, make some money, first thing you think about is, "Is there a way to scale?" The concept of scaling of business to me is just a normal way of think.

When I was in college, I went to the fraternity, whatever, initiation thing and I said, "No, this looks like fun. You go to a place and they give you free drinks. This sounds great." And then they were like, "You have to pay to join us," and I was like, "I'm not paying to join." I'm doing the math; I'm like, "I don't see this ratio working out for me." Then, I figured out there was a way I can instead throw parties and maybe charge someone instead and starting thinking in terms of those kinds of things. A roommate of mine that did a lot of stuff like that too. He owns restaurants now.

So I think there's some people that do think constantly, like... When eBay came out, if I saw something that I knew about that nobody really thought about, I would buy it and sell it. I'm always thinking about basic arbitrage opportunities. It's that weird part of my brain that annoys me sometimes where I'm just like, "It doesn't matter. Just let it go." But if I see some deal, there's definitely some Fran... I feel like Fran Lebowitz or some old school New York guy that's just one of those people who's always looking for that edge everywhere, and I can't let that go.

And so, I'm not really an employable person because if I work in a normal job, in a hospital, for example, they have cash... It's not about the money. It's more just the concept of everybody hates hospitals. Everybody hates hospitals. In this country, everybody hates the hospital business model. They hate the CEOs. They hate the doctors. They hate the whole system. And for me, to sit there and know why they hate the system...

Because again, I don't spend all my time with the nerds. I spend a lot of time with people who hate the system and them telling me all that stuff. I'm like, "All the things that we have to do to change this stuff, nobody wants to change it," so then I was like, "I don't want to be involved in this stuff anymore. Everybody hates us. And I don't want to do something where everybody hates me. Let me go open my own practice." Now let me just... Listen, literally my business model was the following. Find some businesses, oh. I don't know if you left.

Jim: 01:03:07 No, we're here.

Max: 01:03:09 It's Adobe Flash Player. Apparently, that's an issue, I guess that's got to be updated. But anyways, so I started thinking. I'm like, "It's really simple. You get a private practice. Every doctor's office in New York City, unless you go to one for really rich people, is going to have annoying people that hate your guts at the front desk. They're going to give you a lot of crap. They're going to talk to you really nasty, assuming you can get to them.

They're going to put you on hold or you're going to have to hit 15 buttons to reach a human being."

So the first thing I was like, "We're not having any automated phone service. It's always going to go to a human. If somebody has to hit a button, I'm quitting my own business. I'm just shutting it down because I don't want to create something I hate anymore, and I hate everything in medicine, myself, as a patient. So, that was the simple concept.

Listen, if a doctor needs something. I don't want the doctor telling the secretary to call our manager, so the manager can then send me or another doctor a message four hours later. Let me just give every doctor in New York City my cell phone number and if they're sitting in a room and they have a problem, they're just going to text me directly. So, just things like that about like, "I'm so frustrated with the system," like, "Can you give me something that it was more like Spotify or Google search and not something that's like the [DNV 01:04:19]." And so, just have to do it.

And then the question is, "How do I do it? I don't have any money." So you just basically like you find distressed deals. You wait for a distressed investing environment. I graduated exactly when the market in this country for medicine the Medicare was cutting/slashing the fees. The business people were leaving. The percentage rate of doctors going to private practice was catastrophically dropping. I might be the last guy of my age... I don't know if there's anybody younger than me in this city that owns a private practice in my specialty. I think there might be one, but it's fairly rare. Everybody after me works in the hospital. Everybody that I interview says, "How many weeks of vacation am I going to get?" which is fine.

Basically, I work seven days a week, but probably that's because I don't see a difference between work and play. I just try to do... When I'm reading cases, which annoys me sometimes, I just say to myself like, "What? The government helped you get to this point. Society backed you the entire way. You got to this point now." Like, "Now, it's your turn to do what you have to do for society. This is the job you have to do. Stop complaining about it. Do you want to go and hunt? I don't want to go and hunt." I think I've mentioned that about five times, so whenever I remind myself of that, I'm like, "Okay, this is the way to go."

But being an entrepreneur, I think the way I tell people to think about it if you don't know what you want to do is just think about fixed costs. I'm not talking about Silicon Valley venture

capital. These guys have tons of advisors. Just the average guy, just think about your fixed costs. Don't burn through your fixed costs. Do as much stuff as you can on your own. If you do most of the stuff yourself in the beginning, you're not paying yourself, and you don't have a lot of fixed costs... which by the way, in my business, there is; you have to be a little bit clever about that... then, what's the worst thing that's going to happen? Your friends are going to laugh at you?

Your friends want to laugh at you anyways. If your friends are all work in a company and you decide to split off, the best thing that can happen to them is your business fails because then everybody feels like they made the right decision. So you can't be angry if that happens. You have nothing to lose. If your business does well, then you take your friends out and you buy them drinks, and you buy them food, and you make everybody happy. So I think from my case, it was just like I had to do it. There was no option. I can't hold my tongue, so I'm not really good at...

Like I was training at the department hospital and I guess you were supposed to not say that there's a problem when you go around the table. I don't really understand that. I was 30 years old when I took that position and they got to me in the first couple of meetings and had a list of problems with the hospital. There were serious issues and they were just like, "We'd had those issues for 25 years. Nobody cares about that stuff." They were like, "The worst case scenario, the government bails us out." All the hospitals are going bust. What are you going to do if...?" The hospital went bust, by the way, afterwards, but even though I told them like, "I don't know if that's how it always works. At some point, people get annoyed." That was my theory at the time like, "At some point, people get annoyed. We have to generate a profit," but I think it's their entrepreneurship, I've gone back and forth [inaudible 01:07:02].

On one hand, you say, 'Maybe everybody's an entrepreneur." The reason I say that is if you go to third world countries, which they're probably wrong to call them that anymore, but if you go to old school countries, in the cities there's markets, and many people do... They're not even called 1099 gigs. They're just transactions that you do daily. You do running for five different guys and whatever.

It's a kind of Snow Crash world if you think about it. This idea of a gig economy has actually existed before. The gig economy was around in cities for a long, long, long period of time. This stabilization by industrial manufacturing, this kind of thing, 9:00

to 5:00, that's actually the artificial thing that we created afterwards. So, this thing I think is going to come back in the US and I would say to most people, in terms of this entrepreneur thing, is like, "If you're not somebody who thinks you definitely are an entrepreneur, you might want to recheck your assumptions." Because when the rules change in the game where you don't need to put up a ton of capital, and you don't actually have to do what you did in the past (risk your entire life and career), you could create a digital business today as a side gig pretty reasonably, and you don't have to be some hardcore cutthroat entrepreneur. You can build something and if you lose, you have nothing to lose. So, for me, it was pretty simple.

And then, the other thing I do is I just ask people, "What are the crappiest things about the staff here?" And whatever they do, I rank them and I had like, "These are the crappiest things. This is all I'm going to do." And then I just keep on working, whittling away at each standard deviation or what's the crappiest thing? Let's get rid of the crappiest thing." I focus on reviews. Doctors don't give a crap about their patient reviews generally, at all. Nobody... Now, it's changing. But in general, nobody cares. If you're a doctor, that's been in the Upper East Side in Fifth Avenue for whatever, 35/40, years in a townhouse charging me, you don't care if you're getting 1.8 star reviews. Nobody cares. They're coming to you anyway if you have a name, you have a reputation, you're in the right address, right zip code.

So my attitude was like, "Oh, that's all going to change. People are going to get the internet. People are tired of this crap and they're going to start shopping. And when they start shopping, tell the team we're going to be number one. And what is the goal? The goal is to make people not want to jump out of a window every time they deal with a medical office." That is it. Just make them smile on the way in and smile on the way out and we will be successful. Amazingly, it worked, which is very weird because most of the time when you have an idea that makes sense it doesn't work, but that worked. Amazing that one worked. Amazing.

Max: 01:09:33 One day, when we go back to normal, we started having dinners in New York again, then maybe we should. Listen, I would definitely do anything with you guys. You guys are incredible. You're so good at getting good information to people and still being funny. Very hard to get both of those. Jamie's articles are fucking incredible. In my mind, you guys were the Rushmore, by the way. You know the movie Rushmore?

Jim: 01:09:52 Thank you.

Max:	01:09:52	Because you got these multiple generations working together [inaudible 01:09:55]. But yeah, [crosstalk 01:09:56]-
Jamie:	01:09:55	You're far too kind.
Max:	01:09:56	What's that Jamie?
Jamie:	01:09:58	I said you're far too kind.
Jim:	01:10:00	Yes, indeed. But Max, before we go, we always ask at the end... and I can't wait to hear yours... so, we're making you the emperor for a day. You can't kill anybody. You can't round up anybody and put them in a detention camp. But you can, like Harry Potter... I loved your multiples of magic. You can sprinkle some magic star dust and everybody, let's just say, in society is like, "Oh. Wow! That thing Max just said, I want to do that." You get to do two things. You get to make two things change. What you got for me?
Max:	01:10:48	The first thing I would tell people to do is just, look, anything you have around you, just try to trace its origin; not just the origin from how you got it today,... you're never going to find the answer by the way... but you just try to figure out. Okay, your cell phones made out of XYZ. Cell phone's a bad one to start with, by the way. You want to start with something simple: piece of paper. Try to track that whole process, including the rubber and the tires needed to transport the truck made out of XYZ that went from this place that were made out of... It's a circle of self-reference probably. You'll never get to the bottom of it. And once you start looking at the world around you like that, like all these people put stuff together in it, then you're going to start maybe caring about people the way most people care about thoughts. Like we'll start treating each other like the way that we treat dogs, which is with kindness and love no matter what they do. So that's one thing I would do just to get people away from this kind of thing that you don't realize how much has been given to you, and because it's a practical thing. You don't have to think philosophically. It's a very basic thing. You can Google it. Just look up how cellphone signal gets to your cellphone. It's much more amazing than people realize and it's sophisticated and, at the base of it, it's not magic. There's actually people that figure this out. It makes sense. The second thing I would do is not maybe what I would give to people, but maybe a practical thing because of how much the US government thinks of [inaudible 01:12:03], and how much

we've talked about this. I would like to see governments get secretary of digital. They have secretary of interior; They all these other things, but the digital landscape is obviously the future. This has the new America. This is the new land mass; we're all going to go here, so I would encourage people if we can to start a movement.

It's not about telling the government what to do. It's about making digital a really, really important part of the conversation and aim for transition that by 2040 or 2050, the secretary of digital will be sit on top of everything, and everything else will just be a subsidiary to it. That's probably what's going to happen. Information's going to rule the atoms and the matter, so that would be the thing is... And as part of that, I would add a side thing is put the laws and stuff, let's start putting this stuff on the internet. Let's start open sourcing it. Let's start making it so you can comment on it, and let's start using the beehive that we all have to start cracking the legal code and start the meeting because laws are only additive by nature. Let's start deleting and edit those things and try to think about it as a Greek Democracy 2.0 project maybe. I think that would maybe get us off to a little bit of a better [inaudible 01:13:05]. I don't like blaming politicians. It's a very difficult job. We all need to get involved. That's it.

Jim: 01:13:11 I love that. I love both. I used to use that as an example. I would ask people in interviews, "Tell me how this pencil got built," and they would just freeze. Right?

Max: 01:13:11 Right.

Jim: 01:13:26 "Well, they..." Pah, pah. "Okay, what about the led? Where'd they get that?"

Max: 01:13:31 Right, exactly. It's wonderful if you think about it. It's crazy, right?

Jim: 01:13:35 It is. It's neat.

Max: 01:13:35 You take all that for granted and you don't even appreciate it at all.

Jim: 01:13:38 Well, it's something that... I love rabbit holes and I do that all the time and it is so cool when you see what goes in to making a number two pencil.

Max: 01:13:53 That's right.

Jim:	01:13:55	It's kind of like, "How can you not understand the open sourcing?" as you call it. I'm all in favor of that.
Max:	01:14:04	Absolutely.
Jim:	01:14:05	Right?
Max:	01:14:06	[crosstalk 01:14:06].
Jim:	01:14:05	Because you've got the agents and they're going to figure it out. Anyway, so I love that one. I love the secretary of digital because I agree with you. I think that people are stuck in the 19th century, man, and that's where a lot of our problems stem from. We're not living in the 19th century anymore and-
Max:	01:14:28	Jim, Jamie is.
Jim:	01:14:31	No, Jamie's in the 17th century.
Jamie:	01:14:34	I was going to say [crosstalk 01:14:34] I'm a latecomer.
Max:	01:14:38	I got to get caught up.
Jim:	01:14:38	Listen-
Max:	01:14:39	[Crosstalk 01:14:39] too loud every time Jamie releases something, I just love it because I love that contrast. The contrast of his age, the youthful look on his avatar, combined with, "Hey, here's something about the 1600." I just love-
Jim:	01:14:46	Yeah well, so the joke is that I am the youngest old guy and he is the oldest young guy.
Max:	01:14:54	I told you, you guys are a perfect duo. If there's ever a movie made about information, you guys have to do in that movie, especially if Roy Petersen directs it.
Jim:	01:15:03	All right. This has been fantastic, Max.
Max:	01:15:05	Yes, great.
Jim:	01:15:05	Thank you so much.
Max:	01:15:06	Thank you too, guys.