**Responsibility in the Age of AI: A framework of understanding**

*World Goodwill Seminar, New York
November 11, 2023*

Sedarius Tekara Perrotta

All right. So, first of all, I just wanted to say the other presentations today were just fantastic, and I gained a lot of inspiration from them. So hopefully I could bring that inspiration, to the next minutes where I'll be sharing this with you. Oh, sorry. I need to do slideshow. Okay, there we go. And, this was all created by AI, of course. That is an expected outcome here.

So, Michael, already gave you the background. I just wanted to say one thing. I want to say that I'm a practitioner, and that means I've made a lot of mistakes and banged my head a lot. And usually, I'm the one on the opposite side of the coin of what I'm going to talk about today, which is the positive aspect of this work.

And the baseline I have is actually the same as what Andrew said, is that the responsibility really lies on us. But I'll build towards that and hopefully give a framework of understanding why I came to that conclusion and why I'm not going to talk about the opposite side of the coin today. The key topics that we are going to talk about are a larger momentum of force that has been in motion for thousands of years, to try to understand the context of where we are today, so we can pull ourselves out of the microcosm and look at the macro, convergence of technologies, acceleration, and change, and what can we do?

So pretty general generic. Hopefully that's not what you get out of this presentation. All right. So, here's my big perspective on this. It is very easy, uh, as Andrew made clear. It's very easy to get lost in the news. It's very easy to take things, well, the news takes things out of context. So, it's very easy to follow the news in the way they take things out of context. But my perspective is to call AI “it or the other” is an extremely dangerous practice and it’s something that we need to collectively work ourselves out of doing, because it makes it the other, it makes it something that's alien, it makes it something to be afraid of. And in reality, as someone who's built these models, who's failed many, many times, meaning that I actually made it work a couple of times as well. It's us. We create the models, it's humanity that creates the models, it's people in the engine room that are creating the models. It isn't something outside of us and it doesn't control the world. So, it just does things in a different way that can be scary. So anyway, I just wanted to say that because this has been going on a very, very long time, I'd say at least 10, 000 years. And, with, with the advent of writing, which is the first really extension of our thinking capabilities, the aid of the mind, first aid of the mind, just computerization was writing and, this was the very beginning of the augmentation of our abilities to think, create, build, communicate, and manifest collectively.

So hopefully that stretches the timelines a little bit. I'm gonna talk about five macro trends again, each and every one of these builds on the other, and they are all driven by us. We do these things. People make these decisions. And we also are the ones, as Lisa shared, that that need to hold other people accountable for these things.

So, I'm going to go over these 5 macro trends. I'm not going to necessarily… I will couch it in AI from now on and again by mistake. But the major point I want to make is, is these are five forces that are in motion that are accelerating and at this point, they are beyond any single human’s control because they're very decentralized. So, we had computers 5,000 years ago. Actually, it started with the Abacus. So, 5000-year-old invention. That has obviously accelerated very quickly over the last several decades. And the thing I want to hyper focus on because it's very relevant to the conversations on AI right now, and that is the microchip.

Because it's the foundational building block in which all devices, data, and AI is built. And to understand the microchip, then you get to understand the value of the cloud and what it does. Because you're taking something physical and now, you're essentially, it's still physical it's not this mysterious cloud. Again, a funny analogy that they say that it's just physical in somebody else's garage instead of yours. So, a big company buys a whole bunch of computers. And that, you get to borrow from them at any point in time, and something that you would have to go to the store and buy this computer and buy these wires and do this and do that and get this software and spin up this instance and that instance and expand your storage. All that you can be all that can be done instantaneously since it's in somebody else's environment, and you can just pay for it. But that's very, very important because it's an accelerator. And things that took tens of thousands of dollars and weeks, can be done in hours and really less than 1,000. I put 1,000 to be non-controversial here.

And one of the major forces, a lot of the things that the gen AI algorithms are doing now, I think are really…it is a timing thing. It is a result of a confluence of these forces and that compute cost getting so low that it was affordable that you could deploy a technology that is the fastest adopted technology in mankind because you weren't going to go out of business by getting 200-300 million users on it. So, this is a very powerful force. And this has led to the acceleration of mobile. Mobile and connected devices, including the Fitbit and anything else that you may have on you, is very important because all these devices every day, all day, are generating data. And a ton of data. And obviously, the more there are, the more countries they're in, the more new things are able to be discovered in the patterns and recognition of connection points within the data. So, that's essentially where we get to today, because you have these exponentially increasing compute, you have exponentially increasing devices, you have exponentially increasing amounts of data. And now we can process that, we can see patterns, and we can understand that data in new ways. And this is accelerating, and this has led us to what we are calling AI, which is just a bunch of stuff that we've created. I don't want to diminish it, but at the same time, I don't want to demonize it either, cause it's dangerous, it's a dangerous thing to do. Cause it disempowers, it's a disempowering thing to make it “an other, or an it”.

So, let's go on. So, we're still there's an elbow and exponential curve and we're like right here. I just want to make that clear that these forces that have been in motion for quite a long time, have been accelerating and creating a new age. It's very clear that this is a new age that we're entering and we're still in the very early innings of this new age. Maybe the early minutes of the game because all of this stuff is still accelerating. And I had, when I gave a presentation, earlier this week, I had some scary slides. So, I took those out now because I didn't mean to freak people out, but it looked like I did.

So again, I'll go into what the AI revolution means to me and why 2023 was a breakthrough year. Mostly it was because of the scale at that cost that I just shared. It was affordable. There was the Gen AI breakthrough, but the Gen AI breakthrough is, it was affordable to have 175 billion parameters that became 300, which became 2 trillion, which keeps expanding 'cause of that cost.

And then because of that, because it was affordable, first of all, with those other trends behind it, with those other forces behind it, and if those other forces collapsed, then the piece on top that force on top would also collapse. So, I just want to make it clear that these are very interrelated, and they cannot exist without one another. If you don't have data anymore, you don't have the AI models are not going to be as effective. You don't have a whole bunch of devices constantly observing and feeding information back, you don't have the compute chip being cheap. All these things are completely and totally intertwined.

And this is the thing that was really big, which I think has freaked out the media, is this type of report from McKinsey, which essentially pulls the time back. All these prognostications happened about five years ago, when AI was going to start taking human qualities, human cognitive skills, and they've been pushed back by 40, 50 years this year because of what happened with Gen AI. And yeah, that that is definitely a good reason to take notice, obviously.

And then the other thing is clearly again talking about the elbow and the curve 3. There's only 200 billion has been invested, 3 trillion dollars are going to be invested in the next 6 years. I mean, that is, it's an unfathomable number, and it's the fastest growing industry in the history of our species. So, yeah, a lot more is going to start accelerating. And I think, again, using those techniques that Andrew shared of being able to sift and sort through the news and find the truth and find the things that have the highest lever is a superpower in this day and age, because really, to know which things to use and to know which tools to master is, I think, a key aspect of being able to do your job in this new age that we're in.

All right, this was a quote from Steve Jobs that I've updated. So, “if a computer is a bicycle for our minds, then AI is equivalent of a supersonic jet”. Because of all the things that it can do.

And now I'm going to kind of do a lightning round tour of a whole bunch of other technology and how these things are converging and how they are, it's a new prism in order to see our lives now, in order to see our lives in the future. And again, I'm going to very much cover the positive aspects of these things.

Here are the five forces and here's the fields that I'm going to cover. Obviously, this could have been eight. This could have been 12. There's not a lot of time. I picked five that I think are particularly top of mind for myself. But again, I'm biased in my own ways. So, I've probably left things out. And, um, that is noted.

All right. So, first is the internet of things. This is the one that's most prevalent in mainstream consciousness. It's the most mature in a lot of ways because it's those mobile devices. That's the, this part of the 70 billion that are soon to be online. The area, the thing that I wanted to focus on here is how these change, with all of the things happening, because they're going to start being able to intercommunicate and share data and create pictures of things that we didn't have before and all sorts of things like our clothing, our sneakers, obviously our glasses, um, our, our homes, they're all going to start to become virtualized. Because the data that would support that is so cheap, and the value, the monetary value of providing that insight is so high. So, there's going to be a lot of things that are going to be, new ways of looking at the world, that are going to start emerging from all these wearables. The intelligent homes and of course, the intelligent medical devices, which I'll get into in a bit.

Personally, this is one of the things I'm most excited about because I had a passion for environmentalism when I was in the U. S. Peace Corps a long time ago, and this has truly transformational capabilities. There are four key technologies I want to articulate here. One is the 3D printing, material science, generative design, and 4D printing. And what it essentially just means is that every community can become a manufacturing hub of its own supplies. So that means, and this is some crazy stuff. So, I can send links to reference this. I'm not making this up what I'm about to say. You'll be able to print your food, you'll be able to print your clothes, you'll be able to print your home or replacing parts of your home. You'll be able to print your equipment, vehicles, and all of these things are coming together to enable, it's really a new production model. That's very, very exciting because it's much more sustainable. I'll just give a quick picture of that. Here's what the industrial air production process looks like. You're getting all your materials from all over the world. They're going into some kind of production facility. They're getting, individually like iron and cotton go into their own facility, then they get centralized in another facility, and then they go to a distribution center, and then they go to retail, consumer, and that's all costing tons of resources. This is what it looks like if you want to put a little chart, graph. Extremely inefficient, extremely bad for the environment, extremely bad for global warming. But here's the potential of this decentralized fabrication, is that these hubs, these areas, these localities can say, eliminate all the need for other. All that transportation. I mean, even coffee grinds can become shoes. Disposable, organic waste can become food. What are some of the other ones that are really cool? Stones, little, tiny pebbles you could print into blocks that turn into houses. It's really incredible.

Next one is robotics. This usually scares people. I'm going to tell a different story. And those look scary, and Elon Musk is a funny guy, he made these so scary looking. But these are the Optimus robots from Tesla. I think there's 10 million of them in production, and they're essentially domestic help. That's what they're designed to do. I don't know if they're going to come on the market next year or the year after. Clearly, there is a lot of investment in them, and they're essentially going to do your laundry, mow your lawn, clean your dishes, and do a whole bunch of other, cook food if you want. And, and they'll do a whole bunch of other domestic work. What's interesting here though, is that's the very first iteration of it, eventually skills that take 12 years, 16 years, like a doctor, a surgeon, eventually, these things are going to be accessible by this type of technology and it will make things that are cost prohibitive and impossible to have access to for especially developing world countries, it's going to enable that to happen at scale. That surgery is going to be able to happen at scale. And obviously you could use that other slide with a 3D printing for the materials for the surgery and have a local little force of robots, which are only about USD 30,000 I believe today, and you, you will be able to have a different level of health care. And that's only one example.

This is the stuff that I have deployed personally within our company. And I've seen its capabilities. I've seen what it's been able to do. It’s been very inspiring. This in this movement, in a lot of ways, at first is very scary because you can see the dark side. It's very easy to see it. It's not hard at all to imagine the risks. But when you start harnessing the positive aspects of it, it's really incredible. We've done, I've essentially empowered our entire organization. We have trainings every week on different AI solutions and different kind of augmentations of different work roles. And we have people doing higher quality work, better work and enjoying it. The artists who produced all of these images on mid journey. She's like delighted. She's a creative and she is absolutely delighted. I've, she's never been more fulfilled in her job before. And obviously the developers are super people at this moment because they're able to produce more code. And I want to just address that code thing really quick. Everyone's going to be able to code. I believe by next year, even if not now with a little setup and a little help from a tech or an engineering person, you probably could start coding right now. But by next year, the access of having a prompt that will write computer code that you could then deploy without having to know programming language is very, very close on the horizon.

And that kind of goes also into the AI assistance. This was released on Monday with open AI and the GPT for turbo. It's called the AI assistance, but that's the very first version of these autonomous agents, but in the next year, by this time next year, they're going to start being able to create websites, software, marketing materials, videos, commercials, movies, without any human intervention, just with the prompt, the same prompt that you're using, the same thing that you're just asking questions and having it do plagiarism, you can have it actually write a program for a new product that you have for peace, let's say, encouraging, better relations. You have this idea for some software, using all the principles that Lisa shared, you want to create it. You can have it create it. You could say, give it feedback and “oh, I don't like this, change this, change that”. You can have it create a website for you. You can have it create the marketing message for you. Obviously as you, as the director, you'd have to be a director. It's still, it's an augmentation. It's not a replacement. And this is very exciting because we're using this at scale right now. It's you know, like I said, the very early of the early parts of the elbow, but we've already seen maybe 25-33 percent productivity gains and happiness gains really inside of our orgs because people are not doing the things that they don't want to do. They're accelerating and doing more of the things that they're good at.

Now we're going to get into the world of the weird and the wild. It would be irresponsible of me not to share the next 2 slides. So, these are BMI, they also have quite negative publicity online, quite scary, a chip in your brain and all these stuff. But, if you understand again, the 5 key forces driving this, and you understand that it's just data. Your brain is emitting an electrical…it's an electrical engine, and its emitting frequencies, and as it creates electrical patterns, this is data. And these are things that can get translated. And these are things that, um, thousands at this point, thousands of neuroscientists and innovators are actively working on. And again, this is behind labs. It has very negative publicity at this point, which of course it would. But the promise of it is incredible. I've read white papers on very strong belief from reputable people like Peter Diamantis saying that the belief that Parkinson's, Alzheimer's, dementia will be permanently cured in our lifetime. That's exciting.

And then obviously there's the augmented brain capabilities of being able to have more of your own memory and being able to have more insight into how your brain thinks and how to better activate the areas of your brain that are strong and how to, let's say fortify the areas of your brain that aren't not as strong. So, it is a, it's a universal improvement as a potential to universally improve our mental function. Our mentality.

And then this is the one probably, uh, I don't think this gets it's funny. I had to reflect on it. Why does this not get any press because they're all in trials and it's all in labs and it's not mainstream at all. And I was thinking even that this the stem cell, the really interesting stem cell work. It hasn't passed FDA approval yet. People have to go to Costa Rica and places like that in order to get the treatment, but it is quite magnificent what happened with the help of data and AI in breaking the genome. All of this stuff is coming online now. I mean, the ability to edit your own genes, your ability to print areas of your own biology that are not functioning properly, removing the need for people to die or people to have to sacrifice some part of the body to enable someone else to live. And then obviously the most cutting-edge stuff is, is gene regeneration, which is very interesting. I talk a lot about that. And there's a book by Tony Robbins and Pierre Diamantis called Life Force. They go into that a lot, they set up a foundation, a medical facility called Fountain Life, actively working on this stuff. I'm a member of it. The resources are incredible. They do 3D prints of my brain, 3D prints of every single one of my organs, able to tell me things at the microscopic level that no test in mankind could have possibly told me before. And they brought this concept of longevity escape velocity, which I won't go into, but essentially means people are going to live longer and live better at scale. And a lot of a lot of people on the edge of the medical profession believe this is a foregone conclusion at this point with all the breakthroughs that we've had.

So, what does this all mean? Why did I share all this stuff with everyone today? Because I'm supposed to be talking about responsibility. I was inspired to make some changes to this deck because I believe the responsibility as I shared in the very beginning lies on us. Because this is an opportunity as I've shared, and our own augmentation. So, we have a program inside our organization called augmented shelf, which is the augmentation of all of us through sharing through hiding our collective understanding together. And I think this is something that anyone can take advantage of. And essentially going back to that very old chart going through the tens of thousands of years of history that got us here, this is just an acceleration of something that started, which is the augmentation of our ability to think, create, build, communicate and manifest. And it enables us to do more faster, learn more in a better way, augment our creative abilities, not replace them, build faster with less resources.

People who don't know how to code can now write a software program. People don't know how HTML can now put up a website. Communicate more broadly and effectively. And then the most important thing, and what I wanted to share with everyone here today, this is an amplification of your life purpose, if you allow it to be. Certainly, this is going to be the amplification of people, of people's life purpose in the tech community, which there was some commentary in the earlier talks, their life purpose being amplified may not be the ones that we want amplified, but they're going to do that, because they understand the things that I'm sharing with you today. And I just wanted to share this because I have this knowledge and I understand it. And I think that the people on this call today are exactly the people in the world that need to know these things, that they're exactly the people that need to be amplifying their ability to achieve and to augment their own lives.

So, the opportunities ahead, not the dark stuff, not the, the Byzantine general dilemma and all that stuff, the good opportunities, because I also believe collectively if we work together, and we do amplify our life force that we collectively are creating the reality that we intend to create. And that if we're putting that positive intention and building those positive projects and programs and informing and getting people to follow these intentions, and augmenting that life force, then we will generate the positive outcome. And that's how it's going to be done in my opinion.

I didn't talk about universal education at the highest level and having Socrates or Plato being your, your personal tutor. I did talk about longevity, escape, velocity, acceleration of human evolution, kind of touched on it. Didn't talk about it. And, I think funny enough, I have a lot of things that cross over with what Andrew said earlier. So, I'm really grateful for the talks today. Learn as much as you can, embrace and adapt. Don't fight. Use technology because I can promise you, others will be doing it. Other people, who may not have the conscious and moral compass that you all have. And this enables a reimagination of your work and a creative expansion of what it can be and enables us to actively create the future that we want to live in together.

Thank you.