AAIG 2021 SUMMIT WEBINAR 4 TRANSCRIPT – DR. JAMIE METZL

Thank you so much. It's really my tremendous pleasure to be here with all of you, kinda here, virtually here. Philippines is a country that's very dear to my heart. And the topic that we're discussing here today, the transformation of education is absolutely at the very, very core of building a safer and better future for everyone. As what's just mentioned, I'm the founder and chair of One Shared World. We are a global movement of people all around the world, and Dean Henry Tenedero and the amazing friends in our One Shared World Philippine chapter are teaching us things everyday about how we can come together to address not just the many challenges we face which are very clear, but the great opportunities that these amazing transformations in our communications and other technologies afford us. So thank you so much for inviting me to join you, and inviting me to join you to talk about something that's so important as the transformation of education. Because what is education at its core, but the realization of our potential, of our potential as individuals, as communities and as humans. As was mentioned, I'm the author of the book, Hacking Darwin: Genetic Engineering and the Future of Humanity. I'm a member of World Health Organization, expert committee on human genome editing. And there is no doubt that as we unlock the secrets of genetic code, we are learning more and more about how much of our identity is coded in our genetics. And that's certainly is true. But it is also true that our lives are in many ways far more determined by our cultural inheritance than even by our genetic inheritance. Our biology is fundamentally similar to the biology of our ancestors tens or hundreds of thousands of years ago. But our lives are radically and dramatically different not because of our biology but because of our cultural inheritance. And we need to recognize that cultural inheritance is something that is very precious. And the way that we maintain it, the way that we grow it, is generation upon generation building our foundation of knowledge and then doing everything we can, both to pass that knowledge to future generation. And to give those generations the tool that they require and will be able to use to grow the foundation of that education even further. That's why your work is so important. That's why our mission together here is so important. And I want to put this moment in history in some contexts. Just a hundred years ago there were about 2 billion people alive on earth with only a 20% literacy rate. That means about 400 million people have had the opportunity to participate in many ways, in the world of shared knowledge, at least shared beyond our smallest community. Today we're approaching 8 billion people with an 85% literacy rate, that means around 6 and a half billion people have access to the world of shared knowledge. And because we are all networked, it means that nobody has to solve a problem that's already been solved. Our ancestors living in different parts of the world had access to different technologies. Some of the era-defining technologies like a copper, like iron. The difference was thousands of years across civilization. And that meant for thousands of years, people in various parts of the world where solving problems that have already been solved at some other time in some

other place. Today, because we have so many people and because we have network knowledge systems, everybody gets to wake up and solve a problem that has not yet been solved. And our technologies are allowing us to enter an era of super convergence. It's not just that we have this massive computing power, as what's shown in the slide of the previous speaker, it state our computer revolution is unlocking a machine learning, an AI revolution , and that is unleashing a genetics and biotechnology revolution. And with the tools of that revolution we are learning about the designs of nature that are circling back in helping us create new models of computer chips and everything is it goes around and around. So this super convergence of technologies is accelerating the rate of change. And that means that in a world of exponential change when we look to historical experience to understand how quickly things are changing and will change, we are actually too conservative. Our brains give us too conservative information. And so to understand where we're heading, we are all in many ways need to think like futurist, we need to think like science fiction writers. And this moment creates tremendous opportunities; it creates tremendous opportunities to solve problems that have never been solved before. The new MRNA vaccines that more and more people around the world are accessing are our case in point. It took only 48 hours from when the sequence genome of the SARS Covid2 virus was made available to when the formula was sent out, was created through a computer-generated model by Moderna that is exactly the same as the formula of the Moderna MRNA vaccine. It was based on 30 years of work, but again it was based on the super converging technologies that made that possible. And we are going to see those kinds of miraculous changes. And if we have the right values, these technologies have the potential to help everybody, everybody all around the world unlock and unleash our greatest potential because per we as human that is what we have. And it's an incredibly exciting moment to be alive. But it is also an incredibly frightening moment to be alive because these technologies are allowing humans to do harm at scale. We're about to have the Glasgow COP26 [UN Climate Change Conference of the Parties] meetings where we'll going to be discussing the challenges of climate change. And right now it's very clear that humans are driving climate change but humans don't have an answer to the climate change that we are driving. Right now we live in a world where there's a pandemic that has killed depending on what numbers you accept, but according to the economists, 15 million people are dead unnecessarily. And so as you may know it's my belief that there's a very real possibility that this pandemic stems from an accidental lab incident in Wuhan where Chinese scientists, if this is the case, were actually trying to develop vaccines and treatments for exactly this kind of experience that has been unleashed. Across the board we see many examples of human problems going to scale because our reach and power of humans has reached a global level. That is the story of climate change, that's the story of a potentially pandemics particularly in the age of synthetic biology, that's the story of proliferating nuclear weapons. And one of the reasons why I and we created One Shared World is that with these increasing powers we need to recognize that human beings face an existential threat. And

that threat is founded is based on our global collective action problem. This is what i said in the earliest days of the pandemic last year. That if we solve the Covid-19 pandemic but don't solve the broader issue of pandemics, we'll get through this and then we'll have the next pandemic and the next one, and again in the age of synthetic biology, these pandemics have the potential to be far more dangerous and deadly than this one. But if we solve the broad issue of pandemics but don't solve climate change, we will be jumping out of the frying pan and literary into the fire, with ecosystem collapses in our oceans and elsewhere. And even if we should rally and solve climate change, we don't address other global existential issues like proliferating nuclear weapons, what difference does it make if we protect our climate if we end of wiping ourselves out through nuclear war. And the core through-line here is this mismatch between our global collective problems which are a greatest problem and our inability to solve or address that same category of global collective action problems. And that's why we together One Shared World as was mentioned people in 120 countries are coming together to demand that our leaders do a better job of balancing our narrow interests as citizens, as corporation, as countries with our broader interests as humans sharing the same planet. And that brings me back to this issue, the core issue of education because the only way that we are going to solve these problems is with empowered global publics around the world. And the only way those publics can be empowered is if we have highly functioning educational system that give people the tools not just to learn, which is critically important, but to learn, to engage, to be citizens of their countries, to the informed citizens of the world. Because this rate of change is happening so rapidly, the only skill worth learning is how to learn, how to be wise, how to apply our most cherished values to our greatest challenges, how to apply our most sacred values to guide the application of our increasingly god-like technology. And that's why the work that you all are doing is so critically important. Yes we have a genetic future; yes we have all kinds of ways, that we're just spoiling the planet making all kinds of problems that at times seem insurmountable. But our greatest asset is our young people, and their greatest asset is their mind. So I applaud you for the critically important work that you are doing to unlock the greatest power in the universe which is the power of the creativity of young people and all humans. Thank you so much and let me stop there.