

March 9, 2016**Ray Padgett** | raypadgett@shorefire.com**Mark Satlof** | msatlof@shorefire.com

T: 718.522.7171

Intelligence Squared U.S.**Don't trust the promise of artificial intelligence**

For the Motion: Andrew Keen, Jaron Lanier

Against the Motion: Martine Rothblatt, James Hughes

Moderator: John Donovan

AUDIENCE RESULTS**Before the debate:****30% FOR****41% AGAINST****29% UNDECIDED****After the debate:****59% FOR****30% AGAINST****11% UNDECIDED**

Start Time: (19:01:23)

Asha Curran:

Good evening, everyone. My name is Asha Curran, and I have the privilege of being the director of the Center for Innovation and Social Impact here at the 92nd Street Y. On behalf of everyone here at 92Y welcome. We are very glad to have you here tonight. Tonight's debate is part of our third annual Seven Days of Genius Festival, which invites leading thinkers to explore all aspects of genius, how we define it, how it emerges across communities and cultures, why it matters, and what the future of genius looks like. You can find out more at 92Y.org/genius. And please go online and share your impressions of tonight's event and all of our Genius Festival using the hashtag #thatsgenius. The festival would not be possible without the generous support from various individuals and organizations, including the John Templeton Foundation. Please join me in thanking them.

[laughter]

19:02:24

Also, a big thank you to our partners at Intelligence Squared U.S. for bringing this amazing event here tonight, and to our four debaters for what I am sure will be an incredible and fascinating look at many implications of artificial intelligence. Now, please join me in welcoming John Donovan, the host and moderator for Intelligence Squared U.S.

[applause]

John Donovan:

Hi, everyone. Thanks so much. It's great to be crossing town tonight to be part of the Genius Festival. I personally have always wanted to speak from this particular stage, so it's an honor. Then, when I saw they had the word "Genius," in the title, I got a little worried that I wasn't going to be allowed onstage. But I slipped in through the back door. For those of you who don't know our program -- and I know actually a lot of you have crossed town with us -- I just want to take a couple of minutes to explain your role as members of audience, because it is not merely to be passive observers. You are active participants in a couple of ways.

19:03:23

The most important way is that at a certain point in the debate, we ask you to register your vote on the motion before us: Don't Trust the Promise of Artificial Intelligence. And the way that we have you vote -- if you look at your seat, there's a keypad attached to it. And when the time comes, I'll ask you to pick it up and use keys 1, 2, 3, to vote for -- that's 1 -- against -- number 2 -- or remain undecided -- position yourself as undecided on the motion, that will be position number 3. Again, a point will come in the debate when I explain to you that that's what we're doing. And it'll be pretty clear.

But when the time comes to vote, the way this particular keypad works is I need you to hold down the key that you choose until you see the number register in the little window. And then you'll know that your vote has registered. Also, in the middle of the debate, I actually will come to you for questions. And I need to make clear that I'm pretty tough about the questions. I need them to be short. I need them to be under 30 seconds.

19:04:24

I will ask you please not to debate with the debaters. Let them debate with each other. But ask a question that gets them to debate with one another better on the motion itself. And again, put it in the form of a question. I'm fine if you want to put a little statement at the beginning. But then, form it as a question. And you'll know it's a question if a question mark naturally fits at the end of whatever you've said, then you've hit the tone correctly. One last thing. We are creating and we always do create a podcast out of these debates. So, you'll get to see the sausage being made. There will be a number of times when I say things like, "We'll be right back." And you'll see that I haven't gone anywhere. I'll still be here. And that's to let you know that we're working for breaks in the podcast. And for the same reason, I'll ask you from time to time to explode into a round of spontaneous applause. I think it'll be obvious, it's when I

introduce the debaters, et cetera. But in case you miss it, I'll give you one of these, and that'll be the gesture to applaud.

19:05:23

The -- we do like the podcast audience to know that you're here because ultimately you're going to be picking the winners. Let them know you're here. It's fine with us to applaud points that you like. We discourage -- very much we discourage booing and hissing. We want to keep it positive, not negative. So, the most negative that we would be comfortable with would be sort of sardonic chuckle or something like that if you don't like a point.

19:06:33

But feel fine -- feel fine to applaud points that you like. We always start these debates by talking a little bit about the relevance. Why we're doing them now. And the way we do that is I invite to the stage the chairman of Intelligence Squared, Bob Rosenkranz. And we have a little bit of a chat. But this time, we have two guests to bring to the stage. So, let's bring them to the stage, and I'll introduce everybody when we're sitting down.

[applause]

Hi Bob. Hi Gail. So, you can grab a mic. So, I'm joined by Bob Rosenkranz and also Dr. Gail Saltz, who is an author and a psychiatrist. And she is the chair of the 92nd Street Seven Days of Genius Festival. Gail, thanks so much for joining us on this one. And Bob, it's a pleasure to be here, as I just said, with 92nd Street Y. And talking, in terms of relevance, we have a little bit of news on our topic today.

19:07:26

Robert Rosenkranz:

Well, we do indeed. Where the Google-created program beat the world champion at the game of Go. And I think it's fascinating, from an AI perspective, because the program actually learned the game just by observing hundreds of thousands of professional games. And this is a very different and much more advanced way of learning than, let's say, the chess program that 20 years ago was able to beat champions. But -- where it was basically following algorithms that had been generated by expert human players.

John Donovan:

Well, I want to come back to you in just a second. Let's talk a little bit about your personal experience with AI. But Gail, I also want to bring you into the conversation to

talk about this festival and what we mean by "Genius," and what we mean by "Seven Days of Genius."

19:08:23

Gail Saltz:

Right. Well, first of all, for those who don't know, the 92nd Street Y is a cultural center and a community center. And the mission is to really look at big ideas. One of them is genius. So, the Seven Days of Genius -- this is the third year. And it's been to explore the idea of genius, which doesn't mean the same thing to everyone.

John Donovan:

[affirmative]

Gail Saltz:

Of course we think of extraordinary -- the ability. We think of extraordinary ideas that change humanity. But in this case, this year, we're looking at the way genius ideas can impact world challenges for social good. So, we're here in New York all this week with amazing programming. We're in 50 communities around the world this year.

John Donovan:

Wow. Wow.

Gail Saltz:

Issues like inequality, food shortage, sustainability. So, this is different this year. And tonight, we're looking at artificial intelligence. And in that same vein, the question of -- is it for social good or does it imperil social good?

19:09:23

John Donovan:

And that's where I want to bring it back to Bob, because, as an investor, you've dabbled a bit in the artificial intelligence realm. What was your experience?

Robert Rosenkranz:

Well, it was interesting. And I think it illuminates maybe a couple of aspects of tonight's debate. So, I funded for a period of about four or five years a group of computer scientists who were trying to do something that people have not been very successful in doing, which is outperforming the stock market. And the ultimate result -- and it used all of the techniques of statistical analysis, of correlation, of machine learning. This was a very advanced effort. And we ultimately got to the point where we could do maybe 50 or 75 basis points, or hundredths of one percent -- better than the averages, which will put us maybe in the top 10 or 15 percent of professional money management organizations.

19:10:25

It wasn't enough of an advantage to build a real business around. But the interesting thing is that I had six people who were basically outperforming teams that typically would have hundreds --

John Donovan:
[affirmative]

Robert Rosenkranz:
-- of analysts, of traders, or portfolio managers. And that can -- I mean, I -- to me, it shows both the difficulty of achieving a result with artificial intelligence, particularly the result that humans are not very good at.

John Donovan:
[affirmative]

Robert Rosenkranz:
And secondly, the potential for job loss, because the kinds of jobs that we would be displacing are jobs held by people who were business school graduates, and highly educated, and very cognitive, and very hardworking. And you know, it can all be replaced by a handful of guys running a computer.

John Donovan:
And it's the depth of these questions, Gail, that exactly sound like what you think this festival, and this particular debate, should be about.

19:11:22

Gail Saltz:
I think this year -- I mean, this is the important thing. Many genius ideas can be a double-edged sword. And you have to look at implementing them within the context of our real world and look at both the ups and downs, and I'm excited tonight to hear this debate and --

John Donovan:
All right.

Gail Saltz:
-- in the light of that.

John Donovan:

It's the double-edged sword and we have two edges coming out to the stage, two teams on both sides. So, let's thank you, Gail, you Bob, and let's bring our debaters to the stage. Let's welcome them.

[applause]

Okay. So, that was one kind of start, and now we're going to do the start for the podcast, which will once again begin with your voices through your applause to get us all launched.

19:12:27

So if you could give another round of applause. Thank you.

[applause]

Let's talk for a moment about how Hollywood sees robots, has machines operating autonomously using artificial intelligence, also known as AI, and in the movies these AI running machines are usually human like, usually also either very good like R2D2 in Star Wars or very, very evil like Schwarzenegger in The Terminator, and you might say that that is a false dichotomy, that it's a Hollywood thing, but in fact, the potential for artificial intelligence, to make the world either a very much better or a very much worse place for people is at the center of some pretty furious discussions taking place in places like Silicon Valley where companies like Google and Facebook and Apple are investing massively in AI technology these days, such that the technology is bound to continue to touch our lives, even more than it is already.

19:13:29

And the question is: Is that a good thing or is it a bad thing? Is it even a real thing? All of which makes the sounds -- sounds like the makings for a debate, so let's have it. Yes or no to this motion: Don't Trust the Promise of Artificial Intelligence, a debate from Intelligence Squared U.S. I'm John Donvan. We are at the 92nd Street Y as part of their Seven Days of Genius Festival with four superbly qualified debaters who will argue for and against the motion: Don't Trust the Promise of Artificial Intelligence. As always, our debate will go in three rounds and then our audience will vote to choose the winner and only one side will win. And we want to have your preliminary vote on this motion right now. So let's go to the keypads at your seats. Take a look again at this motion and be careful because it's got a negative in it. The motion is Don't Trust the Promise of Artificial Intelligence.

19:14:24

If you agree with the Don't Trust, push number one. If you disagree, don't Don't or Trust, push number two, and if you're undecided push number three. Hold down that key until you see the number register in the little window and then you can release. That will be your vote locked in. The other keys are not live, and we'll give this about 15 seconds and then we'll lock it out. Okay. It looks like everybody is good. I just want to check off stage, are we good to move on? We're good. Okay. So we're going to move on, but here's what I want to explain. The way that we decide the winner in our Intelligence Squared debate is by the difference between two votes, the votes that you just made, and then again at the end of the debate, after you've heard all of the arguments, we have you vote a second time and it's the difference between the two votes in percentage point terms that will determine our winner.

19:15:33

So you are picking the winner and you're picking the winner with your second vote, and I want to be clear. It's the difference between the first and second vote that will declare our winner. So, our motion is this: Don't Trust the Promise of Artificial Intelligence. Let's meet the team first arguing for the motion. Ladies and gentlemen, welcome Andrew Keen.

[applause]

So, Andrew Keen, you are an internet entrepreneur. You're currently executive director of the FutureCast salon. You're host of the internet chat show, "Keen On." You're author of the book, "The Internet is Not the Answer." Your second time debating with us. The first time the motion was Smart Technology is Making Us Dumb. You argued for the motion. The debate ended in a tie, the first and only time we've had that happen in more than 100 debates.

19:16:23

So, is smart tech still making us dumb and do you expect a better outcome than a tie tonight?

Andrew Keen:

Well, I certainly expect a better outcome, because our voters are humans rather than machines. So I'm trusting you to do a good job tonight, all of you out there.

John Donvan:

All right, an appeal to the home crowd team here. Ladies and gentlemen, Andrew Keen.

[applause]

And, Andrew, please tell us who is your partner in this debate?

Andrew Keen:

My partner is the great philosopher and poet of Silicon Valley, Jaron Lanier.

John Donovan:

Ladies and gentlemen, Jaron Lanier.

[applause]

Jaron, you are also arguing for the motion, "Don't Trust the Promise of Artificial Intelligence." You are a former goat herder and midwife, an accomplished musician, and artist, a computer scientist, the father of virtual reality, and an interdisciplinary scientist at Microsoft Research.

19:17:22

You are author of the book, "You Are not a Gadget." You are often described as a pessimist when it comes to our digital future. Is that fair?

Jaron Lanier:

No, it's absolutely unfair and I would never describe myself as a pessimist. A pessimist is somebody who believes things are worth improving and attempts to do so. The -- it's the Panglossian optimist is the lazy bum who's just like, "Oh, it's all great." And I am not that person.

John Donovan:

All right, well we'll get to know you better as the evening goes on.

[laughter]

Ladies and gentlemen, the team arguing for the motion.

[applause]

And we have two debaters arguing against the motion, "Don't Trust the Promise of Artificial Intelligence." That means they are arguing, "Trust it." First, please let's welcome James Hughes.

[applause]

James, you are a sociologist, a bioethicist, a former Buddhist monk. You are the executive director of the Institute for Ethics and Emerging Technologies, author of,

"Citizen Cyborg: Why Democratic Societies must Respond to the Redesigned Human of the Future."

19:18:28

You are also a proponent of something called democratic transhumanism which means what?

James Hughes:

Transhumanism is the belief that our descendants will be strange and wonderful, that humanity is a work in progress, that we can use technology to be smarter and happier and live longer and healthier.

John Donovan:

You're the optimist?

James Hughes:

And I'm the optimist, yes.

John Donovan:

Okay, and so please tell us who your partner is.

James Hughes:

My partner is the renaissance woman, Martine Rothblatt.

Martine Rothblatt:

Thank you.

John Donovan:

Ladies and gentlemen, Martine Rothblatt.

[applause]

Martine also arguing against the motion, "Don't Trust--" that means trust, "The Promise of Artificial Intelligence." You're author of the book, "Virtually Human: The Promise and the Peril of Digital Immortality." You launched the GPS navigation system GeoStar in the '80s. You founded Sirius Satellite Radio. You have founded a biotechnology company.

19:19:22

You founded a religion. And then in 2010, you commissioned a robotic clone of your wife called Bina48. You have had a pretty good track record for success. But will Bina48 therefore someday be a fully conscious being?

Martine Rothblatt:

So I think she will be someday a fully conscious being. It's not going to be in the business planning cycle or an election cycle. But if you take a look at the time frame of social movements or technology paradigms, 30 years ago as you mentioned, there was no GPS. Today there's GPS in three billion people's hand phones. So I think in a similar time frame we'll go from having like no GPS to lots of GPS. We'll go from no cyber consciousness to there'll be billions of cyber consciousness.

John Donovan:

Okay, sounds like another optimist. Ladies and gentlemen, Martine Rothblatt and the team arguing against the motion.

[applause]

Now, I want to repeat, "This is a debate." It's a contest, a contest of ideas and logic, presentation, a little humor is also allowed, a little bit of charm.

19:20:24

But, ultimately, these debaters are trying to persuade you to vote for their side in the second vote. I want to remind you, once again, you have voted already. You'll be asked to vote again at the end of the debate and it's the team whose numbers have moved the most in percentage point terms between the first and the second vote will be declared our winner. We go in three rounds. Let's move onto round one. The motion is this, "Don't Trust the Promise of Artificial Intelligence." Speaking first for the motion from the lectern, Jaron Lanier. He's a computer scientist, a composer, author of the book, "Who Owns the Future?" Ladies and gentlemen, Jaron Lanier.

[applause]

Jaron Lanier:

Hey. I can't possibly be talking about artificial intelligence right now without remembering Marvin Minsky who is my dear mentor who just passed away very recently.

[applause]

And Marvin was infinitely sweet to me.

19:21:22

And decades ago we would have the same argument, more or less. The spirit was a little different though because back then it seemed a little clearer where the line was between the philosophy and the technology. So Marvin would argue the hard AI position and he was largely the author of a lot of the ideas that I suppose I find myself

arguing against now. Oh, but he loved to argue. And I just remember these arguments with such joy. And I wish that people who have come along since retained that sense of open-mindedness and didn't take it all so seriously. I feel as though the ideas about AI have evolved into something of an orthodoxy, where they started off as an element of good humor and camaraderie. And I regret seeing that. And I wonder if similar progressions happened with some of our great religious and philosophical traditions. It's been interesting to see it. So, from my perspective, as a practitioner, I must add, I -- my friends and I sold the Machine Vision company to Google.

19:22:24

I'm in the thick of it. I'm not anti-AI algorithms. I make them, you know? And I'm fascinated by them. So, from my perspective, there has to be a division made between the work itself -- the engineering and the science on the one hand, and then on the other, the storytelling about it, the narrative that we have about it, the fantasy life of it -- perhaps the religion of it. These are two distinct things. It doesn't mean one is good and one is bad, but they're just different sorts of beasts. So, to say, "What is the promise of an area of research?" We fundamentally don't know. It's research. It's basic research. We just observed gravity waves for the first time. Does that mean we'll suddenly have anti-gravity devices? Well, you know, maybe someday. We have absolutely no clue what we're going to discover. And in the same sense, we currently don't know what a thought is, in terms of scientific description. We can kind of find collections of neurons that seem to active at certain times. It's provocative.

19:23:23

We can replicate certain functions. It's provocative. Do we understand how brains work? No. And yet, the work is fascinating, the work is important. A lot of our existential threats as a species involve great complexity. We wouldn't even know about climate change if it weren't for masses of sensors networked together that would allow us to get a big picture. We would be blind to our perils without it. So, to say that there isn't promise in pursuing science information systems and sensing systems, and algorithms to understand it all, like the -- it would be crazy to argue that. I can't imagine any serious person taking that position. So, the only form of this proposition that I can possibly argue against is this other realm, the fantasy life, the culture. And here, I do find myself not enjoying it. And I'd like to just say a few things about where it fails. And this is rather personal, perhaps, but I will share it with you.

19:24:24

One issue is, as an engineer, if I say, "Oh, I'm making this algorithm into something that's intelligent," or conscious, or whatever -- or cultured, or whatever it is -- from an engineering point of view, I can't define those terms. So, it makes me nuts. I have no baseline. And this is a really crucial, crucial point. A lot of the systems you call smart

systems are kind of derailed from the empirical process. As an example, I frequently review student work. And some people say, "Well, here I've made an intelligent system. For instance I saw a machine that makes beverages." And it had quite fancy software. And it's to choose the beverage for a person. People found it hard to use. And what I'm saying is nobody cares how fancy your algorithm is. The only thing you can measure is how well the machine works, in the end. So, if you don't define a baseline that's measurable, you're off in fantasy land. And this -- this might seem like a bit of a wonky point to you, but it's absolutely crucial.

19:25:27

Engineering without clear concrete grounding in reality goes off the rails and does become dangerous. So, for a more important example, if you have some sort of drone that goes around killing the wrong people, whether it did so because of an intelligent algorithm that made the wrong decisions, or just because it's malfunctioning -- who cares? That distinction is not actionable or meaningful. The only thing that matters is whether people can use machines that we design responsibly, with intention. That is the meaningful question. Everything else is fantasy. And so, adding this whole layer about power transcending and everything, it's -- it just confuses matters. There is an economic angle to it. I love automatic machine translation. I love that you can go online and get something converted to German automatically. My own lab does that.

19:26:22

We have real-time Skype translation now. But the only way we do it is by scraping the efforts of millions of translators who don't even know what's happening to them to get the examples. And in order to have the fantasy that this thing is a free-standing creature, we're pretending these other people don't exist and we're creating potentially a massive wave of technology-driven unemployment that doesn't need to happen. We shouldn't be shrinking the economy over a fantasy, if we just acknowledge that the people are just contributing in new ways. Their Go games are informing a Go algorithm. Pay those people instead of having to resort to some sort of weird socialist solution. You know, this fantasy of these artificial creatures makes us ignore our own lives, our own contributions. And so, it creates a needless economic peril -- absolutely silly. But then I have to say something else. I understand that for many people, these ideas of AI have become very tender and dear to them.

19:27:26

They've become part of the way they think about their lives, and their loved ones, and their future. They think they might become immortal or something. I have absolutely no interest in ridiculing or opposing that. I absolutely believe in religious freedom, and I would never, never, never speak against somebody's beliefs. I respect them. All I ask

for is the separation of church and state. Without a separation of church and state, there can be no religious freedom. Never more true than when it comes to AI.

John Donovan:

And that's it. Thank you. Jaron Lanier.

[applause]

The motion is Don't Trust the Promise of Artificial Intelligence. And here to make her opening statement against the motion, Martine Rothblatt. She is chairman and CEO of United Therapeutics and author of the book, "Virtually Human." Martine, you can make your way to the lectern. Ladies and gentlemen, please welcome Martine Rothblatt.

[applause]

19:28:23

Martine Rothblatt:

Thank you. It's my pleasure to speak on -- in favor of the motion that we should trust the promise of artificial intelligence. And in thinking about this question, I thought the major theme sort of orbited around three key words. And these words came to me when I asked myself, "Well, what do we mean by the promise of AI?" As Jaron said so well, there are so many different words thrown around. Define your terms. So, to me, the promise of AI revolves around the three terms: replication, and application, and then fascination. So, with regard to replication, the promise of AI is that we will be able to replicate the human mind. And that is a -- you know, a startling statement.

19:29:24

It's a -- kind of an awe-inspiring statement, because, I think, for most of us, for all the beauty and credulousness that we have about life around us, human minds are just like the most awesome things anybody can imagine. So now we're talking about replicating. The promise of AI is that we can replicate the human mind. But I believe that this promise will be fulfilled because we're not talking about replicating the structure of the human brain with the hundreds and billions of different subtle neural connections, of which, as Jaron says, we have slight knowledge. Instead, we're talking about replicating the function of a human mind, much in the way that we're not able to replicate a bird, that we're able to replicate flight. And certainly, the flight that we have with an airplane or helicopter is not the same as the flight of a hummingbird, but it's flight nonetheless.

19:30:22

And the promise of artificial intelligence is not that we will replicate every little nuance of a biologically-human mind, but it will be a replication of human consciousness,

nevertheless. The second term that to me kind of embraces the concept of the promise of artificial intelligence is the term application. So, from replication to application. What do we mean? The promise of AI is that this stuff will be good for things, that we will really have uses for artificial intelligence. Otherwise, why bother developing it? And in fact, lots of people all over the world are enthralled with the promise of AI. We talk about it being helpful in helping to navigate our airspace, our ground space, our traffic. We talk about it being helpful in terms of health care, discovering cures for new diseases -- for -- new cures for diseases.

19:31:23

The application of artificial intelligence that I find most amazing is the application of it to diseases of the mind, specifically diseases such as dementia and Alzheimer's. And if we are able to go ahead and develop artificial intelligence so that it can serve as a kind of mental wheelchair, something that a person that has lost a lot of the faculties of their mind can instead rely upon because it provides a pretty damn good replication of their thoughts, of their responses, of their ability to recognize loved ones and respond to one, the ability to talk and form sentences and have an interior sense of reality. That promise of artificial intelligence, I believe, will come to pass because there's an enormous demand for it. Everybody who thinks about it wants to contribute to it in some part, small or large, depending on their capability and their skills. So I think it's all of the incredible applications of AI that will pull AI forward into the future and realize its potential.

19:32:29

Finally, once we've replicated our minds and once we've been able to develop applications that makes these AIs so useful to us and such an important part of our life, far more than a personal digital assistant, far more than a great educational tool. In fact, it's a mind. It's something that we develop a relationship with. The next thing that comes to me is fascination. We will love these AIs. We'll love them in the same way that we love our cats and our dogs, that we love our friends, ones that we see distantly or the ones that we see frequently, because if it is a replicated human mind it'll have all the cool features of human minds, being able to answer questions, be able to really frame the rest of the sentence before a sentence is finished, be able to feel empathy and when we're sad help us feel better and we're happy join in that joy.

19:33:27

Now part of the fascination of AI is that I believe the fascination part will only attach to the friendly AI, and this is why I believe when people offer a promise of AI as it being friendly and not be kind of the scary AI that you see out of Hollywood, I think that is a reality that we can expect to pass. Our fascination with AI will be for the AI that is friendly to us. We have no fascination with cars that don't stop when you put on your

brake. In fact, we run from them. We have no fascination with stoves that when you turn on the stove they explode. We don't buy those. AI will arise in a natural environment in which humans are the agents of selection. We will select for the friendly AI and we will stamp out the unfriendly AI. So I believe that the promise of AI will be a good one and we should believe it because the environment in which AI evolves will be a human selection environment and the mass activities of hundreds of millions of people will select for the friendliest AI.

19:34:35

This does not mean that there will never be bad AI. This does not mean that there will never be broken applications and that some replicated minds will be as messed up as people who are suffering from something like an antisocial personality disorder, but ultimately it will be the efforts of millions of individual hackers throughout the world in a decentralized process drawn forward by the promise of the positive applications of AI, such as helping to save relatives and loved ones that will result in a beautiful AI that will be the fascination of all of us and therefore will be a definite survivor in the future to come. Thank you.

[applause]

John Donovan:
Thank you, Martine Rothblatt.

[applause]

And a reminder of where we are.

19:35:22

We are halfway through the opening round of this Intelligence Squared U.S. debate. I'm John Donovan. We have four debaters, two teams of two, arguing it out over this motion: Don't Trust the Promise of Artificial Intelligence. You have heard the first two opening statements and now onto the third. Making his way to the lectern, Andrew Keen. He is executive director of FutureCast and author of the book, "The Internet is Not the Answer." He will argue for the motion: Don't Trust the Promise of Artificial Intelligence. Ladies and gentlemen, Andrew Keen.

[applause]

Andrew Keen:
Thank you, John. So this is a big deal. Very, very big deal. You just heard Martine given an extremely good speech in which she talked about replicating the human mind. Nobody laughed. You all sat there. You took that seriously, the notion that we

can replicate our minds, that they'll live forever in the cloud or some other digital space is not outrageous. Jaron might argue it's not practical at this very moment, but it isn't outrageous.

19:36:28

This is a huge issue. The notion that we can replicate ourselves, our intelligence, our being, our identities, our souls, whatever other word you want to use. So this is not a debate irrelevant to the future. Indeed, it is probably the central debate of the 21st century for better or worse. Important to remind ourselves of this debate, we are not talking about trusting artificial intelligence. That is not what Jaron and I are arguing against. We're arguing that we shouldn't trust the promise of artificial intelligence. We're not against the technology in itself. That is not the subject of the debate tonight. Jaron talked about the Separation of Church and State. We talked about this over lunch today.

19:37:23

What I think he means is that we need to separate the science from the belief. And, all too often in this enormously important debate about whether or not we should trust the promise of artificial intelligence, of smart machines that are indeed so smart that they are able to replicate us as a species both collectively and individually, Jaron is arguing that we're muddling them up. Jaron is arguing that there's too much state in the church and too much church in the state. And the philosophers are intervening. The philosophers are telling us that this science is good, is moral, is liberating. And that's, I think, the argument that our team is making, or certainly that I am making. It is that there's a problem not with the technology but with its promise, with the ideology around that technology.

19:38:27

We already heard a little bit about it from Martine who talked about something called "good versus bad" AI. I have no idea who she can make those moral judgments. I have no idea how you moralize I -- AI unless you humanize it, which itself is deeply problematic. But the problem today, I think, is that the philosophers have got hold of this technology and they're presenting it as liberation theology. At least some of them are. We've been through this, of course, before in the middle of the 19th century in the midst of industrial revolution. The philosophers got hold of that. Marx thought the Industrial Revolution would free us from work, would free us from inequality. He was of course entirely wrong. And we have a similar kind of discourse, a similar kind of philosophical debate emerging today about the promise of AI.

19:39:28

We're told that this AI will liberate us from our bodies. That's really what Martine is saying, that we'll live forever, that our minds will be replicated, they'll be up in the cloud. We'll never die. If we go insane, if we get Alzheimer's, somehow our essence, our kernel will remain. We're told that AI will liberate us from work because we'll have these smart machines which will do our labor for us. They'll drive our cars. They'll do our medicine. We'll go to an artificial intelligent agent, an algorithm to be taught. Perhaps one benefit is we'll avoid lawyers, but apart from lawyers, I worry deeply about the impact of AI on the expert professions of the 19th and 20th century.

19:40:23

The very professions that represent the backbone of our economy. The problem with this promise is it's not being thought through. It's being thought through philosophically, idealistically. We're not thinking about it in the context of the real world. We're not thinking about it in the way in which these technologies -- and we've already had a great deal of example of this during the digital revolution, that in spite of all the great promise of the Internet, and I've written extensively about this -- in spite of all its great promise of democracy and egalitarianism and opportunity, it's actually created new elites. The promise of artificial intelligence, these grand philosophical frameworks, they forget about the realities. Jaron already talked about the art -- the AI of language being owned and people of labor being appropriated. Who is going to own these platforms? Will it be Google?

19:41:23

We all love Google, of course, in some ways. And yet, Google is the largest, the most valuable, the most powerful company in the world. Google are the ones who just made the breakthrough when it comes to this artificial agent being able to play Go. Google is pouring billions of dollars into AI, as is Facebook, as is Amazon, as are the other giants of Silicon Valley. Do you trust these guys to benefit mankind? Do you think they care about us? These aren't bad people or bad companies, but they're focused on profit. They're focused on monopoly. They're focused on owning that technology. We haven't thought this stuff through. The promise is scary. The promise is that the technology is moving way faster than we are -- politically, culturally, existentially. We're not ready for this yet.

19:42:22

We're not ready to replicate ourselves, whether it's in 50 or 100 years. We haven't thought it through. We can't imagine the cultural, the social, the economic impact. We haven't thought about AI and the way it will destroy labor, destroy jobs. What are we going to do when we have these machines that do everything for us? How are we going to create value? How are we going to feed and clothe ourselves in a world where all this technology will be owned by increasingly monopolistic companies? So, we can't, at the

moment, trust AI. We can't trust its promise. One day, perhaps. But there are a lot of problems still to be resolved. And for the moment, I would strongly argue that you should not trust the promise of AI. Thank you.

[applause]

John Donovan:

Thank you, Andrew Keen. And that is our motion: Don't Trust the Promise of Artificial Intelligence.

19:43:23

And here to make his opening statement against the motion, James Hughes. He's executive director of the Institute for Ethics and Emerging Technologies and author of the book "Citizen Cyborg." Ladies and gentlemen, James Hughes.

[applause]

James Hughes:

So, it's been very useful. We've narrowed down to, I think, what is an intelligible question, because obviously, Martine and I don't want to defend the most extreme hyperbole in this debate. But there is an ideological question around promise. And it's an ideological question that I would frame as the promise of human intelligence itself. And that is that artificial intelligence is a crystallization, a condensation, a manifestation of human intelligence, an extension of our capacity. And the promise is the same promise that we have been suggesting since the Enlightenment, that human beings, by taking control, by understanding how we think, and understanding the world -- that we can take control of the natural, and political, and social circumstances that determine our affairs and make a better world.

19:44:31

Now, the anarchist philosopher John Zerzan, I think, has the most trenchant critique of this. He thinks we went off the rails when we invented symbolic thought. As soon as we began to have language, we were downloading the contents of our minds onto external storage media and uploading them again through our eyes -- we became cyborgs. That was the beginning of the end of the human project. I would argue that if you share my intuition that it's better to be alive in the 21st century than to have been one of our hunter-gatherer or peasant ancestors, an intuition that it's better not to have a gutful of intestinal worms, better to live to 80, better to have literacy, better to be less likely to be killed in a violent death, less likely to live in a life of slavery and oppression -- there is something about modernity, and this promise of the Enlightenment, that I think we should explore.

19:45:25

And artificial intelligence, I would argue -- I have a slightly different definition that Martine does. I would argue that artificial intelligence has been with us for a while. Artificial intelligence can be reframed as the codification of the way that we do things together. Civilization is a form of artificial intelligence. It's what allows us to build cathedrals, and aqueducts, and banking systems. It's what allowed us to create laws and universities, and standard operating procedures. And today, that crystallization is taking the form of workers figuring out how to make things faster, and better, and smarter. And yes, change in the nature of work and ways that we should discuss. Today, artificial intelligence is applied to our genomes, to our healthcare systems, to trying to figure out how to diagnose and treat disease in ways that yes, no one physician or nurse will ever be able to comprehend, that we will be able to put in the hands of every healthcare provider and in the hands of ourselves.

19:46:22

Those tools which will allow us the empowerment of understanding our own bodies. And this AI today is allowing us to understand the ecosystem, allowing us to understand the myriad of consequences that we are wrought -- that we have wrought on the ecosystem, to mitigate, to predict, and to reverse those trends. It is also armies figuring out who to kill and how to kill the most efficiently. It is also advertisers and totalitarian governments figuring out how to suppress dissent and how to manipulate opinions. It is stockbrokers trying to figure out the best ways to exploit workers and accumulate wealth into the hands of the .1%. So, reason and technology can be applied to all these different ends. And the question of the difference between one end and the other is a value difference. It is a difference that comes out of the values, as I said, of the Enlightenment. If we fight for free and equal societies in the future, the applications of technology -- including artificial intelligence, will be applied in free and equal ways.

19:47:23

But our decisions to be pessimistic about artificial intelligence will have no effect on the application by China or North Korea, or other authoritarian regimes. It is our own embrace in liberal democracy of these powerful tools, making our society as strong and as effective as possible that will determine its future. So, future AI will allow us to understand the complexity of the genome, unlock health and longevity for our children. It will not determine whether there's universal access to health care. That is on us. Future AI will allow us to displace routine labor and make possible abundance and leisure for all. But it will not tax the rich. It will not determine if we create a safety net, and universal basic income so that we can all benefit from that universal abundance. That is on us. Future AI will allow us to make better collective decisions, to understand the consequences of our actions. But it will not determine whether we have a totalitarian government or a democratic one.

19:48:25

That is on us. Focusing on AI as either a panacea or a cause of social ills is a distraction from the political project that will allow us to use AI and all technologies for good versus ill. It's the flip side. Technology itself does not determine these outcomes. We need to focus on creating the political contexts so that these powerful tools, the productive tools that we've been working on for tens of thousands of years, will be applied in the best possible way. So, I urge you to vote against this proposition, the proposition that we not trust the promise of AI, because if you do vote for it, you are voting against the promise of human intelligence itself. Thank you.

[applause]

John Donovan:

Thank you, James Hughes. And that concludes Round 1 of this Intelligence Squared U.S. debate, where our motion is Don't Trust the Promise of Artificial Intelligence.

19:49:23

Now we move on to Round 2. And in Round 2, the debaters address one another in turn and they take questions from me and from you, our live audience here in New York, at the 92nd Street Y. The motion is Don't Trust the Promise of Artificial Intelligence. We've heard Jaron Lanier and Andrew Keen argue that "don't trust" side. They're saying that the central debate of the 21st century will be this one -- that they are not against the technology itself, but they are against the promise, as it has been laid out. They just say that the implications of this world of AI are not being thought through, that -- it's less about the technology, actually, than about a belief system -- and a self-deluding one, they say, at that. They also point out that most of us -- or those of us who are in the expert classes are very likely to be out of a job, that the whole issue has been oversold. The threat to expert professions is real, and that the promise itself is actually scary.

19:50:23

The team arguing against the motion -- and that is to say, they are arguing to trust it -- Martine Rothblatt and James Hughes -- they are actually describing artificial intelligence, when all is said and done, really, as no more than a set of tools -- tools equal to other tools that we have used throughout history. They say that the promise of artificial intelligence itself is obvious. It's the promise that the human being can create technology that can make a better world, not a new story. They laid out the vision of replicating a human mind, not in its structure, but in its function. And they say that an artificial intelligence -- if managed by us, and the choice to manage is ours, has the potential to be good, to be useful, to navigate, to cure -- especially to cure diseases of

the minds, and that it can evolve in an organic and friendly way. So, what we have here is obviously already a discussion, and quite a complex one that is as much about physics as it is about metaphysics, and as much about technology as it is about philosophy.

19:51:22

And we're going to cut through -- cut some of the arguments that have been made into smaller pieces and present them again to take some of what each debater has said to the other side. And I want to take first to Jaron Lanier -- your opponents have said, quote unquote, "We will love the artificial intelligences in our lives." A really powerful assertion of their bottom line that what's there has great promise. It's going to do great good. We're going to become comfortable. We're going to become familiar. They will not be alien. They will be part -- something that is part of our world such that we are glad they are there and they are not unnatural. Will we love the artificial intelligences? Or at least can you respond to your opponents' assertion to that point?

Jaron Lanier:

You know, people are -- we're social. We want to be decent and if we're presented with an artificial character, even the ones that exist today, the Siri or the Cortana, we'll be deferent to them. We'll give them a shot. We find it funny. They're cute. And it can be harmless. If you take it too seriously the problem is that you kind of lower yourself to make the computer seem smarter and we see zillions of examples of this.

19:52:30

A big one going on now in education is teaching to the test because the -- you know, you teach to make yourself look good to the algorithm rather than the actual teaching and the algorithm doesn't quite capture it, and that's just one example of many. I'd like to respond in sort of an unusual way. If you're interacting with Siri or Cortana you might think well, I'm not that different. I'm just a more complicated version of a Siri, in virtual reality this other technology you might be familiar with, I've had exactly the opposite experience. When you're in VR you can turn into some weird creature. You can turn into some weird crab or something and the whole world can change and yet you remain there hanging and I feel as if you notice that your consciousness is this real thing. And I find that experience just amazing. When everything becomes mutable suddenly you realize wow, there is some consciousness thing that's not just mechanism, at least to me, and I understand this is a personal belief and we can argue ourselves into the ground round and round about this thing.

19:53:24

But what I want to say is that if what technologists are doing is telling people hey, you're not so special, our machines are just like you, we shouldn't be surprised if people then respond by saying well, we don't trust your medicine. We don't trust your modernity,

and I see kind of a unified backlash against arrogance in everything from the anti-vaccine movement to fundamentalist --

John Donovan:

All right. You made a lot of points. Let me let Martine Rothblatt --

Jaron Lanier:

Sorry.

John Donovan:

No. That's fine. It's my job to jump in a little bit early, which I'll do, but let's let Martine Rothblatt respond to the point.

Martine Rothblatt:

Thanks. I have no doubt that we will love our AIs just as much as we love our pets, which we also create and end up making themselves into a relationship with us. I could not disagree more with Andrew. I mean, I just imagine that he's creating AIs, this fearful creature that will take our jobs away and it reminds me of somebody standing up in the middle of the 15th Century and saying you know, don't trust the promise of the printing press.

19:54:24

The scribes shall have nothing to inscribe.

[laughter]

And instead -- and you could paint this whole same parade of horrors, you know, the church will control all the printing presses. Instead we've had a [unintelligible] of cognization. We have a new type of person called a bibliophile that loves books and we will have AI philes that will love our AIs. This is, as James said, an enormously empowering and liberating force of AI, and what's most important is that we the people make sure that access to AI is available to everyone and since it will be the hackers, millions of them, dispersed throughout the world that create this AI out of open source software, I think there is nothing to fear and I would argue against the motion.

John Donovan:

All right. Andrew Keen -- was your position fairly characterized there?

Andrew Keen:

Sorry. Say that again.

John Donovan:

Was -- were you fairly characterized there? Are you against printing presses? Or would you have been?

19:55:23

[laughter]

Andrew Keen:

As a writer absolutely.

[laughter]

So, yeah, this is a typical kind of argument that we always fall into in these kinds of debates. Jaron and I will say we have to worry about this stuff. We have to worry that it's not doing what it says it's going to do. And then someone like Martine will come along and say oh, you're just whiners, pessimists. Just look at history. Just look at the history, for example, of the printing press. I don't know how many jobs, by the way, the invention of the printing press caused and one of the consequences, of course, of the printing press was the reformation and the Hundred Years War and a lot of other kind of suffering. So, it's a rather muddy consequence firstly.

[laughter]

That's the first problem. The second problem is more substantial. Because he's making an evangelical spiritual argument. His argument is hopeful. He's saying well, in the past it's always worked out okay, so it will work out again in the future.

19:56:27

And he's absolutely wrong when it comes to technology and jobs. The fact is most major economies, most researchers, most people who spend their living figuring out what we're going to do in this world cannot figure out what people are going to do. He talks about cuddly AIs. That's not a job. There's no labor there. He talks about open source, absolutely nonsense. Open source technology has had no successful in today's digital world. The four largest companies in the world today, the four most valuable companies in the world today are Facebook, Google, Microsoft, and Apple.

[laughter]

And these four companies are the owners of the platforms of our networked age. Where's open source at? Open source is just another ideological dream. It never happens and it -- I doubt it will ever happen.

19:57:23

John Donovan:

All right. Let me bring in James Hughes. You can --

[applause]

-- you can vent. You can let that go. Let me bring in James Hughes to respond to some of what your opponent just said.

James Hughes:

Sure. Well, see, I believe in technological unemployment. It's actually -- I've been trying to make the argument for a decade now that -- of the inevitability of technological unemployment and that we need to start anticipating it. It's actually a hard argument to make right now because employments beginning to pick up again. But I believe in this inevitability. But I'm one of those lefty folks who I've heard the last 200 years think that eventually freeing us all from wage slavery might be a good idea. And that if, in fact, people started to see that -- the inevitability of the elimination of work, that we might all wrap our minds around the concept that there might be something better to do than all have wage slave jobs.

[applause]

Just as we wrapped our mind around social security and Medicare and Medicaid and the British National Health Service and so forth, the progress of social welfare legislation is, yes, that bad stuff happens like the industrial revolution and then we responded.

19:58:29

So I think that we have to sort of imagine that we'll be able to do that again because people are already talking about what the necessary response is to technological unemployment should be.

John Donovan:

Okay, your opponent, Jaron, put forth the idea of translators, professional translators, people who know multiple languages, that gradually machine translation, while stealing from their body of work to build their algorithms and feed their algorithms, will be put out of work eventually. And are you saying that, that's one of those jobs that you would like to see go away?

James Hughes:

Like to see go away? I don't -- I think there is probably no definition of futility of it other than -- no worse definition than knowing that the machine next to you could do the job that you're doing faster, better, and safer, but that you're forced to do it because somebody says, "You can't use that machine." So, yes, I think in the future there will be

all kinds of machines that do all the jobs. I basically -- I think that everything that we do will eventually be done better and faster and safer by machines.

19:59:23

But the things that are most immune right now are the creative jobs. So, you know, my daughter's an opera singer. She's probably relatively immune. I -- you know, if opera could be replaced, it would have been replaced by record players and radio a long time ago. So I think, yes. I think there will be many things that will be replaced. And what it will do is free us up like Andrew proposed to the Marxian vision that we'll be able to be farmers in the morning and poets in the afternoon if that's what we want to do, a life of true choice. That's the vision of the future I have.

John Donovan:

Okay. Jaron Lanier.

Jaron Lanier:

So, look, there are two problems with this. First off, there's a phenomenon I call, "premature mystery reduction," which is when we pretend we have something working that we really don't. So right now, most AI actually depends on scooping up things that people do, including the Go program today which is looking at people's Go games, and the machine translation example. Now -- we want to pretend that there's this AI behind the curtain that's freestanding. But, actually, there's millions of people there, too. Now, the problem with saying, "Well, we'll just pay everybody a basic income and then pretend they're not valuable," when they are is -- it's -- first of all, it's a lie. Secondly, it -

20:00:24

John Donovan:

Why? Why is it a lie?

Jaron Lanier:

It's a lie because they're still needed. I mean, this is like crazy.

John Donovan:

But he's saying that they're not needed. He's saying the opposite.

Jaron Lanier:

Well, he's wrong, technically. I'm sorry I have to pull that on you. The truth is that in order to make machine language work, you have to scrape millions and millions of real translations every single day to keep up with current events and frameworks. So what -- so you're factually wrong to say that they're not needed. Now, if someday -- you could say, "Well, somebody maybe they won't be needed." But, you know, the problem of

that is this premature mystery reduction. I mean, yeah, someday we might be able to float because we understand gravity better or something. I am an optimist. I don't want to believe that we'll always be stuck with our current level of knowledge. So I'm -- in a sense, I'm a transhumanist. But I just believe that it's a fundamental unknown what the timeline is. That's what science is. Science is what we don't know. So we don't know. And so we shouldn't pretend we know. That's lying to ourselves. It's undignified. It's petty. It's silly. It's childish. But also -- I'm sorry, but -- you know, but --

[laughter]

-- the other -- the other --

James Hughes:

But there are things --

Jaron Lanier:

But, but, but, but, but, but, but no, no, no. There's a peril.

20:01:22

There's also great peril in what you're suggesting. If we say, "Instead of taking the dignified path and admitting that people are still needed, if we pretend they're not needed and then we have some agency that doles out basic income to them as if they weren't needed, you really think that thing's not going to be a magnet for corruption? Every history lesson teaches us that, that's a huge peril.

John Donovan:

Okay, I'm going to break in there.

Jaron Lanier:

Don't step into that problem.

John Donovan:

I'm going to break into there to let Martine come in.

[applause]

Martine Rothblatt:

[unintelligible] we're down talking about facts and figures here, because I don't think that the facts support the idea that new technological innovation, such as AI, result in mass unemployment. In fact, there are today, with our global population of almost 8 billion people, vastly more people employed doing things than there ever were in the annals of history. You could imagine that before the turn of the 20th century, back in the 1900s, over 95 percent of all people were on farms.

20:02:23

And somebody would make a very sensible argument, saying, "We can't allow in tractors and things that steal our techniques for harvesting vegetables and food, because then all these farmers would be out of work." Instead, now we have less than 10 percent of the global population raising food. The average nutritional content of everybody, on average, is much higher. And there's vastly more people doing vastly more interesting jobs and passions than ever before. We are an intelligent, creative species. It is in our DNA to solve problems. We wouldn't be here today if we weren't super good problem solvers. In the past, we were farmers, and then carpentry. Now, coding is the new carpentry. We will figure out new and amazing things to do.

John Donovan:

I want Andrew Keen -- Andrew Keen. Now, Andrew, you're also anti-tractor, as opposed to -- and anti-printing press. What about them? You are hearing -- you accused your opponents of optimism, and they certainly do sound optimistic. What's wrong with that?

Andrew Keen:

No I [unintelligible].

20:03:23

Look, there's nothing wrong with -- John, there's nothing wrong with optimism. I mean, as long as you're optimistic about -- and you're realistic. And by the way, Jaron, I didn't know you were transhumanist. If I'd have known, I wouldn't be on your team.

[laughter]

Jaron Lanier

I meant, you know, within the context of how unknown it all is, you know?

Andrew Keen:

But the unknown unknown. Right? That's transhumanism.

Jaron Lanier

Yeah. I'm a Rumsfeldian transhumanist.

[laughter]

Andrew Keen:

[unintelligible] now. And by the way, I have no idea --

[speaking simultaneously]

Andrew Keen:

-- what our team -- our teams seem split. On the one hand, we have one guy saying that he's celebrating the elimination of work. And then Martine is saying that actually, we're going to innovate so much that everyone will have new jobs. So, you guys have got to make up your mind, whether you're for or against --

John Donovan:

Well, we'll stop you right there.

Andrew Keen:

-- jobs.

[laughter]

John Donovan:

Has he pointed to a contradiction in your team, James?

James Hughes:

I -- well, it partly depends on what a job is in the future. You know, I'm -- what I want to see eliminated is wage slavery. I think we'll all have occupations. Aristocrats who didn't have to work in the past all had occupations of one sort or another that kept them from, you know, putting guns in their mouths.

20:04:23

And I think that we will find out those too.

[laughter]

John Donovan:

But they had lots of serfs taking care of things for them.

James Hughes:

And we will have artificial intelligence taking care of us.

John Donovan:

Jaron.

Andrew Keen:

But can --

John Donovan:

All right. Andrew --

Andrew Keen:

Can I just say one thing? That -- we're sort of talking -- in these kind of debates, everyone's throwing, you know -- we know this from the presidential debates -- everyone's claiming the facts are on their side. But the reality is when you look at the numbers, when you look at the serious research, you will find that the vast majority of economists are deeply worried with this, Martine. What -- give me some examples of economists who say, "Yeah, there's going to be millions of jobs in the future. We don't need to worry about this?"

Martine Rothblatt:

You know, I'm reminded of the famous quotation from Arthur C. Clarke, who said that if you ask a lot of experts in their field whether or not something is possible, and they say no, they're almost certainly wrong. And it's the same thing about the economists. They have been wrong repeatedly throughout history. So, going to a source like economists -- I would look at the bare facts. We've got eight billion people in the world, fewer people starving than when I was growing up.

20:05:28

Vastly more people employed. Those are the bare facts. And furthermore -- furthermore, let me just say one more thing. We're just at the beginning of what we can do as a human species. We've got things like electric cars from Tesla that just 10 years ago, all the economists, and the technocrats, and the bureaucrats dismissed as impossible. Now people are saying, "Hey, soon the whole economy is going to be electric." If you are a person who loves life, you will never run out of cool things to do.

John Donovan:

I'll get Jaron in there.

Jaron Lanier:

Martine, I want you to be right. And I think you probably are, in the sense that there will be new things for people to do. All we have to admit is that people need to do them and that they could be paid for it, and then we can still have dignity. The only danger is not so much that people become obsolete. The danger is that we'll pretend they're obsolete.

Martine Rothblatt:

Absolutely. And already, the Europeans are leading the way to --

Jaron Lanier:

So, you agree --

Martine Rothblatt:

-- guaranteed annual income --

Jaron Lanier:

You know, the [unintelligible] is screwed here.

Male Speaker:

We do. We totally agree --

20:06:23

Jaron Lanier:

You have like -- [laughter] --

Martine Rothblatt:

There will be social dividends that -- it's just like Bernie Sanders says. Medicare for all. Social Security for all. So, there will be a basic social dividend that's paid for everybody. We can afford it. Let's do it.

John Donvan:

James Hughes, one of the strongest statements your opponents made is that we are not ready to replicate ourselves. Take that question on.

James Hughes:

Well, I do think that there's a great deal of mystification about the nature of artificial intelligence in the future. Martine has a fairly embodied notion of what artificial intelligence would be. Mine is much more diffuse. I think that the potential space of what artificial intelligence will be in the future is, it's very difficult for us to imagine. So far we have a lot of anthropomorphic projection onto that state. Those who expect that something is going to jump out of a box is going to take over the world, the world has 10 seconds to defeat it -- I mean, that's an anthropomorphic projection of an adolescent, you know, male fantasy onto, "Well, if I was king of the world." [laughs]

20:07:22

And I think, you know, it could be like -- an artificial intelligence might just want to communicate with the -- with whales, or with the stock market, or with the stars. And grow like moss on the side of a mountain. I mean, we just have no idea what artificial minds are going to be like. So, yes. I think, if the project is to replicate a human mind and put human mind emulation into a machine, that's one kind of project. If, on the other hand, self-awareness emerges out of the Internet or just through all the communications and information in the world, we have no idea what it's going to be like.

John Donovan:

Let --

Martine Rothblatt:

I agree with James, because, you know, contrary to what Andrew said, the mass of people throughout the world are the ones who are creating our Internet. Websites were not created all by Google, and Amazon, and Apple. They were created by literally millions of people creating the [unintelligible] --

Jaron Lanier:

But then these things are appropriated by --

Andrew Keen:

All right. Let's use -- okay. Martine, let's use --

John Donovan:

Okay. [unintelligible] Andrew Keen. Andrew Keen.

[speaking simultaneously]

Andrew Keen:

-- the example of Google. Google has created -- you know, Jaron has defined artificial intelligence, I think, very intelligently, as the algorithm. Google owns the most valuable algorithm in the world.

20:08:23

There's no secret sauce to that algorithm. It's not as if Larry Page and Sergey Brin at Stanford suddenly figured out, "We're going to create this remarkably intelligent algorithm." And --

Martine Rothblatt:

[inaudible] --

Andrew Keen:

Well, let me finish. No, let me -- let me --

John Donovan:

[unintelligible] --

[speaking simultaneously]

Martine Rothblatt:

You let him hold the most valuable --

John Donovan:
Do let him finish.

Martine Rothblatt:
-- operating system in the world, and they [unintelligible] --

John Donovan:
Martine, let him -- Martine.

Martine Rothblatt:
-- that --

John Donovan:
Let him finish, please.

Martine Rothblatt:
-- Google is today.

John Donovan:
I'm going to give you your shot.

Andrew Keen:
So -- and this is just to reiterate what Jaron had said. That algorithm is a collection of our intelligence. Google essentially has aggregated the entire intelligence -- brilliant, brilliant maneuver. Fantastic. I'm not saying it's immoral in any way. But Google now owns our collective intelligence. It's a company now that's worth -- it probably will be the first company that's worth a trillion dollars. Where do they pay it back to us, our intelligence, that revenue? And that's Jaron's point. When you tear back the curtain, it's not artificial intelligence.

20:09:23

It's us. And we're not benefiting.

John Donovan:
Martine.

Martine Rothblatt:
Andrew, Google does not have --

[applause]

Google does not have the intelligence of one 9-year-old girl, okay? All they've got is a bunch of data that's been hoovered up, along with dozens of other companies who have hoovered up that same data. What Google thinks is magical and is special today -- 20 years from now, will be passé and unnecessary.

Andrew Keen:

So, why is Google such a valuable company?

Martine Rothblatt:

The same reason that IBM was 50 years ago. They had a point in time when they provided a valuable service to the market. IBM was more valuable relative to the economy 40 years ago than Google is today. Now it's kind of irrelevant. Google will eventually become irrelevant.

James Hughes:

I just think it's fascinating that you reiterated my point --

John Donovan:

James Hughes --

James Hughes:

-- which is that artificial intelligence is, in fact, a crystallization, a formalization of collective human intelligence. And therefore, not to trust the promise of artificial intelligence is to dismiss the promise of collective --

20:10:23

John Donovan:

Okay.

James Hughes:

-- human intelligence.

John Donovan:

So --

James Hughes:

Yes, I don't think it should be in private hands. But that's a different question. So, you know --

John Donovan:

Jaron, hang on just one second.

[applause]

Wait just one second. Just one second. I'm going to let Jaron answer. But after his answer, I want to start going to audience questions. How this will work is if you will raise your hand, I will call on you. We would like it if you would stand, tell -- Jaron is going to speak first. Stand, tell us your name. Wait for the mic so that you can be heard on the podcast. And then ask a question that is a question that takes less than 30 seconds. If you're a member of the media or a blogger, we would appreciate it if you would identify yourselves. Let me let Jaron respond to that point.

Jaron Lanier:

So, we have the latitude to perceive agency in others or not. We have the latitude to perceive consciousness or not. We have the latitude to perceive God in the world or not. We are free to perceive different things. There's no consciousness meter that will tell you if somebody else is an automaton or not. Some of the people might feel -- seem to be so on occasions, and I -- you know, I don't know.

20:11:23

I mean, I can't tell what's inside somebody else's heart. We love each other on faith. Just like we know God, we can't really know. We can only know our own consciousness. And so, you absolutely have the latitude to perceive machines that way. The question is whether it's useful, smart -- I mean, my argument against it can never be to challenge your faith, or your idea, or your aesthetics, as I said before. I do have a pragmatic argument on a society level, though. And the thing is, tech companies -- which I'm totally in bed with. They're not like some other. That's me. But the tech companies are so powerful that we're basically like de facto governments now of the world and so what we need to do is insist, as I said before, on a church-state separation.

20:12:33

What we have to do is insist that these massive powers don't adopt particular faiths about what's conscious or not because that totally screws you up. As soon as -- all of the sudden you're owning women's bodies because you believe that a fetus--

John Donvan:

I don't think your opponents disagree with that. Do you?

Martine Rothblatt:

No we don't.

James Hughes:

Bioethics, we have to determine what a person is. We have to have an ideology, otherwise you treat a stone the same way you treat a human being. One thing has

consciousness, the other doesn't. It is an empirical question that we will have to solve in the future.

Male Speaker:
It's --

James Hughes:
What kinds of artificial intelligence have moral standing and which kinds don't?

Jaron Lanier:
You know, we must give people latitude to have different beliefs about this. We must not impose beliefs on each other about this.

John Donovan:
But you all agree.

Jaron Lanier:
If you feel that they must be imposed then we have an extremely sharp disagreement that cuts to the core --

James Hughes:
You think there should be no law determining who's alive and who's dead?

Jaron Lanier:
No, no. There precisely can't--

20:13:23

Look, we have to give people the latitude to decide that a fetus can be aborted. We have to give people the latitude to decide that they treat their dog like a child. We have to give people the latitude to fall in love with their computer. We have to give people the latitude to think that their computer should be dumped in the East River.

John Donovan:
Okay.

[talking simultaneously]

Jaron Lanier:
If we impose these beliefs on each other --

[talking simultaneously]

James Hughes:

You also have to figure out legally whether your lab tech can be put in prison for not fixing your computer correctly, you know, whether that's medical malpractice or not. So, we're going to have to figure these questions out. It will be a matter of law and public policy.

John Donovan:

All right. Let's go to some questions from the audience, please. Right down in the front. Third row. Thank you. Can you tell us your name, please?

Male Speaker:

Yeah, my name is Nick Hill. So we've been talking a lot about artificial intelligence as it could replicate the human mind, and in the past when technology has been created we've been able to sort of adapt to it because humans have always been the smartest being on earth. The goal of artificial intelligence is to create a system that could actually be smarter than a human being.

20:14:23

So, I'm wondering when that happens how do we make sure that human beings are one, on the good side of it, and two, what's really preventing it from --

John Donovan:

You're saying that time it would be different. That would be a different -- a game-changing technological development.

Male Speaker:

That development when the computer is smarter than a human being and can replicate itself.

John Donovan:

Let's take it to Martine.

Martine Rothblatt:

So my view is that there's not a -- it's a false dichotomy between an artificial intelligence that's smarter than a human being and a human being. I think that for an artificial intelligence to be smart and intelligent it needs to be as human as we are and therefore there's a continuum of consciousness between humans and artificial intelligence. The dichotomy is false.

John Donovan:

Let's go to Andrew Keen.

Andrew Keen:

Jaron, would you like to respond?

Jaron Lanier:

Yeah, I'd like to. I don't think this is new. It's happened before and the example I'd like to give you is Adam Smith's invisible hand, that markets can do things that people don't seem to be able to with planning and the thing about markets is I'm very much a Keynesian. We have to be able to use them as tools. We have to treat them as technology not as religion.

20:15:23

As soon as we treat the market principle as religion then we actually screw up markets even, so sorry Chicago school, but that just seems to happen. And so the wise thing to do is to recognize that we can build these things. We have and yet we build them in a way that we can use them as technology, not as religions, and we can use them well, just like markets.

John Donovan:

Right down in front here.

[applause]

Male Speaker:

My name is Ahmad [spelled phonetically]. I'm a programmer. I'm not at the same level as the goat herder/AI researcher, but I'd like to ask one question to the panel because I feel that I agree with Jaron here. What do you think AI is? What do you think it's accomplishing? I mean, as a programmer what do you -- why would I want to build consciousness into a machine? Isn't it that technology throughout history has been automating structured tasks that need no intelligence, something that's repetitive that we can make it over and over again, and if we get away from the Phillip K. Dick sci-fi-ish thing there is really no need to have consciousness into a machine. So what --

John Donovan:

Okay. I think the question --

20:16:22

Male Speaker:

What is AI? [unintelligible] I'd love to, you know, yeah --

James Hughes:

Well, this goes back to the previous question. Is AI something outside of ourselves or is it an extension, an intelligence augmentation of us? And I don't think there's a market plan for toasters that don't want to give you toast because it has something better to do that morning. Or a bomb that doesn't want to bomb because it likes the person that

you're trying to bomb. You know, there's no market plan for truly self-aware, self-determined robotics, except for those who perhaps want to continue their own consciousness in an emulation of their brain. That's a particular market plan. Other than that I don't see a great market plan for that. So, for the rest of it it's an extension of human intelligence into the world and therefore I call that intelligence augmentation as opposed to artificial intelligence.

John Donovan:

Andrew Keen, do you want to take the question as well?

Andrew Keen:

Yeah. I mean, I'd rather -- I think Jaron should define artificial intelligence. He's probably the most suitable of everyone. He gets it more than anyone.

Jaron Lanier:

Well, I mean, AI is more than anything else a funding category for research.

[laughter]

No, I mean, it's like --

[applause]

20:17:23

-- and it incorporates a wide range of disciplines and pursuits that might or might not have been bundled together and they were bundled by historical accident in many cases. AI steps on its own foot periodically. What happens is there's a kind of a crazy wild-eyed-ness of like, "Oh, we're about to understand how to replicate a person," and then the funders are like, "Boy, you sure didn't deliver." And then there's this thing called an AI winter that keeps on happening. And then you watch your grad students having their careers ruined. And then it finally happens again. But -- like we step on our own feet constantly with this fantasy life. And if we could only just be good engineers and scientists, we would free ourselves from this burden of just constant self-destruction.

John Donovan:

Okay, I want to -- Andrew, I think you might be regretting passing that.

[laughter]

Andrew Keen:

Is the -- are these AI winters getting shorter, and the summers are longer? And at some point is it going to become real? Because my experience in Silicon Valley as an

entrepreneur and as a technologist, there -- it's always a question of timing. So Jaron's right about AI being a category for researchers. But now it's a category for entrepreneurs. You wander into a VR and you say, you know, "I've got AI for this, AI for that, and I'll write you a check."

20:18:22

Jaron Lanier:

Lately the VP will say, "Oh, I spent all my money on VR startups."

John Donovan:

All right, let's go to another question.

Male Speaker:

But are we getting closer to the reality?

Jaron Lanier:

Well, it doesn't mean anything. There's no definition. I mean, that's the thing I'm trying to say is that we have a field that's lost its moorings to fantasy. So we don't know. I mean, I very strongly believe in research and coordinated systems and algorithms. I strongly believe that these things are improving the world and that they are essential. I strongly -- you know, I -- the actual work is great. But the fantasy life -- just --

John Donovan:

I want to -- I want to break in, Jaron, because Martine has direct experience in creating this artificial intelligence cyborg based on your wife. Tell us what AI is for you?

Martine Rothblatt:

So I think it was a great question that the gentleman from the audience just asked in terms of like, "What is the need or the desire for AI?" And my response is that there is nothing probably that people value more than other people. And we have families and children for that reason.

20:19:26

What we value most about other people is probably their mind, if you want to call it their soul, their spirit, their comradery. And so there is going to be an irresistible pressure for lots of people to try to create artificial people. That's what humans do. We like houses, we make artificial houses. We like to go fast, we make artificial horses. We love minds, we make artificial minds. So this is the kind of irresistible pressure I think that will end up bringing artificial intelligence forward. And as James and Jaron and Andrew have said, create a touch point for solving the ethical issues about what we do with this AI, who controls the computing substrate and the software substrate for this AI, and where do we want it to go?

20:20:23

It's a societal issue, which is exactly why we need these type of debates and forum.

John Donovan:

Okay. Now, we've only had men from the audience so far and I only see -- oh, thank you. Down in the front row, please. It's coming from your left side.

Female Speaker:

So I think that point actually speaks directly to my question. You brought up earlier that, as we go through this transition, I think every --

John Donovan:

Just so the podcast people know, you're addressing Martine.

Female Speaker:

Oh, yeah, to James.

John Donovan:

Oh, to James? I'm sorry. Okay.

Female Speaker:

So, to James, he brought up earlier as we go through this transition, I think actually everyone on the stage probably agrees that there is great eventual promise in the technology of AI. It's just, "How do we get to that promise?" And the team for the motion is saying there are some problems with that. And you brought up politics as -- and the political system as a way. And both of you, Martine and James, have spoken about human ingenuity.

John Donovan:

Okay, can --

Female Speaker:

So I just want--

John Donovan:

Thanks.

20:21:23

Female Speaker:]

-- you to -- especially after the last two weeks, how do you get your optimism on that point?

[laughter]

James Hughes:
Well.

Martine Rothblatt:
Yeah.

James Hughes:
Our ancestors did not participate in the political process to the extent that we fantasize that they did. You know, there was a lot of backroom deals. It's fascinating to me that the Republicans are actually debating whether they should have a brokered convention and that there's so much pushback from the leadership of the party because they realize that there would be a huge groundswell of opposition from the base. And that's because we have become a more democratic society. The smarter that we get, the more time and leisure that we have as a civilization, the more democracy becomes real. And what we're seeing is some of the unfortunate consequences of democracy becoming real. It's not -- it's not pretty, you know? It's not pretty in the Arab world. It's not pretty here. It's not pretty in a lot of places. But it is democracy maturing and going in the right direction.

20:22:32

John Donovan:
Another question? Right down [unintelligible] side.

Male Speaker:
[unintelligible]. So, the good life we have now is built on the destruction and enslavement of many, many people and many, many species. And the planet is in danger right now from our activity. Why do we think that the -- that we can handle this AI that's coming at a speed faster than anything we've ever done? Why do we really believe we have the moral and intellectual ability to do that, given our history?

[applause]

John Donovan:
James Hughes.

Andrew Keen:
Because of the printing press, right?

James Hughes:

Well, I think all technologies raise a similar question. I mean, you're right that I am an accelerationist, as I do believe technologies are speeding up.

20:23:24

I don't think it raises a fundamentally different question than previous technologies did. I mean, we could have said the same thing about the car, for instance. The consequences -- one of the distinctions we make in my field is between dual use technologies and single use technologies. Nuclear weapons, it's hard to defend as an ethical technology. But artificial intelligence is one where we have to accept there are so many positive benefits that we have to take it on board and try to figure out how to mitigate the downsides.

John Donovan:

Okay. I want to remind you that we are in the Question and Answer section of this debate from Intelligence Squared U.S., from Artificial Intelligence Squared U.S. I'm John Donovan, your moderator. We have four debaters -- two teams of two, debating this motion, Don't Trust the Promise of Artificial Intelligence. Let's go on to some more questions. Right there on the aisle. No, farther up on the aisle. Thanks.

Female Speaker:

Hi. This question is [unintelligible] --

John Donovan:

Can you tell us your name or at least first --

Female Speaker:

Oh, sure. Michelle Chevin [spelled phonetically]. I'm a senior analyst at Luminary Labs. The question is primarily for Martine, but I'd love to hear everyone's take.

20:24:23

So, Bruno Latour talks about the central political questions of our time and of the near future as being around who is included in the society that we're building and the system that we're building. So, I'd like to problematize the idea that actually James brought up, that maybe -- you know, we have to draw this distinction between conscious and unconscious beings. And is it maybe part of the problem that we have drawn so much distinction between levels of consciousness? And I wonder -- you know, we could have said the same thing about the car, about agriculture. And maybe we should have. So, isn't it actually irresponsible, as the gentleman just said, isn't it irresponsible to trust the promise that humans are actually capable of building a system that will deliver us from the --

John Donovan:

Okay.

Female Speaker:

-- destruction that we've wrought on the planet?

John Donovan:

Let me -- let's bring that first to Jaron Lanier.

Jaron Lanier:

The great danger we face is within ourselves, we've gotten good enough at technology that most of our problems are brought by our own actions now.

20:25:25

We are rarely attacked by giant asteroids, or dinosaurs, or anything. We are in our own troubles. And so, the solution to that has to be clarity of mind. We have to be able to see clearly what we're doing to ourselves in order to do something differently. So, the thing that I keep coming back to here is to do everything possible to not fall into fantasy. And I -- it's odd, because it's a very technical sounding fantasy. And so, you think, "Well, because it's got this technical flavor to it, it must be less fantastical than some of the other fantasies that we hear our political and social lives being drawn into all the time." But it really isn't. I wish somehow there was a way for people to just see inside these algorithms. They're not all that fancy, honestly. I mean, they're cool, but they're not -- it's much more just the size of the data we can get these days, you know?

20:26:26

Years and years ago, Marvin Minsky, who I mentioned, had helped some graduate students would make a language translator over a summer project. And it didn't work for decades and decades, until we could get enough samples from people in massive quantities. And that's where we still are. And it's fantasy that we've really uncorked the core of language and we understand how language works is not so. We have statistical correlations between what real people do. But we don't have any way beyond that yet. We might, we might. But it's -- that's an unknown --

John Donovan:

Okay. Let me -- let me --

Jaron Lanier:

So we mustn't -- we mustn't hypnotize ourselves if we're to survive.

John Donovan:

Let me let Martine answer the original question.

Martine Rothblatt:

Thanks. I agree with Jaron that we are at war with ourselves. And perhaps, as humans, we always have been. But one of Eisenhower's best quotes was that no war was ever won by pessimists. And in order for us to win this war with ourselves, we too must be optimists.

20:27:26

And I believe that while we face towering problems -- global warming, starvation, and whatnot -- we've also made towering successes. We've raise more people out of poverty than ever before. We've been able to get literally billions of peoples through their elected representatives into a written agreement to reduce global warming. I mean, the act -- you talk about economics. They're getting billions of people to agree on anything. I mean, it's hard to get five people to agree on anything. So, I believe there is legitimate, pragmatic cause for optimism. And as James, and Andrew, and Jaron, and we have all said, the promise of artificial intelligence is not that it's going to be here tomorrow, in four years, or eight years.

20:28:23

This is a multi-decade process. And I do believe we have time to get it right.

John Donovan:

Andrew Keen, you have not -- your side has not reached for this sort of Hollywood version of the smart machines taking over, and making a direct enemy of humankind, and killing humankind. But in fact, it's -- there are serious people outside of Hollywood scriptwriters who are coming up with those scenarios and saying they're real. Elon Musk, for example, said with "artificial intelligence, we are summoning the demon" -- meaning more than you're talking about with jobs. Is that fantasy, Hollywood world off the table, as far as you're concerned? Is that so far out there as to be irrelevant?

Andrew Keen:

There's a guy at Oxford University called Nick Bostrom, who has written an important book about this. And I think his book very much influenced Musk and a number of -- Cambridge University has a Center for Existential Study. It comes back to the Rumsfeld thing again. We don't know -- it's about knowing about unknowns.

20:29:24

At the moment, I don't buy -- it's a -- as you said, it's a Hollywood scenario. The idea that we're going to wake up in the next five or 10 years, and robots will not only be smart enough, but acquire their own consciousness, and have a -- what Marx might call a species being -- I think, is absurd. But we don't know. And a lot of it depends on Moore's law. A lot of it depends on the -- sort of the runway of computational power.

And the reality is it's not impossible. But I think it's an unhealthy part of the debate, because it's so speculative and so easy for Hollywood scriptwriters to take advantage of. The real issues are the ones that we're talking about today. The real issues are jobs, what we're going to do, who owns all this, who owns all these algorithms, and how we, as a species, benefit.

John Donovan:
James Hughes --

James Hughes:
Andrew, I just want to say --

John Donovan:
[unintelligible] --

James Hughes:
-- on this we actually agree. And I think that there is a path forward in how we prepare for the possibility that -- what I consider a currently remote possibility -- of catastrophic emergence of some kind of artificial intelligence.

20:30:31

And that would be precisely the path that we have explored around cyber theft, cyber security, having resilient information systems, being able to turn off pieces of the Internet -- that's if we need to. We have a path forward. And it's unfortunately the magical thinking, which I think you're correct about, in certain quarters, which leads people to say, "Oh, no, no. It's going to jump out of the box and in 10 seconds it's going to take over everything," and then send its nanobot minions to knock down your door. That is fantasy. And that means that people don't pay attention to the political, and security, and criminal sanctions that we can put in place today to minimize that possibility.

John Donovan:
Jaron Lanier.

Jaron Lanier:
So, I feel as if I'm arguing against a great tide of Hollywood scripts, but I just have to repeat that this question of whether the technology that might destroy the planet would be alive, or conscious, or intelligent is actually irrelevant.

20:31:25

The only thing -- but such a technology could exist. Building a Skynet, as shown in the Terminator movies, wouldn't take a lot of code, honestly, at this point.

[laughter]

Like, you know, I think we could do it in a week workshop or something. You know, you --

[laughter]

-- it's not that hard to see how you'd make a self-replicating drone at this point. I think we can print them. We can put guns on them. I mean, like, honestly, don't do it, you know? But --

[laughter]

-- the thing is that's the point. Like, the distinction between some smart machine that hurts you and some malfunctioning machine that you can't operate that hurts you is a nil distinction. They're just both badly engineered. As long as we are beholden to this mythology of the evil machine, we will not be able to see clear to design well-functioning machines that we take responsibility for and use well. And I don't know how to shake you from this hypnosis. You've seen these movies and you keep on going back into these thought patterns. Please, please, consider that this isn't a real thing.

20:32:22

Please consider that the difference between one machine that works terribly and another machine that works terribly is not important. They just both work terribly. An important difference is between those and a machine that works well. That's what you should focus on. Can't you see that? I mean, I --

[laughter]

Martine Rothblatt:

And --

Jaron Lanier:

-- I love these Hollywood movies. I love them. They're great. But don't live in them.

James Hughes:

-- Jaron, I think you're right. I mean, it doesn't make any difference morally if a human being in human civilization or a robot does, but they're equal catastrophes.

John Donovan:

But when we get to the point where the debaters are agreeing with each other, we're in trouble. So, I'm going to say that concludes round two of this Intelligence Squared U.S. debate.

[applause]

Where our motion is Don't Trust the Promise of Artificial Intelligence. Please remember how you voted before the arguing began, because we're going to have you vote again right after this brief closing round and again it's the numbers -- it's the team whose numbers have changed the most in percentage point terms who will be declared our winner. But first round three, closing statements. Each debater will speak uninterrupted in turn for two minutes each. The motion is Don't Trust the Promise of Artificial Intelligence. Here to summarize his position supporting the motion not to trust, Jaron Lanier, a computer scientist and author of the book, "Who Owns the Future?"

20:33:25

Jaron Lanier:

There haven't been too many times when you've been told by technical people that you must reduce your sense of autonomy in order to be hip and with it and intelligent and not left behind and not like, you know, in order to stay with the kids you must accept that you will have less autonomy in the future, that there will be these other things that you're not responsible for, even though they were made by people. Don't give up your sense of human responsibility. These machines are ultimately for the foreseeable future until unforeseen scientific breakthroughs rehashing the activities and the brilliance of people in new ways. If we recognize that properly we don't need to face technological unemployment, but if we fall into this mythology from all these beautiful screenplays and all these wonderful productions, if we accept the machines as being living things, unfortunately there's a bit of a zero sum game. It means that we'll be saying oh, it's the machine's fault. It was the machine that did this.

20:34:22

It was the machine that was good or evil. The moment you do that you're letting go of your responsibility as a person. The moment people let -- accept the notion that people have less responsibility, at that moment we start losing a bit of civilization. We lose a bit of society. We lose a bit of ourselves, and there's no reason for it. I mean, I love the digital technology. I've delivered my life to it, but honestly on the inside it's still pretty crappy, honestly. It's not that impressive. Don't get snookered. Don't get snookered. Believe in yourselves as real mysterious living organisms who are not yet fully understood by science. You have to understand we live in a sea of mystery. We understand so little of our situation. Take joy in that mystery. In that mystery you also

find the profound sense of responsibility that you're capable, that you're morally impelled to hold onto. Science fiction is great in the theater. It stinks out on the street.

John Donovan:

Thank you, Jaron Lanier.

[applause]

The motion is Don't Trust the Promise of Artificial Intelligence.

20:35:24

And here summarizing his position against the motion, James Hughes, executive director of the Institute for Ethics and Emerging Technologies, and author of "Citizen Cyborg."

James Hughes:

Two hundred twenty years ago the French aristocrat mathematician, Nicolas de Caritat, marquis de Condorcet, was hiding from the terror of the guillotine. He had been the revolutionary. He had been a mathematician who had come up with the theorems that argued that the crowd could be wiser than the individual kind of the bedrock of democratic argument. And he had served in the revolutionary assembly, but he was a liberal and he fell on the wrong side of the Jacobins he was hiding from them. And he decided to write a history of human progress and he got through the first chapter basically, the first book of that history. The sketch for a historical picture of progress in the human spirit, and he argued that in the future, from his perspective, we would liberate women, we would eliminate slavery, we would eliminate toil. There would be no more work.

20:36:23

That we would eliminate disease and death. And that all of this would come about through the combined effort of the enlightenment project of democracy, equality, solidarity, and the use of human reason through the use of science and technology, new scientific languages and techniques. We face the same challenge today. He -- by the way, he finished that book, went outside, got caught by the Jacobins and was executed. But for me he was an optimist, sitting there under threat of death looking forward to a future which we actually have achieved and we faced that challenge today. Remembering how far we've come and having the optimism that we can muddle through and use these tools that we have developed to create a better future, and therefore I urge you to vote against this resolution. Thank you.

John Donovan:

Thank you, James Hughes.

[applause]

And that motion again, Don't Trust the Promise of Artificial Intelligence, and here to summarize his closing statement against the motion, Andrew Keen. I'm sorry. Andrew Keen will be making his closing statement in support of the motion.

20:37:23

"The Internet is Not the Answer" is one of his books. He is also the host of "Keen On." Ladies and gentlemen, Andrew Keen.

[applause]

Andrew Keen:

Just gave me the subject to my next book title, "AI Is not the Answer." So we've -- Jaron I think in a very articulate way asked us not to fall into fantasy. This is a debate a conversation about supposedly the reality or the fantasy of AI. It's -- when you make your votes at the end, we're not debating AI. We're not debating its potential. We're debating its promise. We're debating the ideology of the other team. We're debating the way in which they say AI can liberate us from the things that have enslaved us, made us unhappy, or perhaps indeed defines what it means to be human. Now, I think they're wrong.

20:38:23

I don't think we can trust them. I don't trust James when he celebrates the elimination of work. That's an absurdity. We can laugh at it. We can snigger. But it's utterly absurd to believe in today's world in the early part of the 21st century in political terms that any government in the world will simply have the resources, the political will, to support people who don't work. It's nonsense. Marx's ideas in the middle of the 19th century and nonsense about us being able to farm in the morning and be poets in the afternoon is very noble, very inspiring, but it's nonsense. It's fantasy. That's why you shouldn't promise it. But let me finish with Martine. She says, "There nothing we value more than other people." I agree with her. But why? Why do we value other people? Because of their complexity. Look at the person you've come to, to this event.

20:39:23

Think of them, your husband, your wife, your friend, your lover, your child. We love these people because of their complexity. The idea that Martine seems to be so confident that we can replicate that complexity is in my mind not only a fantasy but a dangerous one. That's why we should not trust the promise of AI.

John Donovan:

Thank you, Andrew Keen.

[applause]

And that is the motion, "Don't Trust the Promise of Artificial Intelligence." And here to make the closing statement against the motion, Martine Rothblatt, and entrepreneur and author of, "Virtually Human: The Promise and Peril of Digital Immortality."

Martine Rothblatt:

I'd like to ask you to think of AI not as a science project but as an art project. If the human is the most delectable part of reality, then indeed it is the most important subject for art.

20:40:23

And so it has been, so we have been throughout the ages in sculpture, in painting, in literature, in theater, in film, and now in AI. We are creating AI as a work of art. I believe that we should trust in the promise of AI because this work of art, this replication of a human mind will prove to be fascinating to people throughout the world and for decade after decade. We will each try to one-up ourselves to see if it can be done, "Is this really a human mind? Have we painted a human mind yet not with colors but with code?"

20:41:14

I trust in a promise of AI because already decades, maybe if we listen to our opponents, centuries away from there actually being an AI, we've taken time out of our day to gather here and to begin to debate the ethics and the rights and wrongs of, "How do we want these AIs to be? What kind of restrictions do we want on them, taking our jobs? What kinds of rights and obligations should they have?" We are a pretty impressive group of people to be thinking about the ethics of something which some believe, many believe, to be a century or more away. And, hence, I ask everybody to vote against the resolution and instead feel that we can trust in the promise of AI because we can trust in the promise of all of us to build this immense and beautiful work of art, the human mind, and to cast the human minds that we create in an aura of applications of utility and ethics and practicality.

John Donovan:

Thank you, Martine Rothblatt.

[applause]

20:42:22

And that concludes our closing statements with the motion, "Don't Trust the Promise of Artificial Intelligence." And now it's time to learn which side you feel has argued the best. We're going to ask you again to go to the keypads at your seat and vote a second time on this motion: Don't Trust the Promise of Artificial Intelligence. Be very careful about that. Don't -- it's -- vote number 1 is don't. It's this team. It's -- vote number 1, position number 1. If you disagree with the motion, you agree with this team, that's number 2. If you became or remain undecided, it's number 3. Again, hold that keypad down until you see your number show up in the window, and that means your vote has registered. And we should lock it out in about 20 seconds.

20:43:23

Okay. It looks like the -- everybody has voted. We'll have the results in about 90 seconds to two minutes. While we're waiting for that, I just want to say this -- if I could have your attention please. First of all, it's really an honor for Intelligence Squared to come across town and to be in all -- this great institution, the 92nd Street Y. We're delighted and honored to the organization for having this take place in the Seven Days of Genius Festival. They've been terrific to work with. And we just want to thank 92nd Street Y for having us here.

[applause]

And second thing I want to say about the debaters on this stage, this was -- this was a challenging and esoteric topic.

20:44:23

But we also -- and I think it became clear, it's a very, very important one. The conversation has to be had. And all of the debaters agreed that the debate has to be had. And they took part in it in a way that I think made it very, very accessible to anybody who might tune in, or drop in, or listen to this conversation. You made it understandable for us. You showed us the stakes, but you also gave us a handle for understanding what the stakes are. You did it with civility, with passion, with honesty. I want to thank all of you for what you did on the stage here.

[applause]

The final thing I want to say is Intelligence Squared U.S. -- those of you -- and I -- again, I do see a lot of faces from our West Side venue have made the trip over. So, this is for everybody else -- also you as well. Intelligence Squared is a non-profit organization. We put this podcast out to the world for free. It's available on a lot of platforms. It's used now in thousands of schools. And we do it with the support of individuals who make donations to our organization.

20:45:22

So, if you liked what you heard, not only would we love to see you at our other events, which take place all year long -- roughly on a monthly basis. But we would be most grateful if you could make a contribution through our website, IQ2US.org. So, on April 6th, we're going to be back at the Kaufman Music Center. That's on the Upper West Side, right above Lincoln Center. The motion being debated will be this: "Eliminate Corporate Subsidies." Among the debaters, we have one of the world's most famous former lobbyists, Jack Abramoff. And --

Speaker:

Wow.

John Donovan:

Yeah. Yeah. That's a wow.

[laughter]

But you know, you were a wow too, so -- you know -- and Zephyr Teachout. Zephyr Teachout will be arguing as well -- a candidate for governor. So, that's going to be a pretty great debate. We hope that you can make it. Once again, the date is April 6th. Then, on Wednesday, May 4th, we're going to have the editor-in-chief of Field and Stream Magazine and the president of the Human Society. We'll be debating the motion, "Hunters Can Serve Wildlife."

20:46:22

Tickets for all of these upcoming debates are available through our website, IQ2US.org. And if you can't make it to our live events -- as I mentioned, we're on a lot of platforms. They include the IQ2US app. That's on Apple and Android mobile devices. And you can search for our debates, IQ2US, in the iTunes store or in Google Play. And you can watch the livestream on IQ2US.org. We've been livestreaming throughout the evening. And you can also listen to our debates on many, many public radio stations across the nation. Okay. I have the final results now, and it goes like this. Remember, we had you vote two times, both before you heard the arguments, and again after you heard the arguments. And it's the team whose numbers have changed the most in percentage point terms between the first and second votes who will be declared our winner. So, let's look at the first vote. In the first vote on the motion Don't Trust the Promise of Artificial Intelligence, 30 percent agreed, 41 percent were against, 29 percent were undecided. Those are the first results. Now, let's look at the vote on the second vote.

20:47:24

The team -- starting with the team arguing for the motion, Don't Trust the Promise of Artificial Intelligence, first vote was 30 percent. Their second vote was 59 percent. They picked up 29 percentage points.

[applause]

That is the number to beat. The team against the motion, their first vote was 41 percent. Their second vote was 30 percent. They lost 11 percentage points. That means the team arguing the motion Don't Trust the Promise of Artificial Intelligence is declared our winner. Congratulations to them.

[applause]

Thank you from me, John Donovan and Intelligence Squared U.S. We'll see you next time.

[applause]

[end of transcript]