

Elon Musk & Jack Ma | FULL TRANSCRIPT:

EM: “Okay, great. AI, yeah. Actually, I’m told that, does AI mean love? There’s a name, AI? It sort of sounds a bit like love.

JM: Yeah, I hate the word AI called artificial intelligence. I call it Alibaba intelligence.

EM: Yeah, it might end up being true, we never know. I think generally people underestimate the capability of AI, they sort of think it’s a smart human, but it’s really much... It’s clearly much more than that. It’ll be much smarter than the smartest human. It’ll be like, can a chimpanzee really understand humans? Not really, you know. We just seem like strange aliens. They mostly just care about other chimpanzees. And this will be how it is more or less in relative... In fact, if the difference is only that small, that would be amazing. It probably is much, much greater. I mean, I really think that there should be other companies like Neuralink, essentially to create a high bandwidth interface to the brain. Because right now, we are already a sidewalk. We don’t realize we are already a sidewalk because we are so well integrated with our phones and our computers. The phone is almost like an extension of yourself. If you forget your phone, it’s like a missing limb. But the bandwidth, the communication bandwidth to the phone is very low, especially input. So in fact, input bandwidth to computers has actually gone down because of typing with two thumbs as opposed to ten fingers. It is a big reduction in bandwidth. Input bandwidth has gone up because of video and imagery. So input bandwidth is many orders of magnitude greater than output bandwidth. That at a certain point... Assuming a benign scenario with AI, we will just be too slow.

JM: I think AI is going to open a new chapter of the society, of the world that people try to understand ourselves better rather than the outside world. And it’s so difficult to predict the future. 99.99% of the predictions that human being had in the history about the future, all wrong.

EM: Including that one?

JM: Yeah. Only, you know, the 0.00% of the prediction are right. They’re right by accident.

EM: Yeah, but it’s also true that 80% of statistics are false.

JM: Yeah, so my meaning...

EM: Cold room. Come on, guys, that was a joke.

JM: I’m happy about the artificial intelligence or Alibaba intelligence that’s going to understand a human, the inside of the human better. So when people worry a lot about artificial intelligence, people should have more confidence in themselves because I think

lot of solutions we don't have today, but there will be solutions tomorrow. We don't have solutions, but the young people will have solutions. So I'm quite optimistic. And I don't think artificial intelligence is a threat. I don't think artificial intelligence is something terrible, but human beings are smart enough to learn that. And to me, artificial intelligence is just like... people who worry a lot about this today are those people I called them College Smartness. People like us, street-smart, we're never scared of that. We think it's great fun. And we want to change ourselves to embrace it.

EM: I don't know, man. That's like, famous last words. Let me tell you, AI is... You look at sort of the rate of advancement; just in general, the rate of advancement of computers is insane. A good example would be video games. If you go back 40 years ago, 50 years ago, maybe, you had Pong. That was just two rectangles in a square. Now, you've got 4D realistic real-time simulations with millions of people playing simultaneously. If you assume any rate of improvement at all, these games will be indistinguishable from reality. You will not be able to tell the difference. Either that or civilization will end. Those are the two options.

JM: Good.

EM: Yeah.

JM: Well, let's talk about something fun. I admire that you want to go on the Mars. So we go to the Mars.

EM: Yeah.

JM: Yeah. So what will the life look like on Mars? Are you both moving? What do you think about that? Actually, I'm not interested in Mars. I just came back from there, so. I'm more interested on the Earth. The things, what's going to happen in here. So why are you so curious about the Mars?

EM: Among the set of actions we can take that are likely to increase the scope and scale of consciousness, such that we are better able to understand the nature of the universe, one of those actions is to become a multi-planet species or ensure that life is multiplanetary. Not because I think something, it's not from the standpoint of it just being an escape hatch, or because I think that Earth is doomed, but there is a certain probability that is irreducible that something may happen to Earth, despite our best intentions, despite everything we try to do. There's a probability at a certain point that some either external force or some internal unforced error causes civilization to be destroyed. Or sufficiently impaired such that it can no longer extend to another planet. This is the first time in the four and a half billion year history of Earth that it's been possible to extend life beyond Earth. Before this, it was not possible. How long will this window be open? It may be open for a long time or it may be open for a short time. I think it would be wise to assume that it is open for a short

time. And then let us secure the future, secure the future of consciousness such that the light of consciousness is not extinguished. And we should try to do this as quickly as possible. That's my view.

JM: It's so difficult to secure the future of the Earth, but we can secure the future of next 100 years. I'm not the person that... I admire your courage for explore the Mars, but I admire lot of people spend efforts on improving the Earth. It's great to send women and people to the Mars but we have to care about the 7.4 billion people on the Earth. How can we make the world more sustainable? And I'm not that fond of the Mars, because I think it's easy to go to the Mars. When you go on the top of the hills, or the building. Just the one step you go to Mars, but you will never be able to come back. That's my view.

EM: That's not how it works, though.

JM: And we cannot solve all the problems for future, but we have to be responsible for the future, but we should care more about how we can enjoy better. My view is that by the artificial intelligence or AI, when human beings understand ourselves better, then we can improve the world better. Last 200 years, human being try to understand the other side world better, understand the other people better.

EM: To be clear, I'm very pro-Earth. When I say, you know, us becoming a multi-planet species or making life multi... extending life beyond Earth, expanding the scope and scale of consciousness. From a resource standpoint, I'm talking about less than 1% of Earth's resources should be dedicated to making life multiplanetary or making consciousness multiplanetary. So, you know, I think it should be like somewhere in between how much we spend on lipstick and how much we spend on healthcare. Like that, you know, for the preservation of consciousness, we should spend maybe slightly more than we spend on cosmetics. That's my, you know, and I'm Pro-Cosmetics. They're great but, you know, this probably worth spending, I don't know, some like at least half a percent of Earth's GDP on extending life to be multiplanetary. Maybe 1%, I'd say, seems like a good use of resources. And you know, you have like... more resources spent on Earth. So it's not like you know, somehow going to fundamentally impair Earth. If just 1% of Earth's resources, on that order should be enough to make life multiplanetary seems like a wise investment for the future.

JM: So what new jobs will be created because of the AI or has the change already started? What do you think? I think why we needed that many jobs.

EM: Sure.

JM: Right. My view is that the jobs... Actually, every technology revolution, people start to worry. Last 200 years, we worry about the new technology going to take away all the jobs. Actually, we made a lot of jobs. Second, because of the Industrial Revolution, job create a

lot of jobs. What I think is the next 20-30 years, human being will live much longer. The life science technology is going to make people live, probably 100-120 years. That may not be a good thing, because you got a grandfather's grandfather still working hard. But the challenge is, why should we have lot of jobs? I think people should work three days a week, four hours a day. At that time the jobs we need is make people happier, make people experience the life, enjoy the human beings. What knowledge or skills will be useful to master the future? Do you have any advice for young professionals who want to pursue a career in AI? Young professionals? I don't think we will have professionals on AI in the future. Well, I worry a lot about... people worry about jobs. But I worry about education. All the education systems, the things we teach our kids, the way we teach our kids, are mainly designed for the industry period, and I'm sure the machine will be much cleverer than human beings in the future. How can human being do better? Human being should be smarter, human being should be wiser. So how can we be human beings to be wiser or smarter? I think that we should change the way of education, change the things. Because in the past we focus a lot about, you know, remember things. Computer can remember better than you are. Want to calculator faster? Computer can calculate much faster. We want to run faster? Computer can run much faster than you are. So human beings should have confidence by being more creative, more constructive. So, how can we teach our kids to be more creative and constructive? And I think this is the key of the education.

EM: Yeah, I would say try and learn as much as possible that allows you to predict the future or make the future. So, the saying is the best way to predict the future is to make it. And then assess whether what you are learning, is enabling you to predict the future with less error. Are you less wrong? We are always wrong to some degree. But can you reduce the error on your future predictions? I think that's the way to look at education. Of course, it is both creative, create the future and predict the future. So that includes art and all those other things. But close the loop on being less wrong about future.

JM: I think the best resources of the human beings or the best resources on the Earth are not the coals, not the oil, not the electricity; it's the human brains. How can we make the human brains more creative, constructive? How can we making sure that the machines are always the toys and tools of humans rather than the control? So I never in my life and especially last two years, when people talk about AI, say human beings will be controlled by machines, I never think about that. I think it's impossible. Right? It's impossible 'cause human beings, they are different. Machines are invented by human beings. And according to the science, humans can never create another animal that is smarter than humans. Especially when you have so many smart people. It's impossible to make another smart people.

EM: I very much disagree with that.

JM: Okay.

EM: Yeah.

JM: That's good.

EM: The first thing we should assume is that we are very dumb and we can definitely make things smarter than ourselves. I mean, they didn't used to be humans, right? So, our earliest civilization was very primitive. We didn't have any technology, really, we're just, like, running around, you know, try and not get eaten or just trying to survive a winter. Now, we have like heating and we grow food. This is all new stuff. So, you know, things have obviously gotten way more smarter than the past. Way smarter. So that's going to continue. We're not the last step in evolution. So the most important thing is, like I said, the most important mistake I see smart people making is assuming that they're smart.

JM: It's not technology [change of the world](#), it's the dreams behind the technology that change the world. So, my hope is that anything we can do to improve this world, to help 7.4 billion people live better and live healthier. Trust human beings and trust young people. Let's take responsibility for today, but let's not take away all the solutions for tomorrow. It's great human being make mistakes. It's great human being learn from mistakes. It's great to die.

EM: That's probably true.