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We are all cyborgs now

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Fascinating, Informative

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I would like to tell you all that you are all actually cyborgs, but not the cyborgs that you think. You're not RoboCop, and you're not Terminator, but you're cyborgs every time you look at a computer screen or use one of your cell phone devices. So what's a good definition for cyborg? Well, traditional definition is an organism "to which exogenous components have been added for the purpose of adapting to new environments." That came from a 1960 paper on space travel. Because, if you think about it, space is pretty awkward; people aren't supposed to be there. But humans are curious, and they like to add things to their bodies so they can go to the Alps one day and then become a fish in the sea the next.

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So let's look at the concept of traditional anthropology. Somebody goes to another country, says, "How fascinating these people are, how interesting their tools are, how curious their culture is." And then they write a paper, and maybe a few other anthropologists read it, and we think it's very exotic. Well, what's happening is that we've suddenly found a new species. I, as a cyborg anthropologist, have suddenly said, "Oh, wow. Now suddenly we're a new form of homo sapiens. And look at these fascinating cultures. And look at these curious rituals that everybody's doing around this technology. They're clicking on things and staring at screens."

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Now there's a reason why I study this, versus traditional anthropology. And the reason is that tool use, in the beginning, for thousands and thousands of years, everything has been a physical modification of self. It has helped us to extend our physical selves, go faster, hit things harder, and there's been a limit on that. But now what we're looking at is not an extension of the physical self, but an extension of the mental self. And because of that, we're able to travel faster, communicate differently. And the other thing that happens is that we're all carrying around little Mary Poppins technology. We can put anything we want into it, and it doesn't get heavier, and then then we can take anything out. What does the inside of your computer actually look like? Well, if you print it out, it looks like a thousand pounds of material that you're carrying around all the time. And if you actually lose that information, it means that you suddenly have this

loss in your mind, that you suddenly feel like something's missing, except you aren't able to see it, so it feels like a very strange emotion.

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The other thing that happens is you have a second self. Whether you like it or not, you're starting to show up online, and people are interacting with your second self when you're not there. And so you have to be careful about leaving your front line open, which is basically your Facebook wall, so that people don't write on it in the middle of the night -- because it's very much the equivalent. And suddenly we have to start to maintain our second self. You have to present yourself in digital life in a similar way that you would in your analog life. So, in the same way that you wake up, take a shower and get dressed, you have to learn to do that for your digital self. And the problem is that a lot of people now, especially adolescents, have to go through two adolescencies. They have to go through their primary one, that's already awkward, and then they go through their second self's adolescence. And that's even more awkward because there's an actual history of what they've gone through online. And anybody coming in new to technology, is an adolescent online right now. And so it's very awkward, and it's very difficult for them to do those things.

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So when I was little, my dad would sit me down at night and say, "I'm going to teach you about time and space in the future." And I said, "Great." And he said one day, "What's the shortest distance between two points?" And I said, "Well, that's a straight line. You told me that yesterday. I thought I was very clever." He said, "No, no, no. Here's a better way." He took a piece of paper, drew A and B on one side and the other and folded them together so where A and B touched. And he said, "That is the shortest distance between two points." And I said, "Dad, dad, dad, how do you do that?" He said, "Well, you just bend time and space, it takes an awful lot of energy, and that's just how you do it." And I said, "I want to do that." And he said, "Well, okay." And so, when I went to sleep for the next 10 or 20 years, I was thinking at night, "I want to be the first person to create a wormhole, to make things accelerate faster. And I want to make a time machine." I was always sending messages to my future self using tape recorders.

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But then what I realized when I went to college is that technology doesn't just get adopted because it works; it gets adopted because people use it and it's made for humans. So I started studying anthropology. And when I was writing my thesis on cell phones, I realized that everyone was carrying

around wormholes in their pocket. They weren't physically transporting themselves, they were mentally transporting themselves. They would click on a button, and they would be connected as A to B immediately. And I thought, "Oh, wow. I found it. This is great."

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So over time, time and space have compressed because of this. You can stand on one side of the world, whisper something and be heard on the other. One of the other ideas that comes around is that you have a different type of time on every single device that you use. Every single browser tab gives you a different type of time. And because of that, you start to dig around for your external memories -- where did you leave them? So now we're all these paleontologists that are digging for things that we've lost on our external brains that we're carrying around in our pockets. And that incites a sort of panic architecture. Oh no, where's this thing? We're all "I Love Lucy" on a great assembly line of information, and we can't keep up.

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And so what happens is, when we bring all that into the social space, we end up checking our phones all the time. So we have this thing called ambient intimacy. It's not that we're always connected to everybody, but at anytime we can connect to anyone we want. And if you were able to print out everybody in your cell phone, the room would be very crowded. These are the people that you have access to right now, in general -- all of these people, all of your friends and family that you can connect to.

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And so there are some psychological effects that happen with this. One I'm really worried about is that people aren't taking time for mental reflection anymore, and that they aren't slowing down and stopping, being around all those people in the room all the time that are trying to compete for their attention on the simultaneous time interfaces, paleontology and panic architecture. They're not just sitting there. And really, when you have no external input, that is a time when there is a creation of self, when you can do long-term planning, when you can try and figure out who you really are. And then, once you do that, you can figure out how to present your second self in a legitimate way, instead of just dealing with everything as it comes in -- and oh, I have to do this, and I have to do this, and I have to do this. And so this is very important. I'm really worried that, especially kids today, they're not going to be dealing with this down time, that they have an instantaneous button-clicking culture, and that everything comes to them, and that they become very

excited about it and very addicted to it.

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So if you think about it, the world hasn't stopped either. It has its own external prosthetic devices, and these devices are helping us all to communicate and interact with each other. But when you actually visualize it, all the connections that we're doing right now -- this is an image of the mapping of the Internet -- it doesn't look technological; it actually looks very organic. This is the first time in the entire history of humanity that we've connected in this way. And it's not that machines are taking over; it's that they're helping us to be more human, helping us to connect with each other.

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The most successful technology gets out of the way and helps us live our lives. And really, it ends up being more human than technology, because we're co-creating each other all the time. And so this is the important point that I like to study: that things are beautiful, that it's still a human connection; it's just done in a different way. We're just increasing our humanness and our ability to connect with each other, regardless of geography. So that's why I study cyborg anthropology.

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Thank you.

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(Applause)