

“Change Leadership: A Call for Courageous Action” with Dr. Jane Goodall | Video Playback

[Video] It's been an amazing journey. This life of mine. This planet has filled me with the wonder of all living things, great and small. We cannot ignore this Earth that surrounds us. That feeds us. Shelters us. Replenishes our bodies and our souls, and stretches our imaginations. Where animals, plants, air, water, all care for us. We are all interconnected. People, animals, our environment. When nature suffers, we suffer. And when nature flourishes, we all flourish. I do believe in the possibility of a world where we can live in harmony with nature, but only if every one of us does our part to make that world a reality. So that when you look back over your journey, your life, you can truly say, “I did make a difference.”

BRAD: Good morning, everyone. Good afternoon, or evening, or middle of the night to some of you. And welcome to the National Center for Women in IT's – which we call NCWIT – Conversations for Change series. In fact, this is our special encore presentation event today entitled, “Change Leadership: Call for Courageous Action with Dr. Jane Goodall.” I can't think of a better time to be having this conversation. First, I want to recognize and thank our many NCWIT sponsors and collaborators who are making this event possible. And of course, the NCWIT production team who is even now this very second working to make this a wonderful experience for all of us. And especially our CEO and Co-founder, Lucy Sanders, who envisioned this event. I am blessed to work with an amazing team.

During the talk today, I encourage you, the listening audience,

to post your thoughts, questions, and comments on the Q&A board – as we go, don't wait for the end – using the Zoom icon at the bottom of your screen. We will be monitoring this. We'll try to get to as many of those as we can.

Now for some introductions. Beginning with myself. My name is Dr. Brad McLain and I am a Senior Social Scientist at NCWIT and the Director of Corporate Research. I study identity development and the nature of transformative experiences. I am also very fortunate to have worked for many years with Dr. Goodall and the many wonderful change agents who surround her at JGI. You're going to meet some of them today. "JGI" is the Jane Goodall Institute, by the way.

And, of course, the introduction that really matters, and it is hard to keep short, but I'll do my best: Jane herself. First, here I would like to issue a warning to you about a great risk you are taking. As I'm a social scientist that studies risk, let me describe the risk you've put yourself in – by interacting with Jane Goodall, you risk changing your life. If you are not prepared for this, please disconnect now. Trust me on this, and many of us here on the call, we have and continue to be changed by our "Jane encounters". Why? Because we believe in the vision at the heart of Jane's message that everyone can make a difference. That together we can change our world, and there are reasons for hope.

So today, I have the great pleasure of introducing the world's most recognized scientist and the most dedicated defender of animal rights in the history of history. This extraordinary woman is living an extraordinary life. Jane celebrates over 60 years of research at Gombe in Africa. With this research and her shocking discoveries into the lives of primates, Jane has transformed the science of Anthropology and Animal Behavior forever. She challenged the world's beliefs about what it means

to be human in the process, showing that we are far more connected to our animal cousins and the natural world than we ever thought before. But she did not stop there. Since the mid 1980s, Jane has become the world's foremost champion of conservation and tireless advocate for animals, their habitats, the people who live near those habitats, which is all of the people, and the rights of all living things to exist. Jane travels over 300 days out of the year – but not right now – spreading her message of hope and activism all over the world. She is a U.N. Peace Messenger. She has written lots and lots of books. She has appeared in lots and lots of films and television shows. She has won lots and lots of awards. And she is the founder of Roots and Shoots, which you are going to hear more about in a few minutes. And here she is today to talk with us, Dr. Jane Goodall. We'll have her unmute, and video is on. Jane, welcome and how are you? Where are you? And what gets you up in the morning?

JANE: Okay. Well, first of all, I'm going to test you, Brad. I'm going to give you a greeting, a distance greeting. A very special one. We are far apart. Probably everybody listening is all separated, so this is a greeting over distance. I am asking you to reply, in kind, as I once taught you. So listen carefully.

[making a ape noise]

BRAD: [replying in an ape noise] Did I do it right?

JANE: Pretty good. That's me, Jane, and you, Brad.

BRAD: I didn't know where I was Brad or Mick Jagger there for a second.

JANE: So, what gets me up in the morning? The amount, the pressure of work. And, you know, like everybody else, I've been

grounded because of the COVID-19 pandemic. I was actually getting into the car, my luggage was in the boot on the way to the airport. I was at home here. This is the house where I grew up as a child. And I'm here with my sister and her family. And she ran out into the drive and she said, "Jane, no, no. Get out of the car. You are not to go, they've cancelled the meeting." So I was on my way to Brussels to give a talk in the U.N. Building, and that very morning they closed it. And then after that, you know, the situation got worse and we decided, regretfully, to cancel the other tours I had in Europe and then in the U.S. and Canada because the venues were closing down and it was getting a bit scary. So, you know, at first I was really kind of frustrated and angry that I couldn't travel, as usual. But then I thought well that's not helpful. And so with my wonderful JGI team, we worked out how do we create a virtual Jane. The virtual Jane who is talking to you now, as I am, is far, far busier than even on these nonstop tours. I've never been as busy, I've never been as exhausted, and I get up in the morning thinking: oh, goodness gracious me, another day. But I better get up because otherwise I won't get through the list of things I have on my plate today. So that's it.

BRAD: We're reaching you in the evening, is that correct?

JANE: Yes, it's 6 o'clock. And by the way, I've just had a very big complaint from right down here beside me from Mr. H, who many people will know saying, "Please introduce me. I'm important too." So here is Mr. H saying "hello". You know him, Brad, well. I think many people who are listening –watching– will have met Mr. H. Anybody who has seen a photograph of me at work has probably seen Mr. H. So, there we are. He's now happy.

BRAD: Mr. H actually was an orphan at my house for a little while until you came to rescue him. But, before we get too far into our conversation about change today, I would like to turn

to a serious note here. I would like to state that all of us here at NCWIT, the larger community, and especially Black communities are deeply affected by what's happening right now in the United States amid the protest against police violence and the murder of Black people, Breonna Taylor, Ahmaud Arbery, George Floyd, and so many others. Jane, you've no doubt been seeing what's happening. And I wanted to ask you, since our topic today is Change Leadership, what is your perspective on what is happening in the world today?

JANE: Well, my perspective is that this is about something that has been a major, major problem my entire life. It is about discrimination. It's about discrimination by one nation against another, by one people, one race against another, by men against women. Discrimination is part of the warp and woof of our society. The African Americans, you know, the Indian people, all around the world, the indigenous people have been so terribly discriminated against. And so, the right of people in democracies for peaceful demonstration is really important. So those people in the leadership roles can see the number of people who care and who want change. And the people who lead these peaceful demonstrations are to be hugely congratulated because, with the suffragettes, for example, that's how women first got a voice in the UK.

BRAD: Yeah. That's kind of what I wanted to ask you about. We've been struggling with this for decades, if not hundreds of years. It seems so hard for us to overcome racism. You, 80-plus-year life time, have seen the curve of change and lack of change more than most of the people listening today. Why do you think the problem is so persistent? What does it say about what kinds of solutions we need to be part of if we want to be change leaders ourselves? Here I'm thinking a lot, by the way about Roots and Shoots, as a perfect example of a program that you founded, with children, that's designed for making positive change in the

world.

JANE: Yes, well, if you want me to talk about Roots and Shoots now. I think that comes later but basically, it is a program that I began because I met so many young people who had lost hope, who said we'd compromised the future, which we have, and there was nothing they could do about it. So Roots and Shoots, basically is about listening to the voices of young people. It is empowering them to take action. And so youth groups around the world, in 65 countries now, are actually taking action and making change. We're training young people who can be leaders, leaders in academia, and leaders in all of the different walks of life that people end up in.

BRAD: Yes.

JANE: You know, I mean, gosh, think how long it took to end slavery. It hasn't even ended yet. So there's something wrong with us, isn't there? I think instilling it into young people when they get together as youth, they don't see the difference in the color of the skin or anything like that, they just get on when they are very small. Then something changes. It is all about education. So Roots and Shoots is about that.

BRAD: The thing I like about Roots and Shoots, having been involved in it for so many years itself, is that it tells children that you don't have to wait until you grow up to make a difference. You can make a difference now. The problems we're facing against racism today, it doesn't seem to me like persistence alone is the solution. It's starting younger. It's empowering the youth that they can make a positive difference. Do you think, what besides persistence, is called for in the time? To make change. We have some momentum now.

JANE: Well, I think it's education and understanding. Because I mean if you think of Israel and Palestine, the Israelis were

taught that the Palestinians were cockroaches. And could be stamped under foot. So when you have people teaching this and when you have these far right people teaching people untruths about people of other race, then this whole cycle is perpetrated. So hopefully what's going on now, maybe we finally come to adulthood in our racial discrimination. Maybe this can lead to change. Like the whole COVID-19 epidemic, pandemic is pushing people to want to have to live in a different way. To create a new world, and maybe this discrimination can be part of that new world.

BRAD: I couldn't agree with you more. The idea that our children are all watching as we deal with these challenges, as change leaders, is very powerful. Inviting them in to make a difference with us, and so many of the protesters are young people, is encouraging. I think this theme will be threaded through the rest of our discussion today.

In the context of COVID, for a moment, let's talk about the pandemic's larger effects. From your perspective, what do you think the COVID epidemic is showing us about who we are as a world culture? What is it showing us about ourselves, our relationships with each other, good or bad, and our relationships with the natural world? What are your reflections on COVID so far?

JANE: Well, the sad thing is that it's our fault that we have been suffering, and many people suffering terribly. Either risking or losing their lives, losing loved ones, losing jobs, destruction of the economy. All of these things. But we brought it upon ourselves, and there have been people studying these viruses and other pathogens who have predicted this. Not the particular new disease, COVID-19, but a pandemic of this sort. It is all because of our disrespect of the natural world and the animals with whom we're supposed to share the planet. So we cut

down forests, we force animals in closer contact with each other, we force animals out of their home into closer contact with humans. Offering an opportunity for an animal who hosts a particular virus or bacteria, that virus or bacteria can hop over into a human and start, maybe start a new disease. And then we always, our attitude to animals is so terrible. You know, they are thinking, feeling, sentient beings. And we hunt them, we kill them, we eat them, we traffic them, we send them to different countries. We send them to the Asian wildlife meat markets, where many different species who would never normally have contact with each other, there is a hodgepodge of meltdown, they are making it a wonderful environment over these forests and bacteria to jump, jump, jump, and then suddenly one bacteria, one virus jumps from an animal into a person. And this particular COVID virus is very contagious. And so from that one person, it has spread around the world. It is just that we didn't listen. We could have prevented this. But we continued to disrespect nature and the animals and to put our economic development ahead of protection of the environment.

BRAD: It sounds to me as someone who works in the business of creating inclusive human cultures that we have created a situation where we've "othered" all of the other animals. And we are animals as well, as you and I have talked about many times. We are animals on the planet as well. We've "othered" them and become "species centric". This seems to be, as you say, a predictable outgrowth of that kind of attitude. What's the alternative attitude that would provide balance and safeties against these kinds of epidemics?

JANE: Well, we have to try to and emerge from the pandemic with a new understanding, with a determination to create a better, more harmonious relationship with the natural world, with the animal with whom we share it. We have to learn, and somehow persuade our leaders in business and government, and here's the

rub, but somehow they need to be persuaded that it is not always the bottom line, the short term economic benefit that's more important than protecting the environment. It looks as though these leaders don't care two hoots about their grandchildren and their future or all future generations. Who don't care about the health of the planet. They only care about what they are striving for right now. The next election, or, you know, their wealth or whatever it happens to be. So that's the hard part. Don't you think there must be millions of people from the big cities, who for the first time they've had in their lives, they've had the luxury of breathing clean air, looking up into the night skies, and seeing stars bright instead of through a haze of pollution? Or maybe not at all because the pollution is so bad. They won't want to go back to the old way of doing things. But sadly, the leaders in business and the government in so many places are just dying to get back to business as usual. Which is a disaster.

BRAD: And we discuss many times, it seems like we've confused money with wealth. The things that you've mentioned of clear air and stars of the sky, the real wealth of our lives, is being confused for the short term gains.

I wanted to ask you another question about what's happening during the COVID pandemic. We're all using Zoom and Google Hangouts or Meetups and all of the video calls because we're sheltering in place. It has got me thinking about faces. The way we communicate. We're not looking at each other's elbows on these screens, we're looking at each other's faces and primates and chimpanzees, as you studied, so important the expressions on their faces. Can you speak a little bit about how important our faces are for connecting to each other? Primates alike?

JANE: Well, the most important communication for the chimpanzees is actually the body language, we might call it. The postures

and the gestures. And the chimpanzee's postures and gestures of communication are just about the same as ours. And it is interesting when you talk about faces. We have eyes with a white sclerotic, which means that they stand out more. The chimpanzee is brown. It needs to be studied. Because clearly there are many, many different facial expressions that the chimpanzees have. They couldn't do a Zoom, because to do a Zoom, you need to be able to speak and talk. That's really what I believe is the biggest difference between us, chimps, and other animals. Is this ability to use words. I can tell you, Brad, about things you don't know about. You can tell me about things we don't know about. Together we can tell everybody listening about things maybe they don't know about. And they could tell us. And I think that's what has triggered the explosive development of our intellect. And it is the explosive development of our intellect that is allowing us now to talk in the extraordinary, technological way.

BRAD: Yes. Yes. They couldn't hold a daily troops status briefing under the canopy on Zoom tomorrow if they wanted to.

JANE: I think they couldn't. But you know it has just been discovered that rats and mice can detect the facial expressions of other rats and mice with whom they are caged with. And that's kind of fascinating. I wouldn't have predicted it.

BRAD: On a slightly more serious note, so many people are hurting. So many people are hurting alone in social isolation. I know you've studied social isolation with the chimpanzees. Whether it be a dethroned alpha male or another animal who had been othered by the troop. What are the effects of social isolation on primates? And how do we deal with it in a healthy way that might help us now?

JANE: You know, the really severe effects of social isolation

come when individuals are taken away from their social group. There have been all these terrible studies about the effects of being caged alone. Some of the chimpanzees we rescue into our sanctuaries have been in really bad zoos alone for a long time. And they show signs, the same depression that we show, the same neurons in the brain are affected. And sometimes it is so bad that they basically can never again interact properly with others of their kind. They are, you know, mentally damaged by isolation when they are young. It is known that in humans, you know, solitary confinement in prison is one of the worst things that you can inflict on people. So we're doing it to so many animals, taking them away, confining them by themselves, damaging their prospect for any decent future life.

BRAD: Yes. What do you think can translate to this? As people are watching you today from months now of social isolation and being alone. Are there coping mechanisms and ways that primates, you know, can expect hardship but also overcome it? We are starting to emerge right now, right? From social isolation, whether that's a good idea or not, based on what the health officials are telling us, we are starting to come out. We've missed each other. Even people that we didn't think we liked so much earlier, we've missed each other. We're social animals. We want to come back together. What do you think, the primates you've studied, in chimpanzees in the wild and in confinement, what have they taught us about how to cope with the social isolation?

JANE: Well, you mentioned earlier alpha males who have been ostracized. They really work hard to get back in society. Sometimes they make a mistake and come in when the replacement alpha is there and then they are attacked again and driven out again. But the smart ones they start off, they just quietly meet separate from any others, a female and they groom together. This contact is tremendously important to them. And it is not only

isolation that damages a young chimpanzee, it is when they are orphaned and they lose their mothers. So even if they are adopted by a sibling, an older sibling, they still showed signs of deep, deep depression because they haven't got that nurturing, constantly present, older individual to care for them. And, of course, this is the same with human beings. And that's what first attracted the people who first became interested in what I was doing in Africa. Weren't the ethologists, no no, not at all, they didn't really like what I was doing because I was challenging a lot of their deeply held assumptions that, we humans were the only ones with personality, mind, and feeling. And I was taught there was a difference in kind. The people who were absolutely fascinated with it were the child psychologists like Bulbi and Rene Spitz. They and I had long conversations.

BRAD: Yes. Yes. And I want to talk about that in just a second. But I have one more COVID question for you. And I've been wondering about this myself for a while. What do you think the COVID experience so far is teaching us as a society, or not teaching us, about how we will deal with other looming threats that we all face together? Great analogy is we're all facing the same storm but we're in different boats. Not the same for all of us. That's true for COVID, it's true for climate change, habitat destruction, species extinction, human dignity and equity as we're seeing now with the protests. How is our cooperative problem solving capacity looking to you today?

JANE: Well, on two levels. First of all, one thing it's done which is good, is it has brought people together as communities. They've been finding ways to help each other, to cheer each other up. You think of the Italians on their balconies singing opera to each other and this sort of thing. That's brought out something good. But at the same time, the, it's, I don't know, I mean...

BRAD: There are not encouraging signs out there as well. We have some real problems.

JANE: Yes. Well, the problem is for me, why haven't the leaders, we've proved that together we can get together around the globe and most countries are fighting in the same sort of way to prevent the spread of this disease. We can do it. But why haven't we done it for climate change? Why have the leaders consistently denied climate change or ignored it and not met their requirements and the goals they set for themselves about the reduction of emissions? Because again, short term economic gain. And when it is a disease and people are actually dying, then people have to rise to the challenge. Even though some people didn't want to. Some people decided that it wasn't a big threat after all. So if we could, you know, all of the different things that you mention, they are all interconnected. You can't solve one without the other. And one of the really pressing issues that we have to address other than reducing our own, those of us in affluent societies, reducing our environmental footprint, living with less. But we've got to alleviate poverty, because if you are really poor, you are going to destroy the last trees to try and grow food, fish the last fish to try to feed your family, buy the cheapest junk food in the city because you can't afford to make those ethical choices of how is the food grown? Did it harm the environment? Is it cheap because of child slave labor? Did it lead to animal suffering like in the intensive farms? So we've got to alleviate poverty, we've got to reduce our own environmental footprint. And we have to address something which is politically insensitive. So rather than talk about human population growth, I like to talk about voluntary population optimization. There are 7.2 billion of us now. Already in some places, we're running out of the finite natural resources of the planet, quicker than nature can replenish them. And 2050 it is estimated there will be 9.7 billion people.

What's going to happen? I can't answer that question. But we can't go on saying it is politically insensitive to discuss. We have to remember that one child in an affluent society will use up many, many, many more times natural resources than that same child living in poverty.

BRAD: Yeah. The focus on poverty is so interrelated. And of course, most of the affluent people in the world are White. Most of the people in poverty are Non-White. And so I think what you are saying is we need to learn to take care of each other, in order to take care of the other challenges and climate change and habitats and the natural world that we're a part of.

JANE: Yeah.

BRAD: I would like to ask you, you are such a role model for change, change leadership, and you have a remarkable personal story about it. Now, for those of our listening audience who don't know, NCWIT, the National Center for Women in IT is all about making change in tech culture. That's the computing companies and education systems that are shaping our world today, where innovations are happening. How can we make that more inclusive? How can we accommodate and raise up the participation, the influential participation, the meaningful participation of non majority members? And your story has a resonant tone with this. You, of course, have a well known story of change leadership in your life. It seems though you've been swimming against the stream, almost from day one when you dreamed of going to Africa. Almost since the day you were born. Do you feel that way about your own own journey? That you have been swimming against the stream? Or, are you still feeling that way?

JANE: Well, I, you know, the first thing is, I was born loving animals. It was when I was 10 and read Dr. Dolittle and Tarzan,

that I decided I am going to grow up and go to Africa, and live with animals, wild animals and write books about them. Well for one thing, World War II was raging. For another, we didn't have any money in my family. My father was off in the army and I was just a girl, a mere girl. Everybody laughed at me. "How will you get to Africa? Dream about something you can achieve." Except my mother. And I come back again to the importance of mothers. And she said if you really want to do something like this, probably thinking it was crazy, but still it was what I wanted to do, and she supported me, and said I would have to work awfully hard and take advantage of every opportunity, but if I didn't give up, I might find a way. So I went on dreaming, and when I left school, there was no money for university. I could have easily gone, but there wasn't any money. So I had to get a job as a secretary just to, you know, get some money in. Then came the letter from a school friend inviting me to Kenya: opportunity. I had to work as a waitress around the corner from the house to save up enough money. I got to Africa, and there I was told if you care about animals, you should meet Dr. Louis Leakey, famous paleontologist. So I went to see him at the museum, and how lucky is this? First of all, he'd been looking, he says, for ten years for somebody to go and study chimpanzees. He didn't tell that straight away. I went to see him, and two days, two days before I went to see him, his longtime secretary had suddenly quit and he needed a secretary. You see how things fit in? There I was. That gave him an opportunity to see how much I knew about animals because I read everything. And you have to realize when you talk about technology, when I grew up, there wasn't any television even. We had two channels on what we called the wireless, you know, the radio. There were no computers. Nothing like that. So it was books, books, books, books. I read everything. Anyhow, he was impressed by what I knew and gave me the opportunity to go off and study the chimpanzees. And he picked me, because I hadn't been to university. He said he

wanted somebody whose mind was uncluttered by the very reductionist thinking of ethologists at the time, which I've already mentioned, and he thought women might be more patient and therefore, make better observers. And so, it was just so lucky. So off I went into the unknown world. I had no competition. There weren't even any men studying chimpanzees. There never had been. George Schaller spent a year with gorillas, and that was it. You know, it was magic really. My dream came true.

BRAD: And it is poignant that when you made the discovery that chimpanzees fashion and use tools, apparently Louis Leakey sent you a telegram, "Now we must redefine tool, redefine man, or accept chimpanzees as human." And overnight, you became the woman who redefined man. You've been carrying that with you ever since.

JANE: Redefined – man had been defined as man the tool maker. That was it. So of course, when this first hit the press, the international press, this new discovery, it was all the scientists were very stuffy about it. "Why should we believe her. She hadn't been to college. She was just a girl. She's only got famous because she's got nice legs," and you know, it was, but everybody says well, "Weren't you very hurt by that?" Actually, I wasn't. I didn't actually care. I never wanted to be a scientist. I wanted to learn about the chimpanzees. Louis Leakey had faith in me. The *Geographic* came in at this point and they wanted the stories and the articles and documentaries. So for me it sort of rolled over my head.

BRAD: Yes. Yes.

JANE: Lucky I had nice legs, I mean, but I did. So you've seen the movie "Jane."

They were pretty nice, weren't there?

BRAD: I have to agree with you there, yes. I'm going to take a drink here. You always embarrass me at some point. That's not the same drink that I have. Hold on, I have one of those too. Cheers to you.

You had a big change in your life. I'm a scientist who studies identity change. And you transformed yourself from celebrity scientist to conservation activist almost overnight. You ushered in a new phase of your life. A new lifestyle. And then I wanted to read to you, my favorite poet, David Whyte, has said, quote, "When you appear in a new epoch in your life, you don't know yourself. You meet yourself as a stranger." Close quote. Can you describe for us, Jane, what compelled you to that transformation, and how you learned to become a changed leader? Perhaps meeting yourself as a stranger there in the middle of your life as you made this transition?

JANE: Well, actually, you know, I didn't meet myself as a stranger. I don't think anything changed except my understanding of what was going on. Either I hadn't understood before, or I hadn't wanted to. Maybe I buried my head in the sand. I don't know. But at this big conference in 1986, bringing the chimp researchers together, because there were others by then. And it was meant to be about learning about chimp behavior differing in different environments. We had a session on conditions in some captive situations. And seeing our closest relatives who can live 60 years in medical research laboratories in 5 foot by 5 foot cages with bars all around, bars underneath and, and bars on the top. It was you know. Isolated. It was shocking to me. I couldn't sleep. But we also had a session on conservation. And while of course I knew there was some deforestation, I had no idea of the extent of it. I went to that conference, by then I had my PhD, and I planned on having this amazing time at Gombe out in the rainforest learning about the interconnection of all living things, spending time with the chimpanzees. We're still

learning about them by the way, 60 years later. It is our 60th anniversary. And I left as an activist. People say how did you make that choice? I didn't. I call it my Damascus moment, like St. Paul on the road to Damascus. Something changed. They say it was an epileptic fit perhaps. I didn't have an epileptic fit. I just knew when I left that I had to do something. But I don't think anything changed. I had always loved animals. I always wanted to make their lives better.

BRAD: Please go on, yes.

JANE: No, so, I didn't know what to do, but I had to force myself into those labs. That was one of the worst things I've ever had to do. I must see it with my own eyes so I can talk about it from my heart. It's been a long road, but finally chimpanzees in medical research are in sanctuaries or waiting for the money to move them. But Africa, well, I just got enough money to visit the seven different range countries. And that's where, this is another topic so I'll stop, but that's where I learned, not only about the problems faced by the chimpanzees with the habitat destruction and the trapping and the bushmeat, but also about the problems faced by so many of the African people.

BRAD: You did make a big change from a scientist, a naturalist who was studying chimpanzee behavior as a change leader trying to convince other people to change their hearts and minds towards animals; whether they were medical researchers or people living close to the habitat. And now you spend most of your life leading the Jane Goodall Institute. 19 or 20 offices around the world, many programs from conservation science to education. Roots and Shoots which we're about to talk about, a global youth leadership program. 10,000 groups in over 100 countries; it's huge. You've conjured this. All of these wonderful examples of change leadership. There are a lot of change leaders listening

right now in the world of technology. From your perspective, how does the work of leading other people to change themselves present a unique challenge? What kind of courage does it demand of you?

JANE: Well, you know I read this before, courage. People say I was brave to go into the forest. I wasn't brave, I was living my dream. Was I showing courage? The courage was, it was courageous to go into those medical research labs, that I agree. I really had to screw myself up. But changing the hearts and minds of people, to me there's no point in confronting them, especially as a woman. There was no point my confronting the medical researchers in the labs or the politicians or business people, whoever, because I don't believe you can create change by arguing. People immediately becomes defensive, they are not really listening anymore. I think change must come from within. So my goal has always been to reach the heart, not to argue with the mind. Although you have to have the facts there to argue with the mind if necessary. But how do you reach the heart? Telling stories. That's been my modus operandi and it's worked so often. People, they change because they hear some of the stories of the suffering or some of the stories of what it is like in the wild or some of the stories of the result of certain actions. You leave them and you don't even know that you've changed them until maybe sometime later. You do.

BRAD: They don't even know themselves. Meaning making after sharing narratives is a big part of change, changing hearts. Speaking of stories, I wonder if we might hear some stories. NCWIT's broader mission is to increase women's meaningful, influential participation in computing. It turns out the Jane Goodall Institute is heavily involved in technology to do its work as well. I would like to invite JGI's Vice President of Conservation Science, Dr. Lilian Pintea, to share with us a little bit about how he's using technology and JGI's using

technology, in his research. And then Jane, maybe you can say a few things after we hear from Lilian.

Lilian, if you could unmute and video yourself in. Welcome to the conversation!

Lilian: Thank you, Brad. Hi, Jane.

JANE: Hello, Lilian.

Lilian: Thank you for this opportunity to talk briefly about our science work. Let me share my screen. Can you? And um, I hope you can see it.

JANE: Yes. We can.

Lilian: Wonderful. So, indeed the Jane Goodall Institute is bringing cutting edge science and innovative technologies to local communities, such as these maps of high resolution satellite imagery from NASA as tools for a community-driven approach to conservation. It also includes Roots and Shoots. This includes women, elders, it includes youth because they have different perspectives to the shared environment. The goal is to empower them to record their traditional knowledge and values and bring it all together on one map and see the connections between what their livelihood needs are, including health with health of forest, wildlife, water, and the larger environment. It is about empowering them to make a difference like this in deforestation. And we know that it is working, that there are potential benefits for chimps and other wildlife and for people's livelihoods. For example, I can just show you – you can probably see here some bee hives in this village forest reserves, which is forested by the local communities and now it is used for medicines and mushrooms and harvesting honey. Yes, for us, science and technology are the tools to empower the local communities to achieve change in their lives and through

that, make positive changes to our whole entire global environment. Thanks.

BRAD: Thank you, Lilian. Jane, wouldn't it have been nice to have the tech available back in the '60s, I imagine?

JANE: Um. No, I don't think so. I think my approach with a pencil and paper was absolutely what was needed back then. You know, gradually, of course as the technology becomes available, although I'm not into it, but I understand it. And I understand its importance. But what you just saw from Lilian about this involvement of the community, that is precisely what – you know, when I was going to Africa to find out what I could do to help, and realizing the poverty of so many of the people living in and around chimp habitat, lack of good health, education, degradation of the land, and flying over Gombe and seeing what had been part of the tropical rainforest extending right to the west coast of Africa. And in 1990, it was a tiny island of isolated forest surrounded by completely bare hills, more people living there than the land could support and too poor to buy food from elsewhere. So that's where this program that Lilian was talking about, that's how it began. Right in the beginning, having helped them restore fertility to the overused farmland, and introduce better health and education, women, girls became a very key focus; finding scholarships to keep girls in school during and after puberty. It's been shown all around the world that as women's education improves, family size tends to drop. So, here we are back again to voluntary population optimization and it's working. I mean, not as fast as we might like, but it is working.

BRAD: Yes. What Lilian says reminds me that the use of technology in the ways that you are using it, Lilian, really empower the local people to participate, almost citizen science projects and the youth especially. The technology in our pockets

on these devices is more powerful than we've ever had before to make the kinds of changes.

Now I would like to make a pivot to Roots and Shoots which, of course, is my favorite program at the Jane Goodall Institute. No offense, Lilian. I've worked on it for many years. This is an education program aimed at empowering young people to create campaigns to benefit people, animals, and the environment and their local communities. But even more than that, I like to think of it as an identity development program, because really, it helps kids generate a sense of self as compassionate change leaders who can make a difference in the world today. Jane, how did this all happen?

JANE: It happened because when I was traveling around the world trying to raise money and awareness, because as our programs in Africa grew, you know, I met so many young people who seemed to have lost hope. And you hear that we haven't inherited this planet from our ancestors, we've borrowed it from our children. And we haven't been borrowing our future. We've been stealing it. We're still stealing today. Was it too late? They told me there was nothing they could do. I said, yes, there is. So, Roots and Shoots began with the main message: every one of us makes an impact on the planet every single day. And we get a choice or, unless we're living in object poverty, we have a choice as to what kind of impact that we want to make or we decide to make. And then it was about, because of this interrelatedness, we decided – 12 students and I at the beginning in Dar es Salaam High School, that we would, each group, and we thought about groups forming, clubs, would choose three projects to make the world better: one would help people, one would help animals, one would help the environment. Because we're all interconnected. And as the program began to grow and take in first of all, you know, well, it is now kindergarten, university, and everything in between. But once young people

understand the problems and they are empowered to take action, it is unbelievable what they are doing. But the other thing that's so fascinating, it wasn't built in at the beginning. But we now have developed a culture of inclusiveness. And so when a young person who mayb has been discriminated against because of the color of their skin, what have you, when they join Roots and Shoots, so many have said to me, "well we've found our family." So, breaking down the barriers that we build between people, different nations, different languages, different cultures, different religions, and that's so important now.

BRAD: Yes. Also now we have an entire generation of kids who have grown into adults. And the idea of Roots and Shoots Alumni which we've been working on for so long that this is now a multigenerational task. I would like to invite Kamilah Martin, who is our Vice President of Jane Goodall's Roots and Shoots USA Program to join the conversation and talk to us –maybe specifically because we are a techy audience, to some extent here at NCWIT– how Roots and Shoots is using tech right now, especially in the time of COVID, so that we can continue helping these kids make a difference while we go. Kamilah, welcome to the conversation.

KAMILAH: Thank you, Brad. Hi, Jane. Hi, everyone. That's a great question, Brad, and I think the first thing I would say is that, in the U.S. we've had to use technology for Roots and Shoots for a very, very long time. We're a small team here in the States and, you know, we're responsible for tens of thousands of members sprinkled all over the country. So, being able to utilize the platforms that are out there, the technological resources that we have at our disposal was really the only way we were going to be able to sustain this important work.

Pivoting in the context of COVID, I think in the midst of a global pandemic and stay-at-home orders and just the collective,

societal consciousness and awakenings that have been happening lately around racial injustice, the fire inside of people that want to do something hasn't gone away just because we're forced to stay at home. So what, you know, we've really been able to do was to capitalize on the resource that we had at hand. We created a lot of online resources where people were clamoring. Educators and schools. We have Roots and Shoots groups in schools and they just, they wanted access to ways to implement this continuation of this philosophy, if you will, that they were doing inside of their classroom but with an online kind of perspective and shift. We've had a lot of young people who have taken the reins on their own to use technology for their projects. We've had young people who have designed care packages for frontline workers and used the RootsandShoots.org online platform to get their community members involved and to share the work that they are doing on social media. Social media is another thing that wasn't around during some of our previous pandemics or 9/11, or any other big times that we've had in our country where people wanted to mobilize. It is the easiest way that we found that young people are communicating and a way that they can take one message and get it out to millions of people at one time. It's been really fascinating and exciting, quite honestly, to see how what's going on in the world has really amplified young people's desire and passion to continue to want to make a difference. People that might not have even considered it, because they have the time, because they are feeling something inside of them that they want to have some sort of mark in this moment in history. You know, seeing how they've utilized technology has just been fascinating and hopeful.

BRAD: Kamilah and Jane, both of you, do you think some of the changes in the use of online tech for Roots and Shoot change makers will persist in good ways after the COVID pandemic has subsided to some extent?

KAMILAH: Jane, do you want to jump in? I can jump in.

JANE: I'll just say yes because we were already using it before. We were using citizen science for mapping and so on. And so now, all of the pre-preparation for young people to use such technology has been, you know, developed because of the pandemic and because of shutdowns. Yes, it will continue and grow afterwards. I'm quite sure that it will. Wouldn't you agree, Kamilah?

KAMILAH: Absolutely. I'm glad you actually mentioned the specific resources. Mapping is a big part of a lot of the projects here. Using the relationships that we have with EZRI and some of the lessons that we've learned with Lilian and his work and the conservation science work that's going on on the ground in Africa. I think a part of it – both you, Brad and Jane, spoke about this earlier – the education around the opportunities and what's available. People are having a greater desire, I think, to become educated on, you know, what do we have at our disposal to do different kinds of work? And so I think people just becoming familiar with some of these tools that are offered through Roots and Shoots and JGI, it enhances their life to the point where it becomes just so ingrained and something they want to continue using. Brad, I don't think it's going anywhere.

BRAD: Kamilah, it is so nice to see you. Thank you so much for your contribution today. I look forward to the next time we meet in person.

Aspirations in Computing is the largest community of young women in computing supporting each other, and like Roots and Shoots has now developed an alumnus of people who have gone from childhood into young adulthood in computing. And we have a couple of questions from Aspirations in Computing members for

you, Jane. We would like to roll the first one now.

CHRISTINA: Hi, Dr. Goodall. My name is Christina Lee and I'm a rising high school senior at Phillips Academy. I'm also a 2020 NCWIT Aspirations National Honorable Mention and Massachusetts Affiliate Winner. As a 17-year-old, I'm a member of Generation Z. We're young, but we have the passion, ideas, and will to create meaningful change in the world. However, we're often overlooked due to our young age and we're sometimes discouraged by our lack of resources and experience. Do you have any advice for us as the change makers of now and in the future?

JANE: Well, my advice for you is the same as my mother gave to me: if there's something you want to do, then you've got to work hard, take advantage of opportunity, and don't give up. The main thing is don't give up. That's what Winston Churchill said to us in World War II when we were in danger of being overrun by Hitler. Just don't give up. The key message for any young person is, if there's something you want to do, then make sure you really do it. Is this touching your heart? Is it your passion? If it is, then dive in and don't give up. And the other thing is, you may not reach your goal straight away. You may have to go into a roundabout way like I did. Don't give up. Even if you end up doing something else, you can still help the environment. You can still use all of the technology and communicate with people and search for a future you might, perhaps, want.

BRAD: Thank you, Jane. And I want to let everyone know that we're going into the last five minutes – seven minutes of the broadcast, so now is a great time to post any Q&A that you haven't posted yet. Here's one that just came through: "I love your message about hope. Thank you for sharing that. What do you tell yourself to keep your hope alive?" I expect that means hope for the future, hope for the change, hope for a better world.

JANE: Hope for a better world, well, my main reason for hope is the young people. All these hundreds of thousands of Roots and Shoots and the alumni all around the world. Everywhere I go, I'm not going anywhere now, but I go online, so to speak. Everywhere there are young people who are changing the world and who are dying to tell Dr. Jane what they are doing. And there's this extraordinary intellect that we have, and the way that we're using technology now is just one example of that intellect. And the bizarre thing is that this most intellectual creature is destroying our planet. Our only home. We know now there's nowhere else we can go. And so the young people, hopefully, will help us change that scenario of destruction into one of reconciliation with nature and each other.

And then there's the resilience of nature, places we've utterly destroyed can once again support life. Lilian, you know, he showed a picture where the hills around the village were bare. Now trees have sprung up all around Gombe. Chimpanzees have more forest than they had in 1990. The isolated communities can once again communicate and prevent too much inbreeding. So, you know, and then finally the indomitable human spirit. The people who tackle what seems impossible, but they don't give up. People who are suffering from tremendous social and physical disabilities. They don't give up. They inspire people around them. When we have that inspiration from the people out there and all of the stories, we can't give up. We all have to go on fighting. We all have to get together. We have to create a better world for our great, great grandchildren.

BRAD: Seems like I know somebody like that – wait a minute, it's you! An inspirational figure. By the way, for all of us who want to be inspirational figures, for Roots and Shoots, for young people, is there professional development? Somebody was asking on the chat: "Is there a professional development for mentors for Roots and Shoots to get involved with the youth campaigns?"

JANE: Well, it's different in different countries, Brad. Yes, there are definitely programs and some of them are online where young people can be mentored either online or, you know, individually. Because we are, you know, when we talk about creating young leaders, and we talk about education, we must realize it is not everybody who is suitable or wants an academic qualification. People want to do other things. And we have to support them too. I think that's desperately important, that people who perhaps want to be a farmer or people who want to be a plumber. We must support them because what they do is just as important. We need everybody to keep the world going. And there's a danger sometimes of this academic superiority. If you don't get your degree then you are no good. That's so untrue. In fact, some of the top tech people illustrate that don't they? Really well?

BRAD: Absolutely. It is an academic arrogance, as I like to call it, and it is not just unhelpful. It is destructive. We have time for one more video question before some closing remarks. So, I'm going to ask Edie, to show that one.

PIA: Hi, my name is Pia and I recently graduated from the University of Texas at Austin. In the Fall I'm going to be pursuing a PhD at Rutgers University in New York. Of people who earn PhDs, Black women are ten times as likely as White women to receive PhDs. Only 3.5% of PhDs are earned by Brown women. I'm passionate about challenging racial and gender disparities in STEM, but I've noticed that often, the work for equality gets relegated to women of color, specifically to Black women. I was wondering what your observations in racism and science have been, and how you think we can create change within the culture of these scientific communities. Specifically, what tools do you use to communicate the importance of racial equality to galvanize that change?

JANE: I simply would say that the proof of the pudding is in the eating. Lead by example. Just work hard. If this is what you want, if you want to get an academic qualification to move into one of these areas of science, then work hard, get there. Prove that you can do it, prove that you are excellent at it, and, you know, it is changing. In my lifetime I've seen so much change. Women are now allowed into a world that used to be exclusive to men. It began after World War II, because women had to be pulled into, you know, working in the factories which before they haven't been able to do. So there has been this huge change. But because of the theme of the whole thing, I'd love to end with a story told to me by a member of an indigenous tribe somewhere in Latin America and she said to me, "We think of our tribe as like an eagle. One wing is male. The other wing is female. Only when the two wings are equal will we fly true."

BRAD: Thank you, Jane. Thank you to JGI, all of the contributors to our conversation in front of the camera and behind the camera. This is our last "Conversation for Change" in this series. But, if you are attentive and desiring, please accept this invitation, a call to action. Now more than ever, the world needs you to be involved. So join us, NCWIT, as we roll out more programs and initiatives and research to improve computing equity and inclusive cultures. And the Jane Goodall Institute, all of the things you learned about today. Join us. Join us both in supporting us and getting involved and making the world a better place for everyone. Jane, thank you. Goodbye. And goodbye to the listening audience.

JANE: Goodbye.

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