

The Future of Work podcast is a weekly show where Jacob has in-depth conversations with senior level executives, business leaders, and bestselling authors around the world on the future of work and the future in general. Topics cover everything from AI and automation to the gig economy to big data to the future of learning and everything in between. Each episode explores a new topic and features a special guest.

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Jacob: Hello everyone, welcome to another episode of The Future of Work podcast. My guest today is Douglas Rushkoff, professor of media theory and digital economics at The City University of New York in Queens College. He's also named as one of the world's 10 most influential intellectuals by MIT, and he's the author of 20 books including a brand new book called Team Human. So Douglas, thank you for joining me.

Douglas: Hey, thanks for having me.

Jacob: So, you have a pretty cool background. You've done all sorts of fascinating things, written 20 books. I'm really curious, before we jump into your new book, how did you get involved with all this stuff? I've seen some of your talks where you're talking about going to race. How did you get involved with media theory and digital economics and Team Human?

Douglas: I mean, maybe it's a convoluted story, I was a theater person originally and I went to Princeton, and California Institute of the Arts, and American Film Institute. I was a pretty successful up-and-coming theater director, I was doing some film stuff and I was getting really increasingly frustrated with the sort of the narrative style with how formulaic so much of Hollywood was becoming. I saw movies and theater as a place to break open people's minds, and instead it was getting really stagnant and stiff and predictable.

Douglas: I was getting really tired of the audience just kind of sitting in their seats and doing nothing, and then multimedia came along. The late '80s, the early '90s, the beginning of the net and CD-ROMs, and interactive art. The internet, and the networking, and interactivity seemed to me to be the kind of the new participatory thing, and it would lead to not just participatory arts experiences but participatory economics, participatory politics. That this was an invitation for people to get their hands into the programming of everything in our world.

Douglas: I wrote some of the first books about here's this thing coming. I wrote a book called Cyberia, C-Y-B-E-R-I-A and it was in ... So I was the guy who went on the Larry King show to explain what cyberspace is, and you know to go on CNN and explain that this thing called the internet is coming. You're gonna have email on your desk some day and let all the newscasters laugh at me. And then wait a few years until it all turned out to be right.

Douglas: I started writing these books, I wrote the first book on viral media called Media Virus where I kind of coined the term. After a bunch of those, I became kind of the go-to guy for what's happening to our society, what's happening to culture. And this is really before the net was a business story. Then AOL decides to go buy Time Warner and it was this big internet story because it meant, "Oh my gosh, the internet has come of age now." That they're gonna go buy a real company.

Douglas: The New York Times came to me and said, "Well, you write the op-ed on what this means." So I wrote an op-ed and said, "Yeah, it means AOL is cashing in its chips, so the dot-com boom is over and they're using their inflated stock to buy a real company like Time Warner, this is the beginning of the end." And they said, "We can't print this. You're crazy, what are you saying? All of our business people say this is the best thing ever, and this is gonna be the best, most successful company and synergies are gonna happen."

Douglas: Of course, it didn't turn out to be the case. And really since that time, what we've been looking at is how the kind of the vast cultural and social promise of the internet has been surrendered to these really extractive, dehumanizing, utilitarian platform empires like Amazon and Google and Facebook, and not really contributing to our betterment. So I wrote all these books along the way, whether they were about looking for what are the roots of the economic problem that leads to these kind of runaway growth unicorns, or what are the leanings? It was just really what I'm writing about now and you know, where does all of our, all the beliefs that the only thing we can do is use these technologies to compete or enhance our utility value.

Douglas: Where did we start to believe that human beings are the problem and technology is the solution, and how can we kind of reacquaint ourselves with what it means to be human in this very strange alienating digital age.

Jacob: Which has never been more important now more than ever and I love that you have a theater background. I actually also have a theater background. Not from Princeton unfortunately, but I did like extra work and I was really into theater when I was younger. I suppose now doing, speaking, maybe some of that stuff's still comes into play, but it didn't make it ...

Douglas: Definitely, definitely, whenever, I'm sure for you too, whenever I'm on there. If you do a talk for a thousand people, a 45-minute talk where you really walk them through the valley of death and then revive them at the end. What does that, but theater, it's just nonfiction theater but you're still bringing them through an experience in order to hopefully open their minds to something. And it's definitely the theater training, an understanding where your audience is at and being able to speak to them and with them rather than just do some canned technical performance is I definitely owe that to theater.

Jacob: Oh, yeah. No, I think now that you mentioned that it's probably the case, you mentioned something earlier, you said that you were laughed at and ridiculed. Which I quickly picked up on because I'm very curious. Do you actually remember a couple times when people just said, this Douglas guy is nuts? He's out of his mind, he's just crazy.

Douglas: Yeah, my first real book called Cyberia got bought by Bantam Doubleday Dell, which was in 666 Broadway, the famous cushner owned building actually. They bought that book in 1990, I wrote it in 1991 and they canceled it because they thought the internet would be over by 1992 when the book was supposed to come out.

Jacob: Oh my God.

Douglas: So then in 1993, it started to look like the internet was really going to happen and then Harper Collins went and bought the book and put it out in 1994, when it was still way too early. But that was the book that was explaining what hypertext is and how it's kind of like this choose your own adventure and how you're going to go from thing to thing.

Douglas: I was looking at all of the, sort of the culturally consonant thing. So I made it a book, not just about the internet, but about rave culture and the psychedelic revival and fantasy role playing games and new kinds of movies and virtual reality. So I was really looking at saying, "Look, there's something coming." It seems to be originating on the west coast and it seems to be associated with all of these new, this weird almost new religion or spiritual sensibility that we're going to be designing reality or moving into some kind of a new world together.

Douglas: I mean, so it went from being thought of as totally crazy to being crazy, but interesting enough to publish as a book to then just being, "Oh, this is what's actually happening."

Jacob: I love that you wrote it in 1990 and then it came out four years later, like officially, that's funny.

Douglas: Well, that's the way it goes.

Jacob: Yeah, sometimes it happens like that, what are you going to do? And now here we are, years later and you have a brand new book out called Team Human and I'm really curious what is happening in the world today that made you write this book?

Douglas: I mean, a few things. The original impulse to write this book was when I was on a panel with one of the transhumanists, and these are the folks that believe that computer intelligence is about to surpass human intelligence and he was saying-

Jacob: [crosstalk] folks.

Douglas: Right or even he himself and he was arguing that once that happens, human beings should simply kind of pass the torch to technology that we should accept that our computers are our evolutionary successors and we should step off the stage and maybe computers or robots will keep us around as long as they need us to service them or program them or keep the lights on or dig for the oil they need to run their batteries or whatever. But after that, we should accept our extinction with humility.

Jacob: And naturally you agreed and everything was quiet and peaceful.

Douglas: Yeah. I said, no, you're crazy. What are you talking about? Human beings. And I said, "Yeah, tech is great, then they're really smart and they can do all these calculations," but human beings are special in our own way. We're weird and quirky, we can inhabit the liminal spaces between things, we can embrace ambiguity and sustain ambivalence over long periods of time we're artistic and creative, we have higher values that we should be kept around. And he said, "Oh, Rushkoff, you just say that because you're a human." As if it was some act of Hubris. And that's when I said, "No, fine, I'm on Team Human. I accept your challenge."

Douglas: And that's when I decided I wanted to write a book in the digital age that helped us really identify and retrieve what makes human beings special, so that we don't accept this incorrect Silicon Valley premise that human beings are the problem and technology is the solution. I don't see that at all.

Douglas: I'm not saying that technology is the problem, but that we have to retrieve and embed human values into the digital infrastructure, into the digital landscape or we risk leaving them behind at our great peril.

Jacob: So when you say that you don't subscribe to that belief that you know, humans are the problem, where are you seeing this? Is this on like in media, in news? Just lots of debates that you're seeing that kind of like blame humans for everything and save the technology is always the solution.

Douglas: In part, yeah. I mean, is this techno solution is the vibe that you see coming from Elon Musk or Mark Zuckerberg or the Google people. I mean, partly it's knowing the actual history and intentions that Google really is trying to build a brain for Ray Kurzweil, that they really are focused, really primarily on artificial intelligence and where that's going.

Douglas: Partly, it's the way I see it trickle down into the values of companies around the world even, where if you have human beings as part of your business plan then it's believed that you can't scale. When you go to try to raise money for your company in Silicon Valley, if you have employees, that's a problem because it means that you can't scale infinitely. What do you mean? You need human beings to actually answer the phone? You need human beings to look at this and make an evaluation on?

Douglas: No, no, no, no. If you can't find an algorithm to do it, then I'm not going to invest in your company. So the whole idea, unless you're creating a company for Aqua Hires, just for that you have enough developers for someone else to buy it for your developers. The idea of any business plan is to be so automated as to have no humans, no humans at all.

Douglas: Finally, I guess it's the way that digital technology has led us to look at human beings purely in terms of their utility value. How much productivity can be extracted from you? How much data can be extracted? If we don't have a metric for what it is that we're getting from you, then it doesn't really have any value at all.

Douglas: I feel like that leaves behind what's essentially valuable about a human being. It's the eye contact, it's the touch, it's the rapport that you build with another person. These

things are really devalued, and in some ways in an internet world, they're really hard to come by. You do a Skype call with somebody and you can't really see if their pupils are getting larger or smaller as you're speaking. You can't see if they're breathing with you, you can't catch the micro motions of their eyes or their head.

Douglas: So you can't establish rapport, you don't sync up, your mirror neurons don't fire. You don't get the flush of oxytocin through your bloodstream. And you wonder, well, that person agreed with me. They said yes to everything, but why don't I feel that they really agreed with me? Why don't I feel filled by that? And then you don't blame the technology. Your brain doesn't know how to blame the tech, you blame the other person. You think that other person who must have been lying, they didn't really mean it because I don't really feel it.

Douglas: So we end up trusting each other less and trusting the tools more, and I think we disconnect ourselves from sometimes mysterious things that we don't understand from all the X factors that make life worth living and people worth connecting to.

Jacob: It's funny, I did a video a couple of years ago and I said the one thing that technology can take away from us is our ability to be human. And it's exactly a lot of this stuff that you mentioned, it's like the very basic human stuff that we all take for granted that many of us don't even think about anymore. We just think about it as sort of, I don't know, it's just ...

Douglas: Right, or we do talk about it and I can already hear some listeners, they're going, "Oh, listen to these Pinko Romantic, weirdos." It's like, "Really? Is that Pinko weird romantic to have fun to enjoy?" I mean, what's it all for? You know what, wait a minute, you're right. You know, it may not show up on the quarterly balance sheet or tomorrow's share price. You know, it may not, but wait a minute, we get the sort of the cart and the horse reversed.

Douglas: And that's what I'm trying to unpack for people is that we started to live, really a long time ago, 13, 1400s at the beginning of the industrial age, we started to live by certain values of utility and repetitiveness and you can go back to the stuff that you talk about, scientific management and all the stopwatch calculations that they would do on workers. It brought us to a certain point that kind of peaked in the Eisenhower era in the 1950s on the assembly line and Taylorism and all that.

Douglas: It reached a point, but now if we reinforce kind of industrial age values of efficiency and maximizing output and productivity and volume. If we do that in a digital age, when we have these supercharged turbo steroid engines to do it with, we're going to extract ourselves out of existence. We're there, we've got the speeds, we got the feeds. Now it's time to bring force, you know, the stuff that we left behind in this little bargain.

Jacob: A lot of people always use Uber and Airbnb and all these companies as an example, Instagram, but only had a handful of employees. It's sold for billion dollars and people say, "You know, Uber is the largest transportation company, but they don't own any cars. And Airbnb is the largest hotel company, but they don't own any property."

Jacob: I guess, how do you balance this idea of efficiency and like this idea of, "Okay, it's cool that Uber and Airbnb have created this massive organization." But how do you balance that with this human side? Like efficiency with being human and making sure that you, like you said when you have a startup, a lot of people say, "Oh, you got to automate. You got to have all these efficiencies. You don't need humans to do that." So that's good for the business, but it's bad for the people. So where's the balance between the two?

Douglas: Well, I mean, the balance really, it's funny. The balance comes from all the way back from Adam Smith really, when he was talking about the sort of earliest rules of corporatism and how to have balance in an economy. And he said that there's three factors of production, there's land, there's labor and there's capital, and all three of those are necessary and really are equal partners in the value equation.

Douglas: When we see an Uber, and Uber values the capital but doesn't value the land in the labor, the drivers don't own Uber, they work for Uber. The towns where Uber is operating that have their own, or trying to have their own codes, a municipal codes about how taxis work and how driving works. They're not brought into the discussion. If anything, Uber spends a lot of money on ads to make the local governments look like the bad guy for trying to demand that handicap people have access to the vehicles, or that their cab companies participate in paying taxes for a better roads and things like that.

Douglas: So, partly it has to do with that these apps are not really owned by the people who are most impacted by them, they're own by people with cash. And that shouldn't be the only one with a seat at the table. And this is what Adam Smith's was so concerned about, we ended up with foreign corporations extracting value from people in places. This is what the British East India company did to the American colonies and it's why they had the Boston tea party.

Douglas: I feel like we're in a similar situation now where there's unhappy drivers and unhappy towns and happy investors and you can't do it like that. And it gets to the point where the investor makes so much money, you get a Mark Zuckerberg finally saying, "Well, I guess I'm going to give back 99% of my money." It's too late for that dude. You took too much to begin with and you created this really imbalanced ecosystem.

Douglas: So efficiency is fine, creating these great networks that can help, but if you have people involved in it, if you have places involved in it, an intervening a little bit on their own behalf, then sometimes the value of short term immediate efficiency turns out not to be the only value you want your company to have.

Jacob: You mentioned in your book, and in a couple of talks that you've given, this is like a big theme for you is that, being human and teen human is a team sport. So what do you mean by that?

Douglas: Well, I feel like we've bought into a distortion of Darwin. You know, that works really well with a certain version of free market capitalism that says that this is a competition, we're all in competition against one another. When you're all in competition and the

person with the best thing ends up winning, and that's not natural, you can't use nature as your argument that we're all in a battle for survival of the fittest individual. If you really want to read Darwin and see what he was talking about, what he was saying was that, no, that evolution is really the story of more and more advanced forms of collaboration that different species learn how to collaborate, whether it's ants collaborating on a hill or you know, cows collaborating to stay in a herd that the cow that leaves the herd is the one that gets picked off by the lions who are hunting in a pack together.

Douglas: If human beings are the most advanced species, it's not because we're the strongest things, monkey, not even a gorilla. A monkey can beat up my purse at chimp, can beat that person up probably pretty easily. That doesn't mean we're not more evolved. What allowed us to win if you will, or to become a dominant was our ability to communicate with one another to hunt together. So if humans are the most advanced species, it's because we have the most advanced means of collaborating with one another.

Douglas: By buying this notion that we're competing against each other in some zero, some game, well that's what's led us to this weird place that we're in now. This very atomized, hyper individualized society, and where I take comfort though is that, it feels to me anyway, that each major innovation that we come up with, whether it was language or text or radio or TV or the internet, each of these things offers the possibility for increased connection, for increased coordination and collaboration and socializing with one another.

Douglas: They end up usually getting turned into their opposite, social media, which really was originally intended as a way to help people connect with one another, has become the most atomizing alienating fracturing force in society today. But it didn't have to, it only did because we were trying to target market people, because it was easier to turn people into extreme versions of themselves so that algorithms can cherry pick sort of categorization of people. But I believe that if we restore some of our social mechanisms rather than just letting them be easy exploits for algorithms, we can sort of rebuild the solidarity, the rapport, the cohesiveness, the social mechanisms that give us more resilience as people and can even, you know, help us kind of survive some of the coming turmoil.

Jacob: Do you think organizations are partially responsible for this? When I say organizations, I don't mean like the Facebook or the Twitter is the actual technologies that enable this, but I mean just inside of large organizations like Pepsi or an IBM or any of these major companies that so many people work for because their cultures are usually very individualistic, lots of bureaucracies and policies, lots of emphasis on technology, is part of what's fueling this coming from the business world?

Douglas: Yeah, I mean, it is to some extent. Part of the story that everybody tells about the difference between when our dads, our grandfathers got a job at a company, the idea was you were going to stay there for your whole life and you believed in your company and you had stock in your own company. It felt, you know, kind of like a family and the company had your pension, they had your back. It was a different thing. Now, whether

the only reason they did that was because we had a good economy that was expanding in postwar America. That has left to be that we could argue, but it was a different ethos.

Douglas: I think under the guise of personal responsibility, we took away the pension and give everyone 401k plan, which of course also lets everyone hire their own financial advisor. So it's great for the finance industry because instead of one guy managing the pension fund of thousand workers, you've got a thousand financial advisors doing it individually. And everyone making less, all the workers getting less retirement funds as a result.

Douglas: But it engendered a sense of right, I am an individual here working in this company, and in some ways they felt like management felt like they were kind of cutting the fat off the thing that we were working more efficiently. Again, applying this sort of an extreme version of Taylorism of Taylor management theory on large companies to make everything super-efficient.

Douglas: But when there's no play in the steering wheel at all, you end up in a very unforgiving institution and one that's not very resilient. It can't really deal with little shifts and things that happen. And I understand that, you know, play in the wheel is anathema to a lot of organizational theorist.

Douglas: It's like, "Wait a minute, it's just not exact, we should be down to .001%," this almost this we work techno utopian vision of the future of the workplace where we're going to make it. So every desk is only the size it needs to be and then we're going to measure everybody's footsteps and how far you have to walk to the coffee maker and the number of interactions that you have on the way from here to there.

Douglas: We're going to maximize the opportunity for this and reduce the opportunity for that, that it's so programmed, it's so predictable that you ended up, oddly enough, losing ingenuity, you end up losing innovation because everything has been programmed into the environment. And that's where in some sense a messy, less designed environment, less scheduled day can open people up. But people have to love the place they're working, they have to care. You need to have, if you want any kind of an organization approaching democracy. You've got to have a mission, you've got to have people care about what is it that we're really doing here.

Douglas: If you're at Pepsi, you really have to understand, what are we doing? Are we selling sugar water to a diabetic obese nation? Is that what we're doing? What is our mission? What are we coming to work to do? If I'm coming to work to get my paycheck, then I'm already in an adversarial relationship to the organization and there's almost nothing good that can come of it.

Jacob: It almost sounds like we're turning ourselves into algorithms.

Douglas: We are, we are. It is funny only the problem with that is we're not as good at being algorithms as algorithms are, and if we look at ourselves like that, if I'm just going to do

mortgage actuarialism or whatever one of those jobs, and I'm really just the algorithm, then an algorithm will replace me and do it better.

Jacob: Yeah, I couldn't agree more. So it's part of, and I like what you said it, because it seems like we're overly designing things a little bit and especially there's this whole area of like people analytics and data science, which I'm sure you're familiar with, which is definitely gaining a lot of steam inside of companies, measuring everything and engagement scores and happiness and literally, like you said, measuring footsteps and the path that you may take to get to the coffee machine, and I suspect I know the answer to this. But do you think we're relying too much on technology?

Douglas: I think we're relying on technology in the wrong ways, and so I could see us using technology more and more and better. It's just, we are using it in a way to kind of smooth over the rough edges of humans to somehow reduce the unpredictability because I guess we falsely believe that the better people fit into their statistical profiles the more money that we're going to make that, the better we can define targets and have people reach those targets the better our company has done.

Douglas: I remember, you do all these talks too, the best is when you sit there for an hour or two before and here that people in the company and what they're talking about and let their executives go up and hear the language they use. There's all these companies where they get up and then they use that language of, "Oh and now we have our awards John Smith in Minneapolis was nine points over target." "Yay!" And everybody comes up, you know, and I'm always like, "Oh my God, these guys, they got these targets," and they put the little number up on the wall and then they're going to meet that number.

Douglas: Whatever number you put up on the wall is the number of your workers are going to meet. And that's the technological view. If we're using technology that way to get the numbers out of people and the numbers out of our company that we want, then our technologies will get those numbers. But at what cost?

Douglas: Our technology has no conscience. Our technology has no, "Oh, but I'm destroying this in order to get that," technology doesn't think like that. It's just going for the thing we told it to go for. And by the time we recognize the unintended consequences, unintended consequences that are real human worker would have a gut feeling about. They'd be even at the meeting when they're told to do the thing, they'd go, "Yeah, I can do that. But let me think for a second." That thinking for a second is the enemy of business, don't think, stop, don't think, do.

Douglas: It's that pause of reflection that we want from our humans and that our technologies don't want to do. So I'm all for using as much tech as you want, as long as you have the means for human beings to intervene and evaluate and be part of the iterative cycle of the technology as you're developing it.

Jacob: Which makes sense and I think we've seen, there was actually interesting story that was in a book from a little while ago. I'm trying to, I can't remember the name of the author unfortunately, but she was a podcast guest I think two years ago. And she wrote this

story about how a school district create an algorithm to evaluate teachers. Oh, the book was called the Weapons of Math Destruction.

Douglas: Weapons of Math Destruction. Yeah, she's great.

Jacob: What was her name? Was it Cathy O'Neil?

Douglas: I remember that. I can multi-task while you're doing it.

Jacob: I feel bad. She was a previous guest. But yeah, in that book, I don't know if you remember-

Douglas: Yeah, Cathy O'Neil. Cathy Helen O'Neil.

Jacob: Yeah. There we go. And she told the story about how the school district used an algorithm to evaluate teachers and the algorithm came up with a list of, I think it was like 200 teachers or 100 teachers and they were all fired. And then upon digging further, basically what the algorithm did is it looked at students' test scores from a previous school that they came from and compared them to the test scores of the school that they're at now.

Jacob: And if the scores dropped, the new teachers were assumed to be bad, but it turns out what they found out is that from the previous school, there was a very high incidence level of cheating, and the scores were artificially inflated, and teachers would actually erase the wrong answers and put in the right ones. And they did that so that the teachers looked like they were more effective teachers.

Douglas: Right, because they don't want to lose their job.

Jacob: Exactly, and then they went to this new school where that cheating wasn't going on and all of a sudden the scores plummeted, and the algorithm said, "Well clearly these new teachers are bad and they should be fired." And I think that's a very classic example of what happens when you don't have any of that human intervention. And it's kind of like, "Let's just align with the algorithm says."

Douglas: Yup, I mean it happens with algorithms or without, it's whenever you use, whenever you use metrics for incentives, you know, that's how you got in England when they were trying to make health costs and the health system better. They incentivized hospitals to get people into rooms faster from the emergency room. So what they started to do was they reclassified the corridors as hospital rooms and they would just move the gurneys out into the hallway and say, "Okay, now they're in rooms."

Douglas: So it can lead to real perverse outcomes, another great algorithm story is the algorithm that American judges use to decide prison sentences for convicted felons, has to do the algorithm figures out the likelihood of them getting arrested of them getting jailed again. It uses all this stuff that's supposed to be accurate to figure out based on what

this person did and who they are and their social media, what's the likelihood of them being jailed again after they're released?

Douglas: What they found out was that the algorithm wasn't measuring the likelihood of them committing a crime again, it was measuring the likelihood of them getting caught again. So what it does is really just penalize bad criminals not criminals.

Jacob: Interesting. And we also see this inside of companies in a lot of HR departments, they use algorithms to try to predict when an employee might be a potential flight risk wanting to leave the company or to predict when an employee might, or when a manager isn't performing well. They use all sorts of like heat maps and then different metrics to try to evaluate and predict these things.

Jacob: So let's say you were brought into a large company, I don't know, like a Google or one of these big companies that rely very heavily on technology. Would you just go in there and be like, "Look guys, you have things a little bit backwards here. Like would you get rid of the data science and the people analytics stuff? Would you reduce kind of the business decisions and the human decisions that are made based on these data and algorithms?"

Douglas: Well, I mean, they're not really inviting me in to do much more than give a talk, but-

Jacob: Not yet.

Douglas: If I were brought in, I would want to start by helping them figure out what is their company for, what are they really there for? What are they doing? And who are they serving. Are they serving the community where they're located or they have nothing to do with it? Are they like Apple and just basically a fortress inside ...? And God just put the walls and everything's based in word. We're a global, we're not he really here. Or are they part of the community? Are there employees thought of as beneficiaries of the company or was it an Uber thing where your employees are just both visible?

Douglas: Your employees or just these humans that are training machine learning algorithms to replace them later for no money? Is that what they are? Let's be honest, what are we doing? What is our mission? And once you have that, then you want to make whatever your real mission is the most human part, the most human driven part of the company. So is it fashion? Then you want to have designers in the middle of it. If you're a fashion company, then you want to have human designers informed by data rather than designs informed by data. You want to have because your competitive advantage is going to be your humans.

Douglas: Your competitive advantage is never going to be your data because data is a commodity, everybody's getting their data from the same places. It's like your competitive advantage is never going to be which web servers you're using because everybody's using Amazon. So once everybody's on Amazon, then what is it? Then it's your content. So you better not be deriving all of your content by algorithm or that it's going to be a problem because everyone's going to be using the same algorithms to drive their

content. So I would kind of start there and think of the sort of the creative core of the company almost have an org chart that's like a Mandalah where the center circle is your creative core, your core competency.

Douglas: What is it that you really, really, really, really do? And at Google, you know, what we really, really, really do is, you know, we developed artificial intelligence. That's what they're about. So, okay, so get down humans in there who are best at that rather than the AI's who are best at that, get your people in there and figure out how to serve them.

Douglas: And what are we building AIs for? And then, you know, maybe the company will end up having different religion than me, because they might say, "Look, really?" Our purpose is to help human consciousness migrate to a silicon. That's what we're really building is we're trying to create a shared thing. All right, that's your mission and that's your mission. But then, you know, I don't really like that mission, but I would want them to have their best people around that thing, not let that become automated and then see if the services around it becomes somewhat automated, I don't have as much of a problem with that. As long as the thing that the company's actually doing the irreplaceable thing has humans driving it.

Jacob: I saw a video that you did fairly recently and you had this great quote in there, and it was about the turing test and you said that, if we ever pass the turing test, it's not because AI became smart, it's because humans became dumb, which I loved.

Jacob: But I suspect that there is a lot more, I mean, it's kind of a cheeky fun quote, but there's also a lot behind that. So I thought maybe you can unpack that quote for a minute and explain what you meant by that.

Douglas: Well, the way algorithms really work now, the way machine learning works is it's trying to figure out and predict what it is that we will do. How to manipulate us, whether it's through kind of Freudian projections, psychotherapy or Pavlovian impulses showing us red versus blue versus sweet sounds versus our sounds. No, they're just trying everything until they find out, "Oh look, this works on them," and then the algorithms they all share it with each other. "Oh look at this works on them. They're going to click on a button if you do this."

Douglas: And it gets to the point where it's not that the algorithms are so smart, it's just that they've tried all the different things until they happen upon an exploit. By an exploit, I mean, like the same way a hacker looks for an exploit in an operating system, the algorithms look for exploits in human psychology, exploits in human social evolution.

Douglas: How can we get people to engage in reciprocal behaviors or to feel guilty about leaving us behind? So eventually you get to the point where the algorithm can make us feel like, you know, "Mommy, please don't abandon me, it's going to hurt if you leave." And it's gonna whether we know it or not, it will tug on that evolutionary heart string. So I feel like it's not that the algorithm has gotten so complicated, it's that the algorithms really are trying to get us to do their bidding by whatever means necessary.

Douglas: If you look at the way Facebook works, really all they're doing is taking our past behavior in order to lump us into statistical buckets and then predict our future behavior, and they can do that now with about 80% accuracy. They know 80% accuracy if you're going to go on a diet in the next three weeks. And if they know that they're going to start filling your newsfeed with stuff that makes you worry about your weight, that's when you're going to start getting all the ads for diet pills or, "Hey, you're looking fat today," or articles about fat people that have died from being fat or whatever it is.

Douglas: And they're not just doing that to sell you the particular goods of the marketer, they're doing that to get you to behave more true to your statistical profile, it's in Facebook's interest and the algorithms interest to get that 80% up to 90%. So they're really focused on the 20% of people who weren't really going to go on the diet. How do we get them to be true to their profile? How do we get them to do the thing that they're supposed to do? And that's kind of the danger of it.

Douglas: So we ended up less, I would argue less human, we end up less unpredictable, we end up more automated. And that surely that's the object of the game is for algorithms to get us to be more like algorithms ourselves.

Jacob: All of this you can happen because I think earlier you even mentioned that social media, and the web and all these things started, it was a way to bring people together and now it's a way to kind of divide us. It seems like if it started off with good intentions and everything was fine and wonderful, there must've been something that pushed us over to kind of the dark side.

Jacob: How did this happen without us noticing? Is it just lack of awareness? Is it just kind of, we trade convenience and the wonderful euphoric effect you get when you push the Amazon button and it shows up at your, the package shows up at your door two hours later. We just ignoring these things? Or how did all of this stuff happened?

Douglas: I mean, I guess the simplest way to understand it is too much investment money came in. I remember the day that Evan Williams was on the cover of the Wall Street Journal, the day that Twitter went public. And for anyone who doesn't know, Twitter is an application that lets you send originally 140 character text messages out to a service that other people can then see the messages.

Douglas: It was a great idea but that morning he had the number \$4.3 billion under his face, which is the amount of money he was worth after the IPO. And each of them had four billion, five billion, six billion. So here's this company you're under worth \$40, \$50 billion and I thought this guy's fucked. How is Evan William's gonna make 140 character messaging app worth not just the 40 billion that people just invested in it, but they all want 100 X return, they want to make a 100 times that, it's never going to be worth that much money.

Douglas: There's not enough 140 character messaging value. Now, at the time it was great, Twitter was earning \$2 billion a year, which is pretty good. I mean, if he called grandma and said, "Grandma, I made 140 character messaging app that makes \$2 billion a year,"

that should be a win, end of story, you did it. Yay! But when you take that much money, now you've got to find a way to pay it back, so the original service doesn't justify the valuation.

Douglas: So now they got to figure out something else, and that's when these otherwise terrific little platforms end up becoming the sort of extractive awful behemoth that they grow into. It's really easy to pay it back. So if Facebook can't make the money just kind of serving ads to people on their newsfeed, now they've got to start selling those people's data to the rest of the world. Now they've got to become the victim of foreign troll farms and electoral manipulation and whatever else because they had a pay back all this money, they just took too much money is the problem.

Douglas: And if they hadn't, they wouldn't have had to go quite into this nightmare, because the beauty of digital platforms, unlike real world real estate and all that is you actually don't have the same growth requirement as real world businesses. You could actually grow less. It's a much more sustainable business model because you do kind of need fewer people as you go, as things get automated and your algorithms replaced certain people, you can kind of coast for good long periods of time if you have an app that's just working, but there's no such thing as an app that's working because it doesn't matter whether it works for the user, it's whether it works for the shareholders, and the shareholders aren't interested in your app.

Douglas: The only product that your company really has is the shares themselves. So that's sort of what happened to all of these. Otherwise, find companies, you know, two kids in a Stanford dorm room come up with an algorithm to take down Yahoo by letting people search the internet based on other people's searches. That was a great idea, they didn't need to become this nightmare advertising company. They said at the beginning, what distinguishes Google, what's going to make us great is that we don't need advertising dollars, that we're not going to become an ad platform and that's exactly what they went and did.

Jacob: Yeah, it's crazy to think back what all these companies said their intention was versus what it actually became.

Douglas: They weren't in control because they didn't own their own companies. And that would be my real advice if you've got a company, stay private, do convertible debt, but don't do shares, stay private, don't go public. I know there's problems with private too, but you know, once you go public, you're product is your shares. You gotta understand that, you're no longer when you go public, you have literally sold your company, you sold your company. So what do you expect?

Jacob: Yeah, I totally agree. I mean, that's why Facebook and Twitter and all these other organizations are doing what they're doing, and I think you've talked about this earlier because they now have to respond to the shareholders who want to get return and you got to do in a scene that I don't have a choice pretty much.

Jacob: But what about people out there who say that all this technology is good, it's wonderful, we should be relying on more technology using more technology. Douglas is crazy, all these technologies have improved my life and everything is wonderful, I love Amazon. What do you say to those types of people who just think you're nuts with this idea of Team Human? And have there been any people out there that have said you're crazy as a result of this?

Douglas: No, actually, this is so far, the only kind of negative responses I'll get are, "Oh come on, it's too late." And there's more people who are saying, "Look, we can't worry about the team anymore, we're going to have climate change and all sorts of other problems are coming." Don't make me feel bad about leaving everyone else behind, I'm going to build my frigging bomb shelter, or I'm going to get on Elon Musk's mission to Mars. This experiment in civilization was a failure and I've just got to take care me and my family now.

Douglas: So I get that, the only way out is through or the idea that don't worry someone like an Elon Musk or Steve Jobs are someone is going to figure out the climate or is going to figure out society or start stacking people differently.

Jacob: So ignorance.

Douglas: Yeah, I'll stick my head in the sand and I'd be, "La, la, la," there's nothing wrong.

Jacob: That's pretty much what it's all about.

Douglas: I would just say, "Really, how was your day to day experience? How are you feeling about your kids, about their education? What are you doing now? Are you trying to earn enough money to insulate yourself from the world that you're creating by earning money in that way?" And if so, does that feel good? Is that the best we can do? Is earn enough money to insulate yourself from the horrors of the world?" If that's where you're at. Okay, I got you, I got it. It's a war. You're at war, build your shelter one way or another, shelter yourself from the world.

Douglas: But I don't believe it's two insanely optimistic to think that we can make the world a place that is enjoyable, that has some modicum of justice, and that you don't need to be a millionaire in order to feel safe.

Jacob: So what would you like to see happen? I mean, obviously you wrote this whole book about Team Human and let's say you were put into this amazing position of power where you were able to make some of your ideas and concepts of reality. What would you like to see happen in the world and maybe the next five years or 10 years, if you had to create this story, this vision for the future?

Douglas: What would I what?

Jacob: What would you like to see happen or what would you try to make happen?

Douglas: I'm going to have to start off really simple, but I'd like to see people recognizing the value of live human interaction. I'm concerned say in education that we're looking at time in the classroom in terms of utility value and assessment, and smart boards, and iPads and all that. I feel like kids have so much iPad and screen time and all that at home that the thing that they really need experience with is how do you engage with other people? How do you stand in front of a room and make a presentation?

Douglas: You know, how many people now, speaking is easy for you or me, you know how many people for whom, especially millennials? It's hard for them to get up in the room and actually talk. Could you imagine? I mean, it's scary for them to stand and say what they did or report their weekly thing and they can't articulate, they can't write, they can't, wow. That's scary to me. They can Snapchat, yeah, but it's like nine words or a picture. That's concerning.

Douglas: So I would love for us to remember that public education began not as an extension of job training. Public education really began as compensation for workers who were going into coal mines all day, they wanted them to have the human dignity to be able to read a novel at night or to participate in representative democracy and read the paper. The fact that we now go to corporations to ask them, "Well, what do you need from our students so we can train them to learn Excel spreadsheets or whatever it is that you want?" That was, yeah, we took one typing class, you took shop, you took a few trade oriented classes but learning was about learning.

Douglas: If we can at least look at school as this precious sacred time, where our kids are exposed to ideas and critical thinking and the beauty of learning as an ideal, again, this might sound crazy to some people. But I think that would be really valuable and valuable to our companies as well because you'll end up with critical thinkers and people who can do more cool stuff. And then if you apply that, that idea of doing things for their own sake, being with other people and seeing what new thoughts and feelings and what new kinds of things, what novelty emerges?

Douglas: Then I think we'd be in a better place. So, no, I'm not saying just turn off your machines, go away. But really except that when you're online, when you're in the digital space, even when you're just responding to your phone, you are not in the real world. You are in a world concocted by companies that are looking to extract time, value and data from you, by any means necessary. And to addict you to technologies using the very same algorithms that are in Las Vegas slot machines.

Douglas: If you appropriate that defensive posture whenever you're engaging with this stuff, it will help you then appreciate the openness and what it's like not to be inflicted with this stuff in the real world. Try to make eye contact with people, try to connect with people, find out what they really want, look at your company and what you're doing and think about what is its actual purpose? What are we actually here to do? The purpose of a company is not to create value for shareholders.

Douglas: That's a side effect of a company, that's a benefit. The purpose of a company has got to be something else. Otherwise, why are you there? What is your life about to get these markers of monetary value? Is that really it? I mean, if so, then yeah, machines will be

better at making money than you, so you can retire and let the machines do it. If there's any other reason to be alive, other than making that number in your bank account go up, then think about what that might be and start doing it.

Jacob: Yeah, I love that advice. Before we wrap up, you had another quote that I really liked and you said, "We end up using technology to optimize human beings for the market rather than using technology to optimize it for people." And I thought maybe you could expand on that a little bit because I thought that quote was great and kind of sums up some of the things that you've been talking about.

Douglas: Well, yeah, I mean whether we're looking at the Facebook example of trying to make people more predictable or we work looking at how do we get people to move around in a company or people trying to conform their social lives to Facebook and Tinder or their professional lives to the cookie cutter algorithms of LinkedIn. We're really busy using technology to serve people up to the marketplace.

Douglas: That's what's I believe that's what's making people so unhappy. If we really want to, we know that making people anxious, making people feel alone, making people feel worried or jealous, we'll make them click. That's what we learned also in the Trump campaign, making people afraid or angry on either side, we'll get them to click and getting them to click is more important than getting them to vote intelligently or to think about any issues or to have a real discussion.

Douglas: Getting them to click is more important than them being friends with their neighbors. Getting them to click is more important than whether they see the red states or the blue states as monsters. Getting them to click is everything than great, how are we getting people, how are we using our tech to get people to do what's gonna make these few companies really rich?

Douglas: And that's a really sad application of multi-trillion dollars' worth of technology when we could be looking at how could we use technology to solve climate problems, to solve health problems, to solve economic problems, to promote economic equality, there's such oddly enough, there's such easier problems to address than the further enslavement of the human psyche to a growth-based economic architecture that was forged in the late Middle Ages by a very small group of monarchs who were looking to stop their monarchies from going bankrupt in face of a rising middle class.

Douglas: We would actually the wealth that could be unleashed by these technologies is so unimaginable to us right now, because we're still stuck in thinking about any technology as a potential stock ticker rather than as an actual wealth generator.

Jacob: Well, last kind of two questions for you to wrap up. One, I'm really interested in your outlook for the future. I guess it can be either an outlook or your hope for the future. To build on top of that, what advice would you give for people listening to this? So obviously, I'll ask you to mention your book and where people can get that, but for folks that are really bleeding in this concept of Team Human inside of their companies inside of their lives, are there any steps that they can take, anything that they can start doing

to bring more of this kind of humanity back into their lives and their organizations? So those two and then we'll wrap up.

Douglas: I mean, yeah, the easiest thing, my first advice and it's in big letters, it's the only writing on the very back of the book is find the others, you know, wherever you are find the other living people, find the other conscious humans. I mean, I remember way back in the day when I used to go to like Raves, and people get high and dance all night and then you ended up going back to work in your temp job the next day.

Douglas: And every once in a while after Rave, you'd be in the bank or in the typing pool at the law firm I worked at, at night. And you see someone else who was at that 2000 person Rave that you are at the last night. You don't even have to say anything, you just look in their eyes and there's like a, "Oh, you're one of us. I saw you there." And it was that weird feeling of like being almost like in fight club or something where you're like on that team, you're another one. Oh, there's one, there's one.

Douglas: Just that moment of recognition, I think we can have that at work and in our organization. Do you know who the other living ones are and whether they're executives or secretaries or mailroom, you know who the other living ones are. And you can start engaging with them a little differently. All those people in your life and then find the real others, find the human being inside that person who seems so different, who seems like they're on the other side.

Douglas: Find out what is the fear or trepidation or concern that's driving the behavior that's making you so crazy, that's driving what seems like such a destructive or isolating or alienating behavior in them. Figure out what that is and address that, figure out how to then engage with that person. You know, it's a slow process but it's so social, it's so revealing, it's so opening. And when you find, I mean for me, having a job is a new thing, teaching it at Queens College, CUNY is a new thing. But you know, I was doing it there first you find your allies and then find the human being in your adversary.

Douglas: Engage with them and boy does it unleash a whole lot of voltage in potential energy once they've connected with your humanity and you've connected with theirs and you really see where their frigging coming from, you go, "Oh, I get it." And boy, it changes everything. That's what I'd suggest people do.

Jacob: Be human. And hopefully you're an optimist. Are you optimistic about what the future will bring?

Douglas: I'm pretty concerned actually. I'm optimistic in the sense that I do believe humanity has the tools and wherewithal to sustain civilization moving forward and I'm excited to see how we choose to proceed.

Jacob: Yeah, I'm sure many listeners are, there's still a lot of uncertainty and a lot of craziness happening out there. Well I think that's a great way to wrap up, we've actually went to a couple of minutes over the hour and you certainly talk about more of these things in your book.

Jacob: So maybe now is a great time for you to mention, where can people go to connect with you? I know you also have a podcast called Team Human, you have a bunch of videos on YouTube, your book, anything you want to mention, please feel free to do so.

Douglas: Yeah, well, if you remember Team Human, you can type Team Human probably into any web browser and you'll come to my podcast or my book, my podcasts at teamhuman.fm, and you can hear all sorts of great conversations, free willing conversations like this one with all sorts of members of Team Human who are looking to retrieve what it means to be human in this strange time that we're in.

Douglas: And yeah, and there's a book called Team Human, you can get it at any bookstore whether you want to go to Amazon or BNN or IndieBound or Powell's or any independent bookstore in your neighborhood, I would encourage you to go there. It's on Kindle and Audio Book so you can hear me reading it in my lovely human mellifluous tones and come out, I'm going to be touring in the whole bunch of cities in America and Europe doing Team Human live events to just engage with different people about what it means to them to be human. So come on out for those. You can find out about those at rushkoff.com.

Jacob: Very cool. Well hopefully you will come out to the bay area or somewhere near me in California and I'll get a chance to come say hi in person.

Douglas: Definitely, I'll be there. I'm doing the city lights in the Commonwealth Club on January 29th and 30th.

Jacob: Oh, very cool, yeah, maybe I'll try to stop by, I know exactly where that is.

Douglas: Terrific.

Jacob: So hopefully we'll make it happen. Again, thank you so much for taking time out of your day to come share some of your ideas.

Douglas: Thank you. Thanks for all.

Jacob: Yeah, my pleasure, and thanks everyone for tuning in. My guest, again has been Douglas Rushkoff make sure to check out his brand new book called Team Human, and I will see all of you next week.