

Our discussion about the future of the workforce would not be complete without an exploration of what impact the current innovations in technology will have, specifically, artificial intelligence. Over the past three years, there have been significant innovations in big data, database architecture, and artificial intelligence, that are enabling new business models and products. In simplest terms, the innovations in artificial intelligence are equipping algorithms to make smarter decisions about tasks and problems that have, so far, been thought only to be reserved for humans. The accompanying innovations, and cheapening of hardware, that enables artificial intelligence algorithms to read and process incredibly large data sets, has motivated more entrepreneurs, and technologists, to innovate with artificial intelligence.

Many think that the implications for the workplace will hurt workers. Similar to how the Industrial Revolution displaced many workers through the creation of tech that was cheaper and overall more efficient than people. People believe that AI will replace, not just blue collar workers, but also white collar workers. However, the fact is that the impact on workers is under our control, the control of entrepreneurs, technologists, and everyday citizens, that are part of the workforce. Business owners and workers can harness AI to augment human intelligence in the workplace to creatively improve decision making instead of replacing it.

Here's Rob High, the CTO of IBM Watson, one of the primary R&D leaders in the AI space, making this exact point at the 2016 MIT Technology Conference.

If we become experts in everything, we're experts and nothing. And so the same phenomenon occurs within these cognitive systems as well. They can actually begin to get a little bit confused in how to ration-- this would be a good question. So a couple points to be made about that. That said, because each of these are distinct, we can actually set the system up based on whatever is appropriate for the application we're trying to solve for.

For the case of oncology treatment advice, the goal is actually about trying to identify the best treatment based on outcomes, based on standard of care practices and clinical expertise, based on similarity of this patient to other patients. And all those can contribute to help Watson come back with an ordered list of potential treatments. But again, we're not trying to make the decision for the human. We're not trying to think for the human.

What we're trying to do is do the research for the human, so the human can then go make the decision better. In this case the doctor. So we're not going take-- Watson doesn't make the decision about what treatment to give for the doctor. It presents the doctor a set of relevant treatments that has been rationalized based on all this other information, at a speed that a doctor could not do on their own, including finding all the literature that's relevant to support why they should believe in that treatment or not.

So what specific type of disruptions can we expect AI to cause for employers and employees? Let's take a look at what David Autor, a professor of economics at MIT, said in the Future of Work panel at the Nobel Week Dialogue of 2015. In terms of employment, as was said earlier, people have been worried for centuries about displacement of labor. And labor has been vastly displaced. In the start of the 20th century, 40% of US employment was on farms. Now it's under 2%. We had no idea what was coming. But it came. We find uses for ourselves. And that's partly because the technology augments us, it doesn't just replace us. It makes the rest of what we do more valuable.

So, you know, I can make more as an Uber driver than as a rickshaw driver, not just because I'm in a rich world, but because I have a tool that makes me able to transport people much faster and further, and more safely, and more comfortably, in a given amount of time. In many, many ways, the tools we make make our time more valuable. Because there's always some piece that we still have to supply, and because that becomes a scarce factor that raises our labor value.

So there's a challenge-- So now let me say, but let's say I'm wrong, and that we're going to be all replaced by robots. That they can do all the work we want. Is that a problem? Well, if it's a problem, it's a very unusual historical problem. Most problems, economic problems, societal problems, are problems of scarcity, of not having enough of something, enough food, enough power, enough safety, enough shelter.

In addition to changing the kinds of roles that workers can take on in the workplace, AI-based innovation can also impact social inequality, for better or worse, to be determined by how we choose to behave. For example, women and people of color are very under-represented among technology entrepreneurs that receive funding from venture capitalists for their enterprises. If venture capital investment goes towards a more diverse set of entrepreneurs, then we will see social inequality improve positively. Here's Amanda Kahlow, CEO of 6Sense, a predictive intelligence platform for marketing and sales, expanding on the current under-representation, based on her experiences.

The short answer is yes, I feel supported. But I do feel-- so I go to a lot of CEO events and sit on a panel like this. The last, I was in Hawaii just a little while ago. 250 CEOs, I was the only woman. And in enterprise tech, I'm less than 1% in this world. And it's crazy. And it doesn't feel right.

And I think it's because we're missing that confidence, and the passion to go forward, and want to dream big. Do I feel supported by the men? I think yes, I'm supported. I think pretty much, I feel very supported. Especially my male co-founders are ridiculously supportive. And actually, I think that they have more faith and confidence in me than I do myself, which is amazing.

I think I have had to, maybe, guide and teach some of my VCs and other people in the world what's important.

And it's not always just about-- I think we were talking earlier about the end goal of the business, and growing the business-- but creating a sustainable company is also about the culture and the people. And I think that what we're missing in today's workforce is putting an emphasis on that. In addition to all of the great technologies that we can do. And that's the thing that the women bring to the table.

I'm super proud of our lack of attrition rate at 6Sense. We don't have people leave, and it's because they feel supported and heard, and they can also be creative and do amazing things in the work that we're providing.

But I think it's not intentional when men aren't supporting. I was actually sitting on a plane the other day talking to a gentleman. And he asked me what I did. And I never come out and say, I'm the CEO of this company. I say I work for a software company. And I started talking about the stuff that we're doing.

And then two hours into the conversation, he's like, well, what do you do there? And he's like, are you in marketing? And I was like, no, I'm the CEO. And he got up from his seat, and he had this visceral reaction. And he didn't mean to. And then he sat down. He's like, I'm so sorry, I didn't mean to react like that. And [? he ?] didn't intend to--

[LAUGHTER]

It was just a lack of filter which we all have sometimes. When he was realizing who I was in the company-- and I wear braids and pigtails, and I don't always dress the part of something else. I always struggle with being my authentic woman self. I want to maintain that while dominating in the male world that I'm in. So I think there are levels of education that we can give others. Thank you.

Income and social inequality between genders will not improve unless we choose to make fairer decisions about who gets opportunities to create and run companies in the tech industry. If we do not actively monitor our biases, we will not be able to take advantage of this period of innovation and wealth creation towards a more equitable future.

There is also an opportunity gap among people for who gets to work within companies in the tech industry. Leila Janah, founder and CEO of Sama Group, an organization that lifts people out of poverty by enabling them to do work in the digital economy, discusses this opportunity gap, and how we can mitigate it.

Now interestingly, traditionally, in the informal sector, if you're doing, say construction work, and you go and you find your job by standing on the side of the road and waiting for someone to hire you as a labor contractor, there is no such thing as getting rewarded for good work. You might put in a wonderful 10 hour shift, but you will get no five star rating on a website. You go back to zero the next day, standing on the side of the road waiting for your

next job. So I think that technology actually brings a lot more transparency in areas like wages, and reviews, and feedback, that are very good for low income workers.

And I'll say one last thing on this, which is that, David and I were talking about this just before the panel, we so often assume that technology has some kind of morality built into it. Technology, in fact, is agnostic. It's as agnostic as roads, and waterways. It's all about what we do with technology. We can choose to inject morality into the technology we build. We can choose to build systems that enfranchise the poor. Or we can choose not to. But we're not victims of technological progress. It's not happening in a way that we can't control. At least until the singularity happens, at which point all bets are off.

[LAUGHTER]

The first is, job training needs to completely change. In the US, which is the best example I know, it's abysmal. We are still training people for jobs that are disappearing at an alarming rate. We are not training them in how to be entrepreneurial and marketing themselves. The skill that you need for 21st century jobs is marketing yourself. If Kim Kardashian can teach us anything, it's probably only that.

But interestingly, all of these new platforms require you to be able to set up a profile, to choose the right kind of a photograph that will attract customers, to send a follow up email, to have customer service skills. And you're absolutely right, that many low income people-- And just to give you an idea of how profound this is, in the US we have one of our centers which is less than a mile from the Facebook headquarters in Silicon Valley, in East Palo Alto. Which is a very poor community. And fully 25% of our incoming class for one of our trainings last year had people who had zero internet access at home, and no smartphone. A mile from the Facebook campus.

So we can talk all we want about how technology is going to make everyone's lives better, but the reality is that many people are disconnected. And if you didn't grow up having the internet at home, how can you possibly understand how to market yourself? It's not easy to be an autodidact, and to learn how to teach yourself things on YouTube, if you didn't grow up with the internet.

Advancements in technology taking place right now are incredibly exciting. And we all stand to gain from them as consumers. However, as with other periods of societal change, we, citizens and the government, have to ensure that the opportunities to launch, run, and work, in these new enterprises is made available to all members of society.