An evolutionary biologist at Purdue University named William Muir studied chickens. He was interested in productivity -- I think it's something that concerns all of us -- but it's easy to measure in chickens because you just count the eggs. (Laughter) He wanted to know what could make his chickens more productive, so he devised a beautiful experiment. Chickens live in groups, so first of all, he selected just an average flock, and he let it alone for six generations. But then he created a second group of the individually most productive chickens -- you could call them superchickens -- and he put them together in a superflock, and each generation, he selected only the most productive for breeding.

After six generations had passed, what did he find? Well, the first group, the average group, was doing just fine. They were all plump and fully feathered and egg production had increased dramatically. What about the second group? Well, all but three were dead. They'd pecked the rest to death. (Laughter) The individually productive chickens had only achieved their success by suppressing the productivity of the rest.

Now, as I've gone around the world talking about this and telling this story in all sorts of organizations and companies, people have seen the relevance almost instantly, and they come up and they say things to me like, "That superflock, that's my company." (Laughter) Or, "That's my country." Or, "That's my life."

All my life I've been told that the way we have to get ahead is to compete: get into the right school, get into the right job, get to the top, and I've really never found it very inspiring. I've started and run businesses because invention is a joy, and because working alongside brilliant, creative people is its own reward. And I've never really felt very motivated by pecking orders or by superchickens or by superstars. But for the past 50 years, we've run most organizations and some societies along the superchicken model. We've thought that success is achieved by picking the superstars, the brightest men, or occasionally women, in the room, and giving them all the resources and all the power. And the result has been just the same as in William Muir's experiment: aggression, dysfunction and waste. If the only way the most productive can be successful is by suppressing the productivity of the rest, then we badly need to find a better way to work and a richer way to live. (Applause)

So what is it that makes some groups obviously more successful and more productive than others? Well, that's the question a team at MIT took to research. They brought in hundreds of volunteers, they put them into groups, and they gave them very hard problems to solve. And what happened was exactly what you'd expect, that some groups were very much more
successful than others, but what was really interesting was that the high-achieving groups were not those where they had one or two people with spectacularly high I.Q. Nor were the most successful groups the ones that had the highest aggregate I.Q. Instead, they had three characteristics, the really successful teams. First of all, they showed high degrees of social sensitivity to each other. This is measured by something called the Reading the Mind in the Eyes Test. It’s broadly considered a test for empathy, and the groups that scored highly on this did better. Secondly, the successful groups gave roughly equal time to each other, so that no one voice dominated, but neither were there any passengers. And thirdly, the more successful groups had more women in them. (Applause) Now, was this because women typically score more highly on the Reading the Mind in the Eyes Test, so you're getting a doubling down on the empathy quotient? Or was it because they brought a more diverse perspective? We don't really know, but the striking thing about this experiment is that it showed what we know, which is some groups do better than others, but what's key to that is their social connectedness to each other.

So how does this play out in the real world? Well, it means that what happens between people really counts, because in groups that are highly attuned and sensitive to each other, ideas can flow and grow. People don't get stuck. They don't waste energy down dead ends.

An example: Arup is one of the world's most successful engineering firms, and it was commissioned to build the equestrian center for the Beijing Olympics. Now, this building had to receive two and a half thousand really highly strung thoroughbred horses that were coming off long-haul flights, highly jet-lagged, not feeling their finest. And the problem the engineer confronted was, what quantity of waste to cater for? Now, you don't get taught this in engineering school -- (Laughter) -- and it's not really the kind of thing you want to get wrong, so he could have spent months talking to vets, doing the research, tweaking the spreadsheet. Instead, he asked for help and he found someone who had designed the Jockey Club in New York. The problem was solved in less than a day. Arup believes that the culture of helpfulness is central to their success.

Now, helpfulness sounds really anemic, but it's absolutely core to successful teams, and it routinely outperforms individual intelligence. Helpfulness means I don't have to know everything, I just have to work among people who are good at getting and giving help. At SAP, they reckon that you can answer any question in 17 minutes. But there isn't a single high-tech company I've worked with that imagines for a moment that this is a technology issue, because what drives helpfulness is people getting to know each other. Now that sounds so obvious, and we think it'll just happen normally, but it doesn't. When I was running my first software company, I realized that we were getting stuck. There was a lot of friction, but not much else, and I gradually realized the brilliant, creative people that I'd hired didn't know each other. They were so focused on their own individual work, they didn't even know who they were sitting next to, and it was only when I insisted that we stop working and invest time in getting to know each other that we achieved real momentum.
Now, that was 20 years ago, and now I visit companies that have banned coffee cups at desks because they want people to hang out around the coffee machines and talk to each other. The Swedes even have a special term for this. They call it fika, which means more than a coffee break. It means collective restoration. At Idexx, a company up in Maine, they've created vegetable gardens on campus so that people from different parts of the business can work together and get to know the whole business that way. Have they all gone mad? Quite the opposite -- they've figured out that when the going gets tough, and it always will get tough if you're doing breakthrough work that really matters, what people need is social support, and they need to know who to ask for help. Companies don't have ideas; only people do. And what motivates people are the bonds and loyalty and trust they develop between each other. What matters is the mortar, not just the bricks.

Now, when you put all of this together, what you get is something called social capital. Social capital is the reliance and interdependency that builds trust. The term comes from sociologists who were studying communities that proved particularly resilient in times of stress. Social capital is what gives companies momentum, and social capital is what makes companies robust. What does this mean in practical terms? It means that time is everything, because social capital compounds with time. So teams that work together longer get better, because it takes time to develop the trust you need for real candor and openness. And time is what builds value. When Alex Pentland suggested to one company that they synchronize coffee breaks so that people would have time to talk to each other, profits went up 15 million dollars, and employee satisfaction went up 10 percent. Not a bad return on social capital, which compounds even as you spend it. Now, this isn't about chumminess, and it's no charter for slackers, because people who work this way tend to be kind of scratchy, impatient, absolutely determined to think for themselves because that's what their contribution is. Conflict is frequent because candor is safe. And that's how good ideas turn into great ideas, because no idea is born fully formed. It emerges a little bit as a child is born, kind of messy and confused, but full of possibilities. And it's only through the generous contribution, faith and challenge that they achieve their potential. And that's what social capital supports.

Now, we aren't really used to talking about this, about talent, about creativity, in this way. We're used to talking about stars. So I started to wonder, well, if we start working this way, does that mean no more stars? So I went and I sat in on the auditions at the Royal Academy of Dramatic Art in London. And what I saw there really surprised me, because the teachers weren't looking for individual pyrotechnics. They were looking for what happened between the students, because that's where the drama is. And when I talked to producers of hit albums, they said, "Oh sure, we have lots of superstars in music. It's just, they don't last very long. It's the outstanding collaborators who enjoy the long careers, because bringing out the best in others is how they found the best in themselves." And when I went to visit companies that are renowned for their ingenuity and creativity, I couldn't even see any superstars, because everybody there really mattered. And when I reflected on my own career, and the extraordinary people I've had the privilege to work with, I realized how much more we could give each other if we just stopped trying to be superchickens. (Laughter) (Applause) Once you appreciate truly how social work is, a lot of things have to change. Management by talent
contest has routinely pitted employees against each other. Now, rivalry has to be replaced by social capital. For decades, we've tried to motivate people with money, even though we've got a vast amount of research that shows that money erodes social connectedness. Now, we need to let people motivate each other. And for years, we've thought that leaders were heroic soloists who were expected, all by themselves, to solve complex problems. Now, we need to redefine leadership as an activity in which conditions are created in which everyone can do their most courageous thinking together.

We know that this works. When the Montreal Protocol called for the phasing out of CFCs, the chlorofluorocarbons implicated in the hole in the ozone layer, the risks were immense. CFCs were everywhere, and nobody knew if a substitute could be found. But one team that rose to the challenge adopted three key principles. The first was the head of engineering, Frank Maslen, said, there will be no stars in this team. We need everybody. Everybody has a valid perspective. Second, we work to one standard only: the best imaginable. And third, he told his boss, Geoff Tudhope, that he had to butt out, because he knew how disruptive power can be. Now, this didn't mean Tudhope did nothing. He gave the team air cover, and he listened to ensure that they honored their principles. And it worked: Ahead of all the other companies tackling this hard problem, this group cracked it first. And to date, the Montreal Protocol is the most successful international environmental agreement ever implemented.

There was a lot at stake then, and there's a lot at stake now, and we won't solve our problems if we expect it to be solved by a few supermen or superwomen. Now we need everybody, because it is only when we accept that everybody has value that we will liberate the energy and imagination and momentum we need to create the best beyond measure.

Thank you.