

Thank you for inviting me to be here. It's an honor to open this day.

I'd like to set up a big frame for today's discussions. So I'm going to zoom way out and talk about consciousness. Then I'll make a foundational point about data science, and a foundational point about women, and I hope to connect those dots in a way that demonstrates how much transformational potential this community holds.

First, on consciousness: Writer and teacher Eckhart Tolle talks about the evolution of life on Earth as the evolution of consciousness. The mysterious and marvelous consciousness we each experience has been billions of years in the making, from single-celled microbes to more complex multicellular organisms to plants and animals and now human beings. We humans have the remarkable capacity to affect life in a way that is altering evolution itself! Human choices and actions have had consequential and even irreversible effects on species and habitats around the globe, and with ongoing advances in AI and genetic engineering, we're developing capacities to determine what it even means to be human.

So as Eckhart Tolle says, through the human being, it's now possible to *consciously* evolve consciousness.

And I see a direct relationship between evolution and data science — in a way, hasn't evolution made us all data scientists? We somehow process astonishing amounts of inputs in any given moment, mostly unconsciously and a little consciously, to try and make sense of our world — to know something about who we are, what we're doing, and what's next.

So we could consider data science, as a discipline, as a method for consciously evolving consciousness. In data science we intentionally acquire, aggregate, analyze, and interpret vast amounts of data to try and make sense of our world — enhance our understanding of who we are, what we're doing, and what's next.

The foundational point I want to make about data science comes out of a recent conversation with my friend and teacher Orland Bishop. We were discussing AI but his insight is even more essentially true about data science: data science is about the past. By definition, every piece of data we encounter is something that has already happened, it's finished, it's in the past. Now, there is tremendous value to better understanding the past. How could we possibly make sense of our present and make choices about the future without knowing about our past? But data science is about the past.

The foundational point I want to make about women is that women are creators. I'm not saying women have an exclusive lock on creativity, but I'd say the very characteristics that comprise what we mean by "women" give us deep knowledge about what creates the conditions for thriving life. We have a special line on creation. Creation is different from iteration or innovation. It's not tied to the past, it doesn't have to build on what has come before.

So let's connect these dots: we're in a position to consciously evolve consciousness, data science is about the past, and women are creators.

To the extent we're happy with the way things are, we can continue to iterate and innovate and tinker around the edges, amplifying and accelerating the collective consciousness that has created the world as we now know it. But in the throes of multiple crises — climate justice,

racial justice, gender justice, economic justice — I think what we most need now is creation, not just innovation. As women, we're made to lead on this. If we want the future to be meaningfully different, we must first cultivate our capacity for imagination, allowing us to create a future we haven't yet seen.

And we can and must do this collectively, not only individually. Another friend and teacher, Krista Tippett, puts it this way: "For the first time, our technologies have given us the tools to think and act as a species." What will we do with that?

Because data science is rapidly expanding to virtually every area of life and work, it offers a powerful "distribution network" to infiltrate, infest, engage with consciousness across lots of communities and domains. How we approach data science will affect our collective consciousness and either nourish or impoverish our collective imagination. How can we steer its direction, its intentions, its methods to serve us best — to help create the conditions for thriving life?

I'm excited about all the ways we'll come up with to better analyze and understand the past. That's a profound contribution from data science to help shape a shared, collective consciousness. But too often our instinct is to use that understanding to predict, or worse to control, the future. I'm sure each of you can think of examples where we use data science for predictive application — from online ad matching and commerce and retail, to social and political contexts, and even healthcare, education, and the justice system.

I'd like us to deeply interrogate this tendency for forward-looking prediction. When I consider the dominant, prevailing "isms" we're reckoning with — sexism, racism, colonialism, imperialism, capitalism — I'm struck that they all reflect attempts by some to exert control over others in hopes of controlling the future. The desire to know what's next is understandable — it's comforting to think one knows, and unsettling to not know. And for those who do the controlling, it seems highly profitable. But we're now contending with the profound costs. Our quest to control the future has proven to be a fraught hubris, we're seeing its existential limits.

We're in a "species moment" as Krista Tippett would say. Most recently, the global pandemic has vividly demonstrated that uncertainty is the new certainty. So we need to exercise one of our species superpowers: adaptation. We need to adapt and prepare ourselves to relinquish our wish to control. That's a big ask. Especially in modern, western culture — in the academy, in industry, where we've long prized and practiced knowing and controlling.

My mantra since March 2020 has been, "Uncertainty is just another name for possibility."

Anyone who has raised a child or tended a garden has learned that trying to know or control doesn't create the conditions for thriving life. So what if we abandon the model where one person or group comes up with a plan that the rest of us follow, by choice or by force? And what if instead, we collaborate to co-create the future as it unfolds? To each recognize and contribute what's our gift to give, and to enable others to do the same, in a cooperative improvisation — *"thinking and acting as a species?"*

This will be a heavily contested move. We're not good at living in uncertainty, and it's very lucrative in our capitalist context to predict and control what's next. But not only does that limit the field of possibilities, it impoverishes our imagination because we only attend to

possibilities that are extrapolated from the past. We **need** imagination above all else if we wish to co-create new futures.

As a community of women in data science, I hope we provoke and inspire and support each other to exercise our species superpower of adaptation, to shift our approach from knowing to wondering. From seeing data as having the answers, to employing data to generate expansive questions.

Not only, "Why might these patterns appear?" Or, "Are there outliers, and what might they inspire us to try?"

But also, "What other possibilities can we imagine?" "What else are we capable of?"

"What would help us love each other more?"

From there we can exercise our other species superpower: creation. Let's consciously evolve consciousness to participate as cooperative improvisers with life.

Thank you.