



AI Ignition

Ignite your AI curiosity with Jeremy Jurgens

Beena Ammanath (Beena): Hi everyone. My name is Beena Ammanath, and welcome to today's episode of *AI Ignition*. I lead our Global Deloitte AI institute, and today on *AI Ignition*, we have Jeremy Jurgens. He is the managing director and head of the World Economic Forum's Center for the Fourth Industrial Revolution. His responsibilities are broad and include oversight of all industry initiatives, innovation, and technology pioneer communities; the forum's offices in China, India, and Japan; as well as the Center for Cybersecurity.

Jeremy, welcome to the show. I am so excited to have you on the show today. We've worked for several years together in your role at the World Economic Forum and, you know, across my career path. So, I am looking forward to having this conversation with you and learn more about you, the work you're doing, and the work the World Economic Forum is focused on.

Jeremy Jurgens (Jeremy): Thank you, Beena. It's great to be here today.

Beena: Thank you. So I'd love to start by asking you about your career journey. Can you share a little bit more about how you got to where you are today?

Jeremy: Yeah, well, you know, these things go back—you probably don't want the full history, but you know, I spent a lot of time on emerging technologies, among other areas today. And a lot of that fascination actually started in childhood. And that's an area I continued to pursue, you know, through university there. And then, you know, during my studies, you know—or after my studies—I had the chance to work at Microsoft in language learning software.

Then after that, 25 years ago this week, I actually moved to the World Economic Forum. And there was an opportunity to say what's great about software is the ability to scale impact, especially with educational software and so on. And then [with the] World Economic Forum, we reached out to global leaders. And so that's another way to have impact. And then when you combine world leaders with software, then you get some interesting opportunities to share and exchange so much of what we're doing today here.

Beena: Yeah. And AI, you know, you've seen the evolution. Everything that you said resonates because—and I'm going to date myself here, but, you know, we've seen things that we read in fiction and thought were just imaginary actually becoming real in our own lifetimes! I mean, how cool is that, right? So, you know... remember, you know, the early books around robots and AI doing things? It seemed so fictional. And as it's happening today, AI is at the center, right? Everybody is aware of AI, especially in the last 18-odd months. There is so much awareness of AI. What do you think about the conversations that [are] happening with AI? How do you see AI playing a role in society going forward and its impact on human interactions?

Jeremy: Yeah, so I think it's a great question, although I would challenge one assumption there. I think for a lot of the people that we're speaking to and I think also listening to this podcast—CEOs, policymakers, board members and so on—they're very familiar with AI. What surprises me is, I'll go to, when I'm out in the field, out meeting different individuals, you know I'll often ask, OK, how many of you actually use one of these popular tools, and so on. And I'm actually always surprised at the number of people who've read about it but haven't actually tried it or used it there. And so I think we're still in the very, very early stages of what's possible there. And in a sense, and I think you know this well, and I've been working in it: We've been working with embedded AI for over a decade now. Right? And before you didn't want to call it "AI"! You know, machine learning. You didn't want to overstate how impactful it was—and not like these companies that one day they're doing crypto, the next day they're doing AI. You know, if you were serious about it, you say, OK, we do machine learning, statistics, and so on.

So we see machine learning and AI through a number of services. How credit cards get processed, how food gets delivered, logistics and delivery companies, large retail organizations. So we've already had AI, in a sense, machine learning very close to us. But it's just recently that people recognize it as being visible. It's something that they can directly interact with, and it wasn't behind the search box, you know, behind that.

You actually feel that you're directly interacting with it and writing these queries in natural language to generate an image or a text. And so this is changing. So I think where we're going is that we'll actually see AI embedded in even more of our daily experiences, but often in a hidden way. So people won't even necessarily know that they were doing it.

At the same time, we'll also see AI more visible, and we'll see it growing in both domains. And I think for leaders, it's important to recognize that this is taking place in both areas and just because we don't see it doesn't mean it's not there. And even if we see it, it doesn't necessarily know how that... implications... or how that will play out there.

Beena: Yeah. What about human interactions, like this conversation we are having? You know, I can visualize an era where we could be talking in completely different languages. But say I'm speaking in French, which, if you don't understand, it will translate it to English, and you will still hear it in my voice, and it's all happening in real time. How do you see AI's impact on human interactions, on how that actually could improve or change?

Jeremy: Yeah, you know, we're still early days. I love the translation example. I've been traveling a lot recently. I was just in India last week and seen how they're using AI there. And that was one of the questions that came up. A lot of the models that are currently most prominent right now have been developed in the West, developed based on English language data sources.

And so there's efforts to actually develop non-English sources with data from different cultural context, different linguistics context. And so as we move forward with these tools and capabilities, I think it'll facilitate connections. And then the more connections we have, personally, I think, actually we end up in a better space—better understanding, better empathy.

But, you know, translation is one example or interpretation. Another great example is in medical care. So the extent that a machine learning device could actually take over some of the paperwork, automate filling out the forms, then that can help the quality of the interaction between the doctor and the patient. And so that also changes the interaction because things that end up being offloaded, in terms of potentially administrative documentation work, actually can then leave more time for human interaction and enhance the quality of personal experiences there.

Beena: Yeah, my doctors recently started using a device to capture the notes, and I can definitely see more of that interaction, that face time, you know, looking in the eye and asking the questions, instead of getting distracted to also capture notes on the computer. So, you know, I think that there is so much it can do.

But I also worry about entire languages getting eradicated over time if we do not capture that language. And it might be something—a very small demographic that uses it. How do we ensure that AI is including those languages? And that's a huge challenge.

You're in a global role, and you're seeing all these massive global challenges that we're facing. Languages seems [like] a minor one compared to climate disaster, the global health crisis. How do you see AI addressing some of these challenges or beginning to address these challenges?

Jeremy: Yeah, you know, over the last, say, 12 months, I personally felt there was a little bit of excessive fear. It's not that the AI is without risks. Of course, there's risks in all technologies. But I feel it is a bit excessive, especially this existential risk. I'm sure there's a crowd out there that say, "No, no, no, you've misunderstood it."

It's because I think some of these other risks—another major health crisis or pandemic, climate issues and so on—these are, for me, much more immediate risks as well. And how do we then actually use AI to address some of the immediate challenges we have of equity for people, inclusion, across economic divides, and other areas? So, you know, I could just share a couple of examples where I've seen really positive use cases.

So one, I'm just back from India, and last year we ran a pilot with 7,000 Chile farmers. So we're saying, OK, how could digital tools help these smallholder farmers? They're growing products. They're, in many cases, below the poverty line, near the poverty line, and, OK could they use that? Now, in a lot of Western use cases, technology is often seen to displace labor.

Right? So, we're going to automate a role or a function out and then displace that. But if you go to large population countries, this is the last thing you'd want to do. Because then what these people do, and you don't want to take the livelihoods away. And so here, you know, we actually did this pilot. Initially it was 7,000 Chile farmers.

We were able with digital information tools, sharing through some additional public infrastructure there, reduce the amount of water usage so water could be used more effectively, reduce the amount of pesticides that were used so they also were being used more effectively. But overall, quite positive there. Could we actually improve the yield of the crops through data sensing and so on, and then improve the time to market.

So a lot of food gets wasted in the travel trip to market. So when we took all these different interventions combined, and we worked across multiple Indian companies, we were able to effectively double the farmers' incomes in this first pilot. Now sometimes, OK, that's a pilot, 7,000, it's highly controlled. So we took a second crop cycle and then it was scaled out to 50,000 farmers, and we've just completed that. Similar results; we're still calculating the data. and we're now in the process of starting a third pilot with over 200,000 farmers. And we're already looking at the next pilot to 500,000 farmers. So this is in a space of less than two years, being able to see demonstrated results and using kind of agile software development processes, iterating on each section, learning from it, and scaling that out.

Now, it helps here that India, in this case, has an amazing public infrastructure that they've been working on, both with their national identity elements, their payments interface, and so on. But a good example of how even a low-income farmer can actually receive direct and immediate benefits from the digitization process. Now, I don't want to say this is all AI because there's a lot of other digital tools and services involved here, but if you look at the full ecosystem, then AI does become an important element to this. And our ability to scale that out to an even larger cross-section of farmers is really important because there's more farmers that look like the Indian farmer around the world and our 8 billion fellow citizens, than there are really farmers riding in their GPS-connected tractor and covering hundreds of acres a day. That model fits there. But these solutions can actually go to a very large audience. So I think for me, that's one of the really positive examples I've seen just in the last year here. And, of course, there's others as well.

Beena: That's such a fascinating example. And, you know, the scale to which you can take it, once you start with that small demographic, small population, and then expand it out globally. You know, I'm an optimist, but I think I'm a pragmatic optimist. That's why I talk so much about trust and risk in AI so that we can get it right and really tap into this powerful technology.

What are some of the trends that you're seeing that actually worries you and that you don't think is getting enough attention? And really that's something that's needed to be looked at for AI to reach its full potential.

Jeremy: Yeah, I think one of the trends which I see tapering off was this, in my opinion, excessive focus on existential risks. Again, not that they're not there, but I think it clouded a lot of the discussions around immediate risks. Where did the data come from? How is it sourced? How is it trained? Are there implicit biases in that that actually could have negative consequences here?

If, you know, you order a pizza and it goes to the wrong house and there's something wrong with the AI. It's like, OK, not a big deal. If you're using AI in a health setting and you get the wrong medicine or the wrong dosage because of how the tool is used, much different story, right? And these are really immediate. This isn't 30 years away; these are things that we have to address today. So I think that's one element.

I actually see more positive trends overall. Again, if we look back six months ago, do we want open-source models or do we want proprietary models? And when we've worked together and we've brought leaders together, we've realized that they're actually not so far apart.

And one of the things that we need right now is the need for cooperation, continued exploration. There will be multiple approaches, multiple models. There's not a one-size-fits-all approach in any of these areas. And I think that's a really healthy realization, but I think six months ago was completely lost in a lot of these debates that were kind of over amplified and not necessarily understood by most people there.

On a positive side in the trends that I see, one is just a much better recognition of the importance of data. You go back five years—even three years ago—data is not normally something that gets most people excited. Yet now that people begin to recognize that these AI models are trained on data, I think, who owns it? How is it developed? What is it missing? You know, where the quality is there. So we have a much better recognition of the importance of data, and that's a positive trend that we're seeing.

And I think they'll have, you know, second-order benefits that aren't necessarily immediately apparent here that we'll see going through and that can actually help contribute to productivity. I think another trend is around the agents and the use of agents. I think we're still in the early days. But again, as we see more of this specialization, I think that's a really interesting area to see what kinds of agents do emerge in different fields, in different sectors, and all the innovation that's taking place there is great.

Maybe the last area I would highlight that is kind of mixed, I think, is this discussion around AI sovereignty. By AI sovereignty, it's like national sovereignty for your physical borders, assets. OK, what does digital sovereignty look like? And so, I think, a number of countries now start to realize and say, "Well, where does this data sit? How is the model developed? Who has access to it?" And in some cases, we see countries that are aiming for AI sovereignty.

Beena: Yeah

Jeremy: I think this is a bit of an illusion at some stage, in a sense that even today countries don't have digital sovereignty. Some have more than others. But even a country like the US is dependent on semiconductor supply chains running through other countries. If you look to a smaller country, we see increasingly countries are not necessarily in a position to build their own cloud infrastructure. They're relying on international partners to do that—just for the capability, the skills, etc.

And when we look at AI, I think it's just good to be conscious and explicit about that. So, it's not obvious to me. I think is highly unlikely that anybody will achieve AI sovereignty. That said, I think it's a healthy discussion to have about what that means. And I think the one other area is it brings back attention on cybersecurity and the role of cyber.

So, in the absence of having all these tools, then what are actually the cybersecurity you have in each layer of your business—or your kind of national infrastructure, in the case of the government?

Beena: Yeah. Jeremy, in your role at the World Economic Forum, there is so much that you're doing to have developed these healthy conversations, bring the stakeholders together. And I've had the good fortune of working with you on launching our Center for Trustworthy Technology, and under your leadership, part of your role at the Forum is to lead the Forum's Center for the Fourth Industrial Revolution. I still remember coming when the Center was set up first here in San Francisco, and these centers are amazing gathering places and having these discussions. And having worked with you on the Center for Trustworthy Technology, I think there is so much that can be that the progress can be made having these healthy discussions and sharing best practices to drive kind of that equity, equality, for knowledge across different countries. I know during DAVOS earlier this year, you signed an agreement to establish a new Center for the Fourth Industrial Revolution in Ho Chi Minh City. So can you share a little bit more about the Center and what are the goals for the center?

Jeremy: Yeah, so maybe I can explain the model a little bit overall first, and then we can look specifically at some of the centers there. So within our Center for the Fourth Industrial Revolution, we focus on the governance, use, and application of emerging technologies. And so we look at AI, metaverse, Web3, quantum computing, synthetic biology, space, climate technologies, agricultural technologies—the entire sector of kind of emerging technologies.

And what's so exciting there is it's moving so quickly, developing so fast, it's something that's hard to actually stay up to date on. And so one of the ways we do that is actually by working through a network of global experts that are actually sharing and exchanging best practices, both opportunities as well as the risks. And doing that with people outside their sectors.

So this is at the heart of what we're doing. And we focus on three specific dimensions for each of these technologies. One is what is the transformational potential, the opportunities that are here, both for industry but as well as for government. And how will these technologies be used, and improve that. What is the necessary governance around that?

And when I use governance, I think we need to say it goes much beyond regulation. I think sometimes people hear governance and they think regulation or they think bureaucracy. I actually flip it around. It's like, again, how do we use these technologies responsibly? And this is something we're also working together on at the Center for Trustworthy Technology.

How the technology is designed, developed, rolled out, feedback mechanisms. These are really important for the productive utilization or development of these technologies more broadly. And the third area we look at is inclusivity. We want to make sure that these technologies are not exclusive, just for the people that have bought the latest phone, the richest countries.

And we saw during COVID that both rich countries and well-off individuals, for the most part—you know, there's some exceptions here—but for the most part, did much better than people. And so, if you were in a large company, you probably already had a VPN. Your employees are already with mobile devices. They have cybersecurity policies in place.

And so most large companies were able to pivot relatively quickly. I mean, even in our own organization, we literally shifted some physical activities within the space of a week and said we would move them fully virtual, and we were able to make that transition. If you were a small/medium enterprise, this was challenging, and we saw a lot of those small/medium enterprises collapse during this time period. So with this, I think the inclusion element is really important when we design and develop these technologies so that we can use them effectively for the entire global population. Now we're doing this work at the World Economic Forum, and we have our Center for the Fourth Industrial Revolution. But again, we're based in Europe. We have offices in Beijing, Tokyo, Mumbai, San Francisco, and so on. But technology is still a global phenomenon. So we're working with national governments, local governments, and then leading institutions to establish centers on either in different regional areas or on different specific topics. So, for example, in the Center in Vietnam, we're looking specifically at the role of AI but also in manufacturing.

People realize, like, oh, our supply chains are not as resilient as we thought they were. So as a country looking in that space, OK, well, how do you actually then even leapfrog and just give the next generation? And so then we're able to share and exchange those practices in these different technology areas across the different network centers. So you mentioned Vietnam, but we also have a center, for example, in Rwanda, in Brazil, in Colombia, Japan—over 20 altogether today.

And so this is really exciting, and I look forward also to seeing you in May when we bring the leaders of all these different centers together with the experts in San Francisco.

Beena: What would be your perspective or advice for any business leader, given your purview, working with CEOs or having conversations with CEOs and leaders? So purely from a business perspective, what would you see?

Jeremy: I'd look at four elements. The first one is really simple. Download it. Play with it. Download different software solutions. You know, different applications. Don't use just one because they have different behaviors, and use it in your personal life, use it in your professional life. So just see these different use cases, and make it part of your daily routine. Just understand it, and see how it's there. So I think that's the first one.

The second one, and I think most companies are doing this, but if you haven't is begin piloting it. Put it into the organization. Get people pilots. Do that in a managed way, because I think a lot of people will be surprised their employees are using it already, but they may not always be trained on, "OK, should we just dump your documents in and ask for the summary?" And if you haven't set up the right frameworks and training environments, you actually end up with I'd look at four elements. The first one is really simple. Download it. Play with it. Download different software solutions. You know, different applications. Don't use just one because they have different behaviors, and use it in your personal life, use it in your professional life. So just see these different use cases, and make it part of your daily routine. Just understand it, and see how it's there. So I think that's the first one.

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Because I do know that the employees are using this quite widely already. So better to do that in cooperation with the staff to make sure that you don't introduce unintended risks as a process there. I think part of that, the third recommendation would be to have a data strategy, if you don't already. What's the data you have today that may have value to it?

What's the quality of that data? What's the data that you would need to bring in AI? Do you have critical dependencies on data on that? But actively thinking around what your data strategy is. I think the last element I would just look at is to do some scenario exercises

and, you know the expression, “Only the paranoid survive”? I think this is a great place for a business leader to be paranoid and not assume that you’re too far ahead, that you can’t be disrupted, because we’ll see people coming forward using these applications, but with different business models and different approaches. And I think running some of those scenarios out exploring and experimenting, it’s really important to actually get the most out of the tools that are there in a way that you’re not surprised when someone comes out there.

I think the disruption won’t happen at the core—companies that are competing with—that’s around efficiency rate optimization. I think a lot of the disruption is going to be happening to the peripheries and from unexpected sources. And so how do you make sure that you actually start disrupting yourself before someone else comes along and does that?

Beena: Jeremy, this has been a fascinating conversation! And there is so much more we could talk about, but unfortunately we are nearing the end of our time. So I’m going to ask you one, well, two last questions. The one is, if you have to leave this audience with one piece of advice that they can take from this episode, what would you say?

Jeremy: Yeah, they say AI is more than AI. I think we’ve fallen into this trap of thinking around this kind of singular, monolithic AI, when what you see is actually an endless number of use cases, applications, and different approaches. And so I really try and think around how will AI, digital intelligence, and machine learning reshape processes, services, products, experiences, and that will come in a multitude of different flavors and approaches.

And it’s also why I remain optimistic that this will ultimately be a growth engine for the economy and a positive contributor to society. So as AI and all these different variations of artificial intelligence are distributed throughout the economy, in a sense, it democratized. And put in the hands of people, we’ll actually see amazing innovation, entrepreneurship emerging from that. So that’s probably the most important element that I have been seeing through my discussions there.

Beena: Amazing. Jeremy, how can people stay connected with you and continue to learn from you? Where can they follow you? What’s the best way to follow your work?

Jeremy: Yeah, I think the best way is through our website at the Forum. We’re at WEFForum.org. And there I share some of the work that we’re doing, for example, the agricultural work I mentioned earlier, but as well as the work of all my colleagues and team members and also the work across this network of centers, including the Center for Trustworthy Technology.

And I think that’s really where the wealth of knowledge is, is just that exchange. And occasionally I am also able to contribute to that as well. But definitely welcome everyone to come visit our site there and learn more about some of these great examples we’ve discussed today.

Beena: Jeremy, this is great. There is so much our audience can learn just from this episode. And, you know, I’m sure we will have follow-up conversations. And as Jeremy said, please do follow the Forum’s website. It’s a wealth of knowledge, truly, and I leverage it extensively. Jeremy, thanks again for being with us on the show. And I wanted to thank our audience for tuning in to AI Ignition today.

Jeremy: Thank you, Beena. Looking forward to our next conversation in real life or through the podcast. Thank you.

Beena: Be sure to stay connected with the Deloitte AI Institute for more research and insights and conversations. Thank you.

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