

# RADICALLY HUMAN PODCAST

## VIDEO TRANSCRIPT

**Paul Daugherty [00:00:00]** Businesses have not been radical enough in the way they use technology and the way they drive the investment, and that's going to be key to success in the next decade.

**Sanjeev Vohra [00:00:14]** Hello everyone and welcome back to the AI Leaders podcast session. I'm Sanjeev Vohra. I'm the Global Lead for Accenture Applied Intelligence and I'm your host today and today we have a great session lined up for you, which is actually based on some of the feedback that I've received over the last few months. We are going to discuss the book that was released early this year, *Radically Human*, that talks about how technology can be a fundamental driver to business transformation and get companies and enterprises ready for the future. And I have the privilege to have the authors of this book, Paul Daugherty, who is CTO of Accenture and Chief Executive of Accenture's Technology business, and Jim Wilson, the global managing director of Thought Leadership. Hi, Paul. Hi, Jim.

**Paul Daugherty [00:00:55]** Hey Sanjeev. Great to be here with you today.

**Jim Wilson [00:00:57]** Great to be here, Sanjeev.

**Sanjeev Vohra [00:00:58]** Thank you very much, and thanks for taking time. Why don't we just dive in? Let me first of all congratulate both of you on the book and the fantastic response we have received from readers so far. It's definitely a great read. I have this with me, and I remember the last book that you wrote *Human Plus Machine*, which at that time described, in my view, the need for humans to adopt machines or work with machines. And I

remember Paul saying that the reason that triggered his thoughts to kind of start thinking about that was the idea that kind of the general fear of AI adoption and AI itself. So, it was a very timely book in 2018 to help people understand how machines and humans can actually work towards a common goal which is delivering more efficiency in fact. And now about this book I just want to ask both of you, actually maybe Paul first, what are the market trends that you observed that triggered you to think about this book?

**Paul Daugherty [00:01:53]** I'll start, Sanjeev. A great question. It's great to be doing an interview with somebody who knows at least as much about the topic as we do which doesn't always happen given the depth of insight, the knowledge you have around these topics. It's great to be doing this podcast with you. But, you know, the first book was really centered a lot around artificial intelligence. As you said, *Human Plus Machine* was talking about the ongoing relationship between humans and humanlike technology in the form of artificial intelligence - at that time that we called machines - so *Human Plus Machine*. And we'll talk maybe about this more later, but as we kind of look at the backdrop of what evolved as we were writing *Human Plus Machine* and rolling out that book...you know, we're in the midst of this ongoing technology revolution, and it's more clear than ever that technology is reshaping every part of society and every part of every business. And the five forces - some that are listening made have heard us talk about them in other contexts - are driving the next decade around technology. We kind of in our minds were thinking about where to take things after that first book, and those five trends simply are -



again some of the people on the call have heard these - but the first is around total enterprise reinvention which is moving beyond digital, and every business becoming digital, every part of every business being transformed by digital technologies and getting to this really total enterprise reinvention powered by technology in every part of companies' businesses. That's the first trend we saw. And really, we're probably only about 20 or 30% of the way down the digital journey for most companies, if that. I asked CEOs, many said they're not even that far. So that's a big trend over the next decade. The second is around talent. And I think we're all feeling the shortage of talent. How do you cultivate talent, talent in these specialized technologies and such that we need and that will continue to be a trend and something we need to capitalize on. And what we're talking about in Radically Human is kind of really wired in around that topic in particular. Sustainability is the third trend that we see driving business in the next decade, and it's a technology context because technology will not only be used to monitor sustainability, it's often the solution to sustainability, and now is the time for companies to realize that and adopt in what they're doing. We write about that in Radically Human. The fourth force for the next decade is the metaverse. We'll probably get into that a little bit more as we talk, and that's really reshaping human interaction in a different way, propelling these technologies. And then the fifth force shaping the next decade, or the fifth trend, is what we call the ongoing tech revolution, which is new things. It's quantum, its science based technology, new innovations in the way we do biotech and things like that or digital technologies infusing much more of the broader technology and science landscape. So, it's an exciting time to be doing what we do and an important time to really rethink the role of technology, the role that business leaders play, the role of humans in it, and that was part of what was in our mind as we went about this book.

**Jim Wilson [00:05:05]** Yeah, building on Paul's point, our thinking in the book is informed by a

significant research effort. We, over the past three or four years, done research on more than 8000 companies, and that really informed the way that we thought about the book, wrote about the book. Two of our Accenture studies really found remarkable evidence of an acceleration of the speed of change of enterprise reinvention building on that phrase that Paul just used. So, we were seeing that the pace of tech adoption actually soared quite a bit, by about 70%, as compared to before the pandemic and first time adoption of digital technologies, artificial intelligence, machine learning, cloud and related technologies averaged 63%. By that we mean that for any given technology a firm had not adopted before COVID hit, there was a 63% chance that they were going to adopt it during the pandemic, especially in those early months. Moreover, another thing that we saw was that during the first year or so of the pandemic, those digital leaders increased their advantage. In other words, their growth rates over digital laggards went from 2x to 5x. That's a stat that we've talked about quite a bit at Accenture. And those digital leaders really proved that intelligent technology is not just about efficiency, but it's an innovation and growth engine when it's intentionally combined with human talent and with good leadership. So, we really see in the data that we're at an inflection point, if you will, and executives really needed a new formula on what to do now and then what to do next, and that kind of informed and gave us a platform for working on the book.

**Sanjeev Vohra [00:07:15]** Thanks. It's very interesting. And I like what you just said about with the business transfer, being able to generate much higher level of value especially on not only efficiency but also innovation and growth. I think that is profound. I just wanted to ask you before I dig deeper into this formula that you mentioned, may I ask why you did you name it Radically Human? Did you do a competition? Did it come out after you did some research around the name? Because the name is really intriguing, and I just wanted to ask Paul and you Jim if you had some sort of thought process behind naming this book.



**Paul Daugherty [00:07:50]** I find the naming process fascinating. I always wonder like how to do rock bands name themselves and things, you know? The name for a book is kind of a similar process that kind of evolved. So, I'll disclose that the working title of the book, when Jim and I were working on it, was The Big Flip because we were talking about how we needed to, in the formula that Jim mentioned, invert our assumptions and think differently about a lot of underlying assumptions, you know? The flip, the big flip in assumptions around how you view data and intelligence and these different things. That was our working title and then well the publisher didn't like that name. That was part of the problem and then also when we started thinking about what we're really writing about in that context, we really believe that we're entering this new era, this third era in the way that humans interact with technology. The first was the machine era where you think about mainframe technology. Client server technology was optimizing around what computers could do, and it was up to the humans through change management training to figure out how to use these darn things. And it continued with the smartphones and things today where we type with our thumbs on these technologies. So, it's kind of humans almost being subservient needing to figure out how to use machines. The human plus machine era is what we wrote about our first book, which is kind of matching and pairing of smart technology with people and bringing out the best in both. And then this new era that we believe we're moving into is ahead of us is the radically human era where technology meets people on their own terms. We have more intelligent technology as Jim talked about. It enables more human capability, more human productivity and unlocks a lot of potential. That's what's exciting about the next era and that's where the name came from. And I can't remember who came up with that, Jim, I'll give credit to you for the name because I don't recall coming up with that that flash of brilliance, but it evolved as we talked about where we're headed. Jim if you have any other views on that...

**Jim Wilson [00:09:41]** Yeah, I think we initially

had talked about that phrase when we were doing that first bit of research on future systems. It came out when talking about architectures of the future and certainly the way that we mean, and they're talking about that phrase in the title. We're talking about technologies and strategies that are rooted in human capabilities but are also revolutionary. By revolutionary we mean that we're not just interested in kind of incremental designs and uses of technology. We're not talking about kind of so-so technologies that simply replace an existing work task with an algorithm but don't actually enhance productivity. We're talking about technology and work designs that really create new value and more productive tasks for people and for machines as well. And I've been tracking economic research on this, and as that research shows, as our own Accenture research shows, these more revolutionary technologies are the ones that can actually enhance overall productivity and societal prosperity and even new job creation, but you need to think not just about kind of automating a single task in say a workflow or process. You need to really think end to end about things, and we're encouraging our readers to do just that.

**Paul Daugherty [00:11:17]** Building on what Jim just said one thing we found through the research in writing the book is that when you look at it, the problem is really businesses have not been radical enough in how they applied technology to solve problems and hedged a little bit in applying technology. And that's another reason we named the book Radically Human. We believe that there's a need to be more radical in the way they use technology and the way they drive the investment, and that's going to be key to the success of the next decade in unlocking these radically human capabilities.

**Sanjeev Vohra [00:11:49]** Got it. That's great. And you did mention about the flip, you know, earlier and the formula. Jim question to you. One of the practical and key takeaways obviously from the book was the IDEAS framework. There are six there you can easily use, especially for the people who are engineers and software



engineers or anybody who are technologists. Any analytical brain will be able to have a resonance with the framework. Why don't you tell us a little more about this framework if you may.

**Jim Wilson [00:12:22]** Absolutely, Sanjeev. So, you know, in the book, we propose that executives do need to flip some of their commonly held assumptions around business fundamentals. In particular, we really need to reframe our long held assumptions in five key areas that we call out, and actually we have full chapters on each of these areas. And these are intelligence, data, expertise, architecture and strategy, which is the IDEAS framework, kind of an acronym there. For example, in the world of intelligence and AI, we're actually seeing systems becoming more natural and, in a sense, less artificial. And we're seeing that researchers and practitioners are really working on ways of baking common sense, a sense of how the world works, causality, natural language models into AI systems. We've seen remarkable progress in these areas. In fact, I just sent Paul an article that was on the cover of The New York Times today on the advances in natural language processing over the past couple of years. So, we're talking about precisely these types of technologies. We're really seeing a turn toward techniques that are rooted in human intelligence that improve deep learning in a sense, which is the most prevalent yet also the most compute intensive AI technology today. One example that we talk about in the book is the UK based company Exscientia, which is the first firm in history to use AI to develop drug candidates for human clinical trials. And that AI actually mimics human intelligence by design and is trained to interpret images and data in more humanlike ways to discover molecules that can treat diseases. Also, we're seeing at that company that the scientists there are using a new generation of AI techniques called active learning that enable the AI to make predictions on very small sample sizes like a human scientist might.

**Sanjeev Vohra [00:14:37]** That's great. And I

think the IDEAS framework has a great resonance, and anybody can understand. It's not just technology leaders and business leaders that can actually adopt the framework and can start appreciating and think more. It could be immensely useful to all of them at the business. Paul, this question for you. How do you think companies can actually implement and adopt this this framework? Any example or any advice for people to just look at this and share the thinking around this and how to use this on a day to day basis?

**Paul Daugherty [00:15:11]** One thing we write about in the book, and, over time I think I'm finding more and more value add and more resonance with clients, is that the strategy part of what Jim just talked about, the strategy part of the IDEAS framework, I think that's a bridge to some of the application. Thinking about that there's new ways of doing strategy in this area. We talk about minimum viable ideas. We talk about forever beta collab. These new strategic approaches which are really resonating as we work with companies on it. But then when you look to what differentiates companies as you implement this, there's a few areas we talk about which really forms the second part of the book around talent, trust, experiences and sustainability, and those are key things we think that companies need to consider as they navigate these changes. Talent may be an obvious one that I talked about a little bit earlier as part of the five forces. But, you know, it's talking about how do you develop the right talent, how do you democratize access to technology to unlock new sources of talent? How do you create the right learning environment? I think something we see closely with the work we do at Accenture with our own talent is we see a lot of this in things like using the metaverse, you know, one of the other trends, in terms of ways of increased immersive learning and developing talent. Trust is the second part of that, the second differentiator that we talk about. And the reason it's a differentiator is everything Jim talked about around the IDEAS framework and what you do. You're going to need to have enhanced levels of trust to develop



these services and develop these interactions with consumers and develop these products and services, and the ability to instill trust in new ways and to leverage trust, I think is a real powerful differentiator going forward. A good example that we write about the book is the insurance startup disruptor Lemonade in the way that their whole business model is created around this this idea of enhanced trust with their consumers and trusting the claims and such that their customers submit a different way than has been common in the insurance industry. They have the technology underpinnings to commercially build the business around that and really develop the different experiences of the customers really respond to. So that's a good example of using trust strategically and commercially. The third differentiator we talk about is experiences. Create new experiences. Lemonade itself is a good example of that. How do you make experiences more rewarding? How do you differentiate? How to make them more tuned in, etc. so that you're really developing those kinds of interactions and relationships with the customers. And then the fourth one is sustainability. We get into this in the book because as we go down this path with technology, we have to recognize that on one hand, technology provides a lot of solutions to sustainability, as I mentioned earlier, with the five forces. But, on the other hand, technology can be not green but kind of red and create a lot of sustainability issues because AI and all of these technologies, the metaverse, they consume tremendous amounts of technology. So, we talk about that in a chapter of the book and how do we make sure that we are developing more green pathways forward in using technology, developing greensoft or green technology as we look at the solutions to create a better future and better planet.

**Sanjeev Vohra [00:18:29]** Thank you very much. And I think as you mentioned very clearly, trust is coming up as a top item and is everybody's and every CXO's concern as well. I think the Lemonade example is a great thing, and there's so much work to be done here which

also can actually increase adoption of technology as well and get away from any fear or any concerns around it. So now let's go back to the point that you raised earlier. I think everybody is kind of very keen to know about the metaverse, right? What is the role of metaverse in this radically human world? And how do you see this enabling the businesses beyond the initial use cases of the metaverse? What is your point of view on this metaverse?

**Paul Daugherty [00:19:11]** The metaverse, I think it's important to understand and put it in context that the metaverse... some people think of it as just cryptocurrency or these decentralized lands and some of these new worlds that are being created. But what's really important to do, and the way we frame it in terms of the real, broader impact that the metaverse will have as it evolves, as we go through the evolution and adoption of it within business. And it's really a continuum of capabilities that span across the enterprises. Industrial metaverse scenarios of how you interact using augmented reality and digital twins and such with equipment. There's employee metaverse that I alluded to earlier, how we're using it for onboarding and training with Accenture. There's the consumer metaverse about how do you create nonfungible tokens and products and services with customers. There's a financial element to the metaverse with new trading platforms, new fiat currencies as well as cryptocurrencies and such. And if you look across that array, we're seeing that there's opportunity in every industry to move forward with metaverse applications today. And the radically human angle is really important in that because we strongly believe that radically human is the right lens with which to look at how you navigate through the metaverse in terms of looking out for the human potential, creating the trust, making sure you're pursuing responsible metaverse from the start given some of the concerns that exist around some of the metaverse technologies. So, I really think that we're going to see metaverse over the next five years and ten years evolve to be as big of an





impact and a bigger impact on business than digital has been over the last decade. That's a big statement, but I believe that's true as the metaverse really comes about, creates new opportunities for business, new opportunities for people. So, again, radically human is kind of the framework, the playbook that I think helps companies move to that future.

**Jim Wilson [00:21:04]** Yeah, I just I'd circle back to that idea, Sanjeev and Paul, that you both mentioned around trust. And I think it's important to put the metaverse in a trust context and anything that we're doing with technology in a trust context. We're seeing in our research that nearly three quarters of leading companies these days are really focused and investing on differentiating around trust. Some of the things that we think it means are security and transparency and fairness and privacy. But one of the discoveries that we made when we were doing the research for the book is that software and machines also need to be informed by human behavior, by humanity if we're going to trust them. So, we talked about a bunch of examples in that trust chapter on this topic. You know, Nvidia, for example, a chip manufacturer out here in the Bay Area, is developing self-driving car systems that learn by emulating human driver behavior, which drivers actually find more trustworthy. That company is also incorporating explainable AI into that system so that the system can show which human behaviors it's learning from. I think one of the most significant trends up there with the metaverse that we talk about in the book is what we call machine teaching, and more precisely, that's a shift from machines learning only by kind of processing mountains of data to humans actually teaching machines based on their professional expertise and their human perception and their intuition. So, machine teaching can actually enable trust in areas where machine learning sometimes comes up short. We talk about the example of Etsy in the book, which is the online marketplace for vintage and handmade goods. They've been using machine teaching to actually develop a product

recommendation system based on fashion style aesthetics, which is a notoriously difficult AI challenge. But this challenge has been addressed by having the companies' human merchandizers actually school the system on subjective categories of styles. So, Etsy's algorithms now have a more human like sense of styles from the art world, such as whether a product that they're selling is art nouveau or art deco. And it can tell the emotional style of a painting or a photograph, whether it's fun or humorous or inspirational. So, the aesthetics and artistic sensibilities of human beings are actually powering more trustworthy classifications of products on that platform, the products that get recommended to customers by the algorithms.

**Sanjeev Vohra [00:24:19]** That's great, and I like the point you just mentioned about machine teaching, which actually sort of enables or maybe strengthens the relationship between human and AI. You did mention about deep learning earlier, and I can't skip asking a question on that, because I think a couple of months back, we had a very, very deep discussion on deep learning with one of the guests. These technologies are still not in a high level of adoption in the business or enterprise world, as you may appreciate. And I think one of the reasons is about the need for massive computer infrastructure investment. And more than that, I think it's investment availability of data sets, a lot of data sets in an enterprise world, unlike a consumer world where you actually get to see a lot of logged data sets or you're able to see or visualize or collect, that information to be refined. But you mentioned about the new and alternate approaches just a few minutes back and your book also reviews this situation. So, can you tell us more about that? What options are there which are beyond to generate insights or generate a recommendation for a situation?

**Jim Wilson [00:25:36]** Yeah, I think, you know, I want to emphasize that we're not moving into an either or world. It's a both and world. So, I think



we're going to see continued adoption of these deep learning techniques, but also the small data techniques as well. In the past few years, Paul and I have been tracking kind of the evolution of how data gets used, data science, data engineering techniques and where we've been seeing companies experimenting and adopting less data hungry AI, if you will, which can complement those deep learning approaches or those big data approaches and large AI model architectures. And in the book, we talk about techniques like data echoing, active learning, which I mentioned a bit earlier, synthetic data. I think in many cases these new AI systems that we're seeing or these approaches to enhancing AI systems are more flexible, there more data efficient, more like humans who often require, you know, just one or two data points in order to perform a perceptual or a reasoning task. Moreover, we're seeing when robots have a more conceptual understanding of the world, as humans do, it's often easier to teach them things using far less data. For instance, we talk about the company Vicarious in the book, which has developed robotic arms that actually get better at sorting items as they do the sorting. And these smarter robots have been put to work in a lot of companies. We talk about the example of Sephora, where the Vicarious tool is helping them assemble product sampler packs. The company has to deliver a huge number of combinations of these sample packs around their fast changing SKUs and different types of way of boxing these sample packs as well. And an AI system which is modeled on the human cortex has actually lowered the cost of this huge combinatorial problem by about 80%. But it's really coming back to having a view that it's not just about these large models and these huge architectures that are getting all the front page headlines these days. You also need to have small data approaches as well, in some cases, to prune the model, make it more data efficient and more cost effective.

**Sanjeev Vohra [00:28:26]** This is good. And I think this is so interesting that we can spend

much more time on this discussion if we keep going, but I think we have to stop somewhere. Maybe I'll ask Paul. Paul, is there anything else that comes to mind from this discussion that you would like our listeners to take away?

**Paul Daugherty [00:28:42]** I think, you know, when you write kind of a book like this, it's kind of about the idea, the core idea that we're trying to get across. And in this case, it is radically human. We talked about the origin of that earlier. And I think as you look at where we're going with this that you have to think about some of the takeaways in the book. I would think about it radically given this new era that we're entering - which I firmly believe - and there's truths underpinning this that I think are guiding the way for companies. The first is something I've been saying for a while, but I think is really manifesting itself, which is that all companies really now are technology companies. That's what we're talking about with not just CIOs but CEOs, in terms of how they develop their technology capability. The second is that companies are really embracing the technology speed and change and reinvention. I mean, look at what's happening out there with the pace of technology adoption, even in an uncertain economic environment that we're in at the current time, because what technologies provide isn't just the back end cost supporting the business, technology is essential to providing the solutions to companies operating more resiliently in the changing environment that we operate in. So that's the second thing. And the third thing is that, when you look at, as we say in the book, this human technology relationship, it's the human capability that's really in the ascendant as we move to this radically human world. So, that's how I would sum it up.

**Sanjeev Vohra [00:30:14]** Thank you. Thank you very much. This was a pleasure to have you and discuss this book and your views on that. And I'm pretty sure that I got something out of this discussion. I'm sure that listeners get something out of this discussion as well, and this can help them think a little bit more, ideate more



and implement something that could be very impactful for their organization workplace. And with that I would like to share my sincere thanks to both of you for accepting an offer to speak to us and wishing you all the best.

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