

TECH TRENDS 2025: ACCELERATING AUTONOMY WITH THE COGNITIVE DIGITAL BRAIN AUDIO TRANSCRIPT

VO: This is **The Lens-** Life Sciences Reinvention in focus.

Tom Lehmann 00.13

Welcome to **The Lens**! I'm your host Tom Lehmann, and welcome to a conversation about the impactful changes happening in life sciences organizations. In this series we are showcasing the progress that has been made, and the challenges that were faced by organizations along the way. We explore the way the industry is being reimagined and reinvented.

However, this episode is a little different and is an opportunity to feature a broader industry perspective. For more than 20 years, Accenture has published an annual Technology Vision that reviews and identifies emerging technology trends with the greatest impact in the coming year. We also reflect on how those trends have evolved over time.

In this year's report, there are 4 trends shaping the future of business and society:

- The exponential expansion of AI and how that's upending systems
- Differentiating the customer experience when every interface looks the same
- How foundation models, like Large Language Models, are reinventing robotics, and
- How People and AI define a new virtuous cycle of learning, leading, and creating

Today I'm joined by Tracy Ring, who is the lead of Accenture's Life Sciences Data & Al business. During our conversation we will discuss two of the four tech trends, which are:

- The exponential expansion of AI and how that's upending systems
- Differentiating the customer experience when every interface looks the same

If you're interested in learning more about our fourth technology trend, I encourage you to listen to our recent episode with David Hole, where we discuss "The new learning & leading loop between people and AI."

So without further delay, let's dive into today's episode and I hope you enjoy it!

Tom Lehmann 01:36

Hi Tracy! Welcome to The Lens.

Tracy Ring 01:38

Hi, good to be back.

Tom Lehmann 01:40

Thanks for joining me today. So, Accenture's 2025 Technology Vision is focused this year on the growing impacts of generative AI on business and technology. In this year's report it explores the unifying thread between four trends: how AI is becoming generalized, the autonomy it brings to the things it touches, and how it'll be used to develop cognitive digital brains for every enterprise. The research also raises how trust, both emotional and cognitive, will be paramount to any AI driven enterprise reinvention. So let's start our discussion here with those two ideas. Can you first explain the concept of a cognitive digital brain?

Tracy Ring 02:18

Yeah, absolutely. And I think the way that we're using some of the terminology on this will just be a great way to onboard—and I think also show how this is a pivot. We're not new at AI. We're actually not, at this point, new at Gen AI. All of these things have kind of been culminating, but this 2025 vision around this, I think, is really bringing some new things into light. So this idea around this cognitive, digital brain is really about: *how do*



we think about this technology, but take it to the next level? So historically, we would give instructions to a computer. A human tells that computer what it needs to do and that computer literally is taking bits and bytes and it writes it into a programming language, it translates it instruction by instruction, sometimes applies a little bit of decisioning criteria but that's all predefined, right? The idea that everything had to be very, very premeditated.

This cognitive, digital brain is really taking this evolution and making it an analytical tool. And we're taking it to something that has knowledge, so it's got a layer designed to gather and organize and structure data from the enterprise and beyond. It's got models, so this is a repository layer that takes all of these generative AI models that we've been talking about for the last couple of years, applying classical machine learning and deep learning models, and it's giving that compute layer, or sometimes the cognition layer.

Then there's agents, these software applications that are powered by AI models that can perform tasks autonomously with very little human input into that. And then this backbone, so this is your digital core you'll sometimes hear us talk about—but this essential architecture that supports all of this, much like a spinal cord in the human and Tom you're hearing me talk about all these things in very human ways, like we're talking about making decisions, we're talking about spinal backboards, all of these things. Because this is really this next extantiation of that cognitive brain, and it's no mistake the reason we named it that.

Tom Lehmann 04:47

But it does make me wonder then, this goes to the point of trust here- you talked about limited human input. So, as we put more of this technology in place, and the technology is being able to do more on its own without the very clear instructions, as you said, what role does trust play then here, as you think about, how do you get to scaled adoption and ultimately the impact from it?

Tracy Ring 05:06

Yeah, and this is where the data comes in. So our research tells us that over three quarters of executives believe that unlocking the true benefit of AI is only possible when it's built on a foundation of trust. So leaders have to build trust in those digital systems, those AI models with their customers and their workforce. That means that they need to be accurate. We need to be able to predict them. They need to behave consistently—and we need to be able to trace them in a responsible way. So there's this emotional trust, that means that people trust and believe in the leaders of their companies that they're going to get it right, that they're going to be responsible, they're going to engage in efforts to make sure that they secure it, not just once, but we're constantly monitoring, securing and resecuring it so that it's safe for our people, the public, our patients, etc. We live in a world where we've got deep fakes, we've got phishing, we've got bias- all of these things are working against us. So, all of these technological aspects of the AI technology, are important that we have to get right.

Then there's cognitive trust, which means, "*I believe in the solutions*.". How many times have we been in a situation where somebody says, well, the data says X, but my gut says Y. So we've got to get past that ability, that not only do I believe that the system is there and it's safe and accurate, but I'm also going to really use it and embrace it in the way that I can retain those benefits in the performance. And so that trust, just like a human, we have to continue to build and continuously improve that. It also means that trust is not automatic. And just like any employee, if we have something that goes wrong, we know that we've got to do all the things to make sure that you can trust it. So, huge anchor in the way that if you're going to realize the value of AI, there's really no way to do it unless you solve that trust foundation.

Tom Lehmann 07:27

And what's your sense right now? Is there a bigger trust gap or divide that needs to be closed on the emotional side, as you described, or the cognitive side, or it's about the same with both?

Tracy Ring 07:37

You know, to be honest, I think it's probably about the same. I think organizations that have had scenarios where the trust has been broken, obviously that's one where there's work to do on both fronts. I like this idea that if we solve the trust factor here, there's a really good opportunity to ensure that it becomes your co-pilot, and then it's somebody that I consider part of my digital workforce. So lots of, I think, help that are there but I think the interesting aspect of it all is that, as we do start to trust it, it also feeds itself. So we know that there's an urgency here. We know that there's an idea of how do we reinvent and I have seen with my clients some examples where someone has said, maybe it wasn't so interesting, or I didn't think it was so great. And then they took it away and then they realized that they actually were so reliant on it. So it's not so intuitive when trust is formed as it is when trust is broken.

Tom Lehmann 08:54

Well said and understood, and I do think we are in a unique position with this technology and its potential. But as you said, it's just the critical role that trust will play in order for us to actually see this, hit the scale that I think we all expect that it will. So let me pivot us then to a

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couple of the trends that are in the Tech Vision here. So two that I want to focus on again, the binary Big Bang.. and your Face in the Future. So starting with binary Big Bang, we're in this rapid state of evolution with technology right now. So what is the essence of this idea, the binary Big Bang?

Tracy Ring 09:26

Yeah, so it's interesting. Someone was, was asking me the other day. They said, we've had all these changeswe had chat GPT that came on, then we had this upending of what's the best model, we have co-pilots, the world over, you know, why is not this current rendition of where we are just yet another of what's in fashion right now. I think the solace that we can all take is this idea, when AI is expanding exponentially, all these systems are really upended. And so this Big Bang is laying the foundation and this emergence of what we would consider agentic systems. And so this is challenging all of our conventions around how software is developed, the cost of building out these digital ecosystems. A bit of good news, which is every agent that I build should be cheaper and it should have more utility and can be much more reusable across this expanding digital ecosystem. So you can, you know, crack this natural language barrier, and we've got the way that we're operating these in totally different ways. So we're seeing the A's, I call them, we've got abundance, abstraction, autonomy-all these big bang ideas that are coming together but instead of bundling a bunch of common gen AI features together, its taking them apart so that you can leverage existing system flows and that's how you get onto this idea that to orchestrate a task you might be dealing with lots of different agents- I might have a research agent, I might have a scheduling agent. I might have a call-note recapall of these different capabilities are out there working, in a way that not only are they doing these independent autonomous tasks, but then there's agents that are working across them to orchestrate them, that agents themselves are having huddles to solve problems, etc.

So we've kind of taken all of this work and broken it down into a way, again, more similar to if you had an agentic workforce of individuals that had tasks that they were working on, and they became experts in those tasks. So, really a different shift into this, and I think you could tell anyone more, but the idea of how we're thinking of in silico medicine, a very, very different way that we're tackling this, where we see, a discovery phase of clinical trials go through, something around a 30-month period that can be extremely, extremely compressed. Because you can take these pre-trained models and do these in a way that you can scale, you can drive efficiencies and we do know that in most cases, these agents are actually better at finding defects, they're better at anomaly detection, and in many ways, they are more accurate than a human that could make mistakes, whether it's due to fatigue or just the insurmountable amount of work that's out there. And so those are just two examples, but I think set a new archetype of how we see work being tackled into the future. I presented to someone the other day, and I said, you know, we have a team of people that are here to solve a problem for a project. But I would be remiss to say that in the team, there's a set of digital agents that are here helping, co-piloting and supporting and contributing as well. So this whole idea of a digital plus human workforce is really important.

Tom Lehmann 13:40

So with that in mind, then, I do wonder here, what's the interplay between the agents as you were just describing—and a couple of really good examples of those and so-called more classic AI tools. So how do those work together, and how does one build upon the other?

Tracy Ring 13:57

Well, I mean, the models in the traditional AI that are there are still a component. I think we're still going to have data scientists that are using traditional algorithms, that are still doing predictive analysis, etc. So all of that AI that has existed and continues to exist will be there. Some agents will be leveraging more AI than others. And again, I think that hybrid view of, you know, I talk about the permeability between humans and machines being at the lowest point we've ever seen that everyone is so much more AI enabled at this point in time, that it might not even be intuitive to someone how much they are using AI—and that is, I think, an important mindset to have, that again, that permeability is much lower now.

Tom Lehmann 14:56

Alright, that's fair, It's helpful. So let me come back to one other point that you made around software development. So how is this advancement in technology reshaping the way software development is happening?

Tracy Ring 15:09

Well, I think two key components to the way software's developed. So first is the absolute jump start, or scaffold of where we're starting is so much faster. We're not starting with a blank piece of paper, we're not starting with a raw set of approaches. So, lots more compartmentalized pieces of this. You know, we have, even within Accenture, we have these, these great examples of ways that I can simply take a YAML file and configure it and do moderate to simple tasks just within a



configuration base. So we've got these enormous jump starters. We not only can jump start to create the code, but you can use AI and generative AI to help find defects within the code. So all of the things that if I put on my, "how did we do development even 5, 10, 15 years ago," the idea of rolling the keyboard back and forth, and pair programming, our pair is probably, in most cases, going to be a agent or somewhat Gen AI copilot type of a setup. So we've got all of that.

The other piece is, that when I think about all of the major software development platforms that are out there, their R&D budgets are mostly focused on how do they infuse AI. It's imperative that the way that end users expect all of their digital experiences-take whatever major platform you're thinking of, whether I'm creating invoices or writing an email or doing employee reviews or regulatory submissions-pick whatever you're doing. I actually now expect that it's going to predict what I should do next. It's going to tell me how to do it faster. It's going to say, you know, "Hey, Tracy, it looks like you're trying to do this, "Did you know?" We are self accustomed just because of the way that our normal lives are used to having, our movies, our songs, all of those things predicting. So we're sort of infinitely more open to being guided throughout every single thing that we do. And I always like the statistic that we know that Al enabled workers are actually happier workers. Someone posted that they are 200% happier. So that's amazing to know that the mundane, difficult, frustrating tasks actually can be made simpler and nudge. I'm used to going to look at a dashboard to find out data. Well, how much more wonderful it is that someone says, "Hey, Tom, did you know?", and nudges you to do exactly what you want to do, right? You kind of get this sort of jump to the answer a lot faster, and that allows you to be so much more effective doing the things that required deep thought.

Tom Lehmann 18:25

So let me use a little bit of that, which you just discussed to get on to the second trend I wanted to go through today. You're talking about a lot of the platforms are working on this, in this space, trying to change the experience, and everybody's doing something now at this time. So as we look across industries, what we're seeing is businesses are finding a lot of different ways to implement generative AI. They're looking at operational efficiencies. They're looking at various different ways to automate tasks there and at this point, ways to scale the impact. But they're also seeing the customer focused roles as a natural fit for this technology advancement, and thinking about, how do you change what that what that would look like.

But in doing so, they're also reinventing the face of their businesses. And so whether it's for customer service, or whether for ad material generation, bringing chat bots into products, etc., we're seeing all of these things happen today. But certainly there's a risk here that if they're not careful, all these are going to start to have the same look and feel. It's going to start to have the same face, if you will. So as we go into the second trend here of, "your face in the future, when every interface starts to look the same," what are the key elements of this? And how do companies avoid that happening?

Tracy Ring 19:34

Yeah, I think we've, at least, I have been in the situation where you're dealing with something, or you think someone, and you have a moment of pause and say, "Am I really talking to a human?" Is there someone behind this or is it a bot, which can be frustrating, and you kind of know, potentially, when you've tripped into talking to a real person that can, you know, potentially solve the problem. But to your point, around this idea of personalization, I think that it's extremely important that when I'm communicating about a life-threatening health issue, it does not feel the same is when I'm trying to return a box or report that I've had a missed delivery for something on my doorstep. Those are completely different experiences, completely different levels of tone urgency, and this idea that it's imperative- 95% of executives report that having a consistent personality that's on brand is imperative for them to be successful, right? And consumers that are really familiar with Gen Al, you know, feel that they are 75% more confident about the use of it. So it's very important that that tone of an organization, the tone of what is the genesis of my interaction and how that is handled, is really important. We know that the answer here is not just creating more chat bots that can go find answers and dig things up. It's really about these conversational interactions are just as important as every other method of communication, and it's also really important that we use any type of interaction to create that feedback loop.

So we need to proactively use that into the other point, which is building trust. I need a personalized experience that's on brand with how I speak to my customers, my internal clients, etc. It's really I think, part and parcel to how we get those agents to operate in a way that feels on brand, and not just on brand, but feels like the exchange is a positive one. We know every opportunity we have to work with our client, stakeholders, internal or external, is a reinforcing factor, and what we don't want is to have anything that's the detriment, I think, of sort of when phone systems were, were first being rolled out, and, you know, you just used to try to fight, to talk to an agent, right? This doesn't work if you're really just trying to fight, to get to a human.

Tom Lehmann 22:35

Well, but you can certainly see, though, as AI becomes



more ubiquitous, it is harder to find that personal interaction, that true personal interaction. So therefore, as AI becomes much more pervasive, really being clear what you want that personality to feel like, how do you put that alongside the brand, becomes essential because if not proactively managed, that you could have a pretty massive divergence.

Tracy Ring 22:59

Absolutely.

Tom Lehmann 23:00

So are there examples of organizations that are a little further along with this at this point, that have not only really brought that AI or customer facing side of things well alongside their brand?

Tracy Ring 23:12

Yeah. I mean, I think that there's a number that are leading from the front. We've got Google's Gato model, we've got enormous, impressive things coming out every single day. Outside of Nvidia, there are, I think, incredible examples where we see places where it's continuing to move in a direction that are there.

I've got a handful of clients that, I think, when they really have been thoughtful about where and when they're applying it, they get a good experience out of it. But there's still a huge opportunity here and again, that tuning because, we're not just talking about, like the tone and the language and all of those things, because we're also thinking about, the way I might interact with a customer in a certain geography, for both legal, regulatory, all these other reasons, is going to be different, right? So I think we've got some great leading examples, but lots and lots of work to be done here.

Tom Lehmann 24:22

And I imagine that work is very much going to depend upon what type of organization it is. So if it's very health oriented, and there's a level of urgency, there's a level of just maybe apprehension that comes along with that. It's going to be different than if I'm interacting with a retail company, which can be different than a government agency. And so I think as this starts to develop, we're going to see quite a range of how companies take this on.

Tracy Ring 24:25 Absolutely.

Tom Lehmann 24:47

All right. Well, good. That's what I was hoping to cover today. I appreciate you joining, and again, we're just scratching the surface a lot more we could get into here, but I think just helpful to run through a couple of these big trends, and would anticipate that we're going to see a lot of progress in the next year in this space, just reflecting on progress in the last year. I think we're just getting started here.

Tracy Ring 25:08

Absolutely. Yeah, I would agree. The only closing thing, I would say, is that this really is a new learning loop. So, this is a virtuous cycle. We're continuing to kind of grow and I think much of it is on a continuum. This is the absolute opposite of set it, forget it...we're not ever done. We're continuing to grow and evolve and I expect, you know, when we talk in six months again, you know the story will have some really remarkable examples from those leading from the front and ways that all of the trust and these incredible opportunities to showcase what I think is a great way to deliver better health, will be better and better improved.

Tom Lehmann 25:56

I think you're absolutely correct and look forward to that discussion in six months to see where things stand. So thanks again for joining today, Tracy.

Tracy Ring 26:05

Bye-bye.

Tom Lehmann 26:37

As I bring this conversation to a close, it's clear that AI is transforming businesses and technology, with trust being crucial for its success. The binary Big Bang and cognitive digital brains offer exciting opportunities for efficiency and innovation.

As AI becomes more integrated and widespread, maintaining a consistent brand personality in customer interactions is vital. These technologies had incredible potential, and thoughtful navigation of these changes will help us harness the full potential of AI-driven reinvention.

If you enjoyed this episode, be sure to leave us a review and subscribe on your favorite podcast platform so you don't miss an episode.

Until next time...this is Tom Lehmann and this is The Lens.