Top 20 Trends and Predictions for AI and Language Processing in 2026

Start Time	Speaker	Transcription
00:00:00	DION	Hello, everyone, and welcome to our presentation today. Uh, my name is Dion Wiggins.
00:00:04	DION	I'm the CTO and one of the founders of Omniscient Technologies. I'm joined by Professor Philipp Koehn.
00:00:10	DION	Um, he'll be speaking on a range of topics today collectively with me. We also have a special guest speaker who's prerecorded because he's in Australia.
00:00:20	DION	Um, and it's about 3 a.m. there right now. Doctor Joseph Sweeney, who's an industry analyst in a topic called “The Future of Work”, and he works for a company called IBRS.
00:00:33	DION	So he'll be having his thoughts and sharing them with you. Today's topic is top 20 Trends and Predictions for AI and Language Processing in 2026 and beyond.
00:00:43	DION	And we have a very rich set of topics today. Um, but we did something interesting.
00:00:48	DION	We thought we'd do an experiment this time around. So, um, nearly every slide has been generated by AI.
00:00:56	DION	So what we did was we prepared the content we wanted to present, and we had AI draw the actual slide itself. And I have to say, I'm quite impressed.
00:01:06	DION	But it did get some wrong. So here's the first one it got wrong.
00:01:10	DION	We tried to do a title for it, and I became a rather good looking black gentleman. Philipp a lot younger and Joe looks rather British, so I'm not sure what happened there.
00:01:21	DION	It picked up images from somewhere else, so it definitely can still make mistakes.
00:01:27	DION	So let's get down to business. We're going to be talking about six main topics today, and we're going to be going through at a very high speed.
00:01:34	DION	Um, so we won't be going into any depth, but we will be making the full slide deck and the full recording available after the call, as well as a full transcript. Um, so we'll be dealing with AI agents in the workplace, enterprise transformation and workflow automation, translation, transcription, multimodal and language processing infrastructure and compute futures.
00:01:58	DION	The Year of Digital Sovereignty 2026 and beyond the hype. The signals that actually matter once you get through all the hype.

00:02:06	DION	Now, when I talk about hype, there is a hell of a lot of it right now. Um, and some of the biggest perpetrators of the hype are actually the big AI companies, Sam Altman and various other people, Elon Musk, Mark Zuckerberg, they're all pushing a hell of a lot of hype.
00:02:23	DION	And, you know, it needs to come down to reality.
00:02:28	DION	So I'll pass this one over to Philipp for the next piece.
00:02:31	PHILIPP	Yeah. So this was like one of these famous things that kind of went viral earlier this year, where predictions were made about how AI is going to take over the world.
00:02:40	PHILIPP	Uh, it was kind of a story mostly rooted in, like, it's just going to get bigger and bigger, and by scaling alone, it's just going to be gigantic and it's going to be self-organizing. And then there's some kind of battle between China and the US.
00:02:52	PHILIPP	And at the end, the agents take over. Um, so that is we're very skeptical about.
00:02:58	PHILIPP	The reality is that AI is a tool. It still has many fundamental flaws and still important to view this as a tool.
00:03:05	PHILIPP	So we control it. So the real risks are more in the area of privacy, data security that it generates fake content misinformation and just also undermines education because everybody's just cheating on their exams.
00:03:19	DION	Okay, so I used to work at a company called Gartner and they had a thing called the Hype Cycle. But, um, I recently redrew it for an article on LinkedIn that I published.
00:03:30	DION	So first of all, you have the big build up the hype. So I've relabeled that as the hill of BS build up.
00:03:37	DION	Then you get to the top and it's peak of hype fatigue. And a lot of companies are at that peak now.
00:03:43	DION	Then you drop down into the landslide of reality setting in. And, you know, a lot of the early adopters of AI have failed.
00:03:51	DION	And you see companies like Duolingo and many others that did very silly things with AI and they got burned. Um, then you get the trough of POC purgatory where we're just testing and trying things out forever, and people are calling this failures.
00:04:06	DION	But POCs are supposed to fail. They're supposed to succeed in some cases.
00:04:11	DION	So it's going through all of those different pieces. Um, then you have the other side, the crawl back to business value.
00:04:19	DION	And finally when it works, everybody goes, yeah, it worked. So what?

00:04:23	DION	Cool next. Because by the time it gets there, it's just normal things.
00:04:28	DION	You know, you might remember when Alexa came out or Siri and everyone was going, wow.
00:04:33	DION	Now today it's just it's not doing much, is it?
00:04:36	DION	Okay. Comparatively.
00:04:37	DION	So things change.
00:04:39	DION	Um, but along with that comes a lot of what we call AI experts or so-called AI experts. You know, a few weeks ago they were doing blockchain, and before that they were doing NFTs and various other things.
00:04:51	DION	So just be careful of those, especially on platforms like LinkedIn that claim that experts. Um, there's a lot of people who are just trying to play the game.
00:05:00	DION	The reality is there are a lot of good people out there. Um, but, um, there's a lot to learn, and even people like myself and Philipp that live and breathe AI, we're learning every single day.
00:05:11	DION	We're making mistakes. We're learning from those mistakes, and we're progressing.
00:05:15	DION	Um, so that the information we share today may be outdated tomorrow in some contexts. Just keep that in mind as you learn, because the information changes constantly.
00:05:24	DION	So with that, I'm going to hand over to, um, our recorded Joe Sweeney. Um, and he's going to speak for 4 or 5 minutes from Australia.
00:05:33	JOSEPH	Hi, I'm Doctor Dr. Joseph Sweeney, research director here at IBRS.
00:05:37	JOSEPH	IBRS is a research and advisory think tank, and we deal predominantly with the C-suite and their direct reports on matters of technology and business investment.
00:05:49	JOSEPH	So we tend to be very, very practical when looking at future trends and we do monitor them.
00:05:57	JOSEPH	When Dion asked me to talk about the trends for the coming year.
00:06:02	JOSEPH	I got a big grin on my face because I love talking about the future, but also I wanted to really call out in this as an opportunity that there is two types of next year projections.
00:06:15	JOSEPH	The ones that you're most you'll be hearing most about are Agentic, AI and this future of this and future of that. They're very technology focused and they're predominantly driven by vendor narratives.
00:06:27	JOSEPH	And, uh, you know, the vendors will put these ideas into the mass media.

00:06:32	JOSEPH	Uh, people read these, they'll get excited, and that will become the trend for the coming year.
00:06:40	JOSEPH	We don't do that.
00:06:42	JOSEPH	We do look at ten and 15 year horizons for when certain technologies will become commoditized, because that's very predictable.
00:06:51	JOSEPH	The rise of generative AI was incredibly predictable over a very long period of time, and we got it within a within a couple of months because it's all economic.
00:07:01	JOSEPH	You can know, based on the progress of a specific type of performance of computing to deliver a specific outcome of computing of technology. You know, when it's going to hit the market, but that's not the same as what the vendors are doing.
00:07:17	JOSEPH	That's not economic modeling. That's market modeling.
00:07:21	JOSEPH	So what we do instead is we analyze all of the questions that our clients are asking us, and we categorize them. We look at everything they're doing on our website, what research they're looking at, why they're looking at it, what their plans are.
00:07:33	JOSEPH	And we bring all these signals together, which gives us really strong insights into what's actually going to happen at the coalface. What are these coalface challenges.
00:07:47	JOSEPH	So the big prediction for 2026. What's the big trend.
00:07:51	JOSEPH	It's a come to Jesus moment on the costs of technology, specifically AI. It's really one of the major drivers.
00:08:00	JOSEPH	And the reason for that is organisations for the last 20 years have been investing quite heavily and at an increasing rate into technology. But quietly, while that was happening, they've also been investing in consumption based technology.
00:08:16	JOSEPH	And we're now at a point where a lot of the vendors are going, we've got AI, give us more money.
00:08:22	JOSEPH	Uh, we've got a legacy piece of technology. Give us more money, otherwise we'll turn it off.
00:08:27	JOSEPH	And so this consumption model has meant that organisations are now really having to look at these costs. And what are they getting from it?
00:08:39	JOSEPH	AI is when it was first launched, the generative AI should say when it was first launched was a very false promise. It was launched too early in many ways and prompt based.

00:08:54	JOSEPH	AI, they don't actually deliver productivity, so the organizations recognize that. And then the vendors have responded with, no, now it's a guy which is, uh, you know, non-deterministic and all these funky words, whether it is or not, it's a discussion.
00:09:09	JOSEPH	Model by model basis. But what generative AI does, sorry, what agenda Guy does is it dramatically increases the cost per business function of those AI services because it's spinning up many, many other iterations.
00:09:25	JOSEPH	And the come to Jesus moment that's happening right now, uh, with many organizations is they're looking at these, they're looking at the IT departments are looking at this stuff, and they're going, we can't float this easily to our management because they're going to say, where's the results? Where are the tangible economic benefits?
00:09:45	JOSEPH	And the problem is we're actually looking at some of these technologies completely the wrong way.
00:09:51	JOSEPH	The other trend that spins up from this is the notion of AI in platform, as opposed to AI as platform. Let me explain.
00:10:02	JOSEPH	Probably about 90% of our clients in the mid-tier space maybe just pushing up into the bigger enterprise space there. Their decisions are now being largely shaped by Salesforce or NetSuite or Zoho or whatever core platform systems.
00:10:19	JOSEPH	We've got Adobe, Canva, they're going to bake AI into the processes of our core systems.
00:10:27	JOSEPH	And we don't need to do much. We can wait until these services become available to us.
00:10:32	JOSEPH	In other words, we will be a consumer.
00:10:35	JOSEPH	Again, it takes us back to that consumption model. So you can see the linkage there.
00:10:40	JOSEPH	but we don't need to do much right now.
00:10:42	JOSEPH	Now that is a trend which is really starting to take off.
00:10:47	JOSEPH	And we do see a lot of the core system vendors bolting on lots of AI services around the outside of their solutions, but increasingly we're seeing them baked into the solution.
00:11:00	JOSEPH	So that's the AI in platform.
00:11:04	JOSEPH	But the big trend that will be, I think, really creating some strong differentiation in the market.
00:11:11	JOSEPH	It's not new models. It's this idea of AI as platform.

00:11:14	JOSEPH	And that's where you have a, uh, a highly architected platform that can use multiple models so that you can choose the most efficient model for the right task, not necessarily as Agentic.
00:11:28	JOSEPH	A big part of this will be orchestration. In other words, taking a business workflow which is known and costable, very important.
00:11:37	JOSEPH	costable and then placing AI appropriately at different locations on that workflow. So effectively, next generation business process re-engineering.
00:11:48	JOSEPH	Yep, we're back to the 80s. Sorry, but that is really a very different architecture.
00:11:56	JOSEPH	And it's at the moment, it's probably going to be the larger organisations that will be adopting this approach, because it does require staffing and it does require a real knowledge of what your business is trying to achieve. Both of those at different, quite difficult issues right at the moment.
00:12:11	JOSEPH	But I do believe that as we commoditize that late, too late, probably late 20s, early 27, that this will become a dominant model and probably will surpass what all the excitement around Agentic. We'll hear about Agentic orchestration or AI orchestration.
00:12:27	JOSEPH	So that would be the next big trend.
00:12:31	JOSEPH	All of it. All of it comes back to being able to show a return on your investment not just of AI, but.
00:12:42	JOSEPH	The entire tech stack.
00:12:44	JOSEPH	Because it is this come to Jesus moment in technology right now. Thank you.
00:12:51	DION	Okay, great. So that was Joe Sweeney.
00:12:52	DION	Um, he's been working with us for a long time. And, uh, you know, I've known Joe for about 25 years now.
00:12:59	DION	Um, and he's always been spot on the mark with his predictions and how he analyzes things.
00:13:04	DION	Um, so next we're going to look at AI agents and the workplace.
00:13:10	DION	So one of the things that's interesting is we hear a lot about AI, slop, cognitive decline, all that kind of t hing. And, you know, some people are predicting a surge of lazy thinking.
00:13:22	DION	And, yeah, you're going to get it. Absolutely.
00:13:24	DION	Um, that is going to happen. Um, and they're going to, you know, you get cognitive anthropy, which, you know, people sort of start losing the ability to think, but AI as an amplifier.

00:13:36	DION	Okay, so at the same time, people who put the effort in and use AI as a cognitive partner. So doing research, asking questions, reviewing the answer, things like that, not just simply taking the answer and saying, yeah, I'll use it as it is, you know, and without even thinking, you know, we've all heard these stories about people who follow their GPS and drive into a lake because the GPS said, go straight ahead.
00:13:59	DION	These are the kinds of people that are on the left where they just trust the technology and follow it, okay? As opposed to people who question it, mine it, carry it on, have a full blown deeper research and understanding.
00:14:12	DION	So these people who can think better, decompose things, do multi-step analysis and critical evaluation. Their results will be amplified substantially.
00:14:23	DION	On the other side, um, you know, a lot of people's laziness will be amplified substantially. And really, that's what it's going to come down to.
00:14:33	DION	Okay, then we have work shifting. So a lot of work is shifting away from human initialize and things are triggering.
00:14:41	DION	Events are triggering. So, you know, an engineering agent is, you know, actively pulling requests during the night, remediating performance regressions, you know, things like this, um, worker's going to become, in many areas, automated.
00:14:55	DION	And that's a really good thing, because it means that while humans can initiate some tasks, a lot of tasks will just be detected. An email arrives and it's an order for a product.
00:15:06	DION	Great. Analyze what product it is.
00:15:08	DION	Analyze the information you need from the customer in terms of color and size and things like that. Process the order and send it out before your human agents even wake up.
00:15:17	DION	Happens overnight in the middle of the night, and these things can happen continuously on an ongoing basis. Now there's many different types of agents um, engineering agents, support, operational and many others.
00:15:31	DION	Um, some of them get interesting when they look at diagnosing and fixing things, but work is going to become continuous, not a series of manual human steps.
00:15:41	DION	Okay, now Philipp and I were debating this one about an hour ago. Um, this is actually quite interesting.
00:15:46	DION	So if you look at the lines, you can see, you know, early on we had logistics agents and finance agents got a bit smarter. Now we have sales agents that are revising and updating CRM.
00:15:57	DION	We have some of those in our toolkit. Okay.

00:16:00	DION	But what you're getting to is the coordination threshold, where a lot of this is no longer needing humans to scale. Humans are still needed.
00:16:09	DION	They're not going away. Um, but they're being refocused.
00:16:13	DION	Um, but humans are linear. The more humans you have, you scale with those humans, whereas machines are not linear.
00:16:19	DION	They can exponentially grow. And so, you know, crossing that threshold is something that at some point is simply irreversibly cannot go backwards.
00:16:30	DION	The output gap is just so wide and so far.
00:16:35	DION	Okay, now this one gets really interesting. Um, organizational memory becomes durable.
00:16:41	DION	Now, Philipp and I were debating this saying, how real is this? Because a lot of people have been talking about this and you've got the old paradigm, you know, people come and go from a company and they take knowledge with them.
00:16:52	DION	You train somebody and they leave. You've got to train their replacement.
00:16:56	DION	But with agents they learn. And with the people that you have, they learn from the agents and the agents learn from the people.
00:17:03	DION	So, Philipp what are your thoughts on this one?
00:17:06	PHILIPP	I mean, we see examples of that in kind of the field that we're very familiar with in translation, where, you know, the accumulation of translation memories, um, just creates a lot of, you know, evidence that the agents then can learn from and then, um, scale on top of that. So not just, you know, the memory of all the translated texts, but also the corrections that were made to the translation systems.
00:17:31	PHILIPP	All that becomes kind of empowering for these models to then pick up from the experience of the humans.
00:17:39	DION	Right. So you can see, you know, day to day activities, the models themselves are learning, and a lot of the newer models are starting to progressively and continuously learn.
00:17:49	DION	They're not just static models anymore. And I'm not talking about Rag or anything like that.
00:17:53	DION	I'm talking about actually the models being updated.
00:17:56	DION	Um, then we have something even more interesting leadership. And this becomes a negotiation between human intent overall and the actual system optimization.

00:18:07	DION	So, you know, the human is more about strategic direction, ethics, exceptions, whereas the optimization is fully automated system level rules, constraints, efficiencies. And it's those things that are taking over.
00:18:20	DION	So humans in many ways are going to move into governance and oversight roles in many, many cases?
00:18:27	DION	Okay. And that's where we head to next, where the human value is the checks and balances and Philipp you had some thoughts earlier on this as well.
00:18:36	PHILIPP	Um, yeah. So yeah.
00:18:38	PHILIPP	And also on the on the next slides, I kind of go into some detail on that. Um, I think it's still important to not fully view this AI as fully automated systems that autonomously make decisions.
00:18:50	PHILIPP	They all require supervision.
00:18:53	PHILIPP	So if you just blindly trust what these systems are building, then you can get into trouble.
00:18:59	PHILIPP	Let me show the next slide. Um, so there are, for instance, all these famous cases of lawyers saying, oh wait, it can do all the case research for me.
00:19:07	PHILIPP	Let me just generate kind of a legal brief. Um, and then it kind of makes up case citations and it makes.
00:19:15	PHILIPP	And if you then submit that to a court, you get into deep trouble. Um, so that's, that's the risk.
00:19:21	PHILIPP	So if you think, oh, it all looks very beautiful, I'll trust it. Um, you, don't notice all the mistakes it makes.
00:19:29	PHILIPP	So it still requires oversight, coordination from a human that still needs to be a human expert in the back that is smarter than the than the machine itself. So if you use it in that way, if you basically use it as.
00:19:46	PHILIPP	Yeah, as some headlines as a replacement of paralegals that do research for you, that you can then check if it's correct, that actually is very, very, uh, enabling for, for higher productivity.
00:20:02	PHILIPP	So, um, yeah, this is in a similar theme that we're building now, these agent workflows, either by kind of orchestrating them ourselves or by kind of having them more dynamically make decisions about which actions to carry out.
00:20:19	PHILIPP	Um, this these are, at this point, still fairly brittle workflows that require a lot of supervision and careful checking. So there's still a lot of questions

		that are currently being asked and need to be answered for these things to be really successful.
00:20:35	PHILIPP	And that really depends on every deployment specifically.
00:20:41	DION	Right. So this was an interesting title.
00:20:44	DION	So as I mentioned earlier, we asked um, AI tools to generate the images and the slides for a lot of the presentation today. So we wrote the content and then said, right, make me images that represent this content.
00:20:56	DION	And they embellish the truth a little bit. I think civilization level is a bit sort of overly dramatic, but it's pretty important as well.
00:21:04	DION	So there is a digital divide that is being brought about by agents that is much more significant than any digital divide of the past. We talked about the speed things can be done and all those kinds of things.
00:21:17	DION	Well, if you can automate, you can do so much more, grow so much more. Your economy is so much bigger, faster, meaner, cheaper, efficient.
00:21:26	DION	All those words if you're stuck back in, you know, the older model doing things manually, you can't move as fast. You can't even integrate with the fast people.
00:21:37	DION	Right? And one of the things that's moving forward is agent to agent, where humans aren't even in the discussion for a lot of transactions.
00:21:46	DION	So this is inevitable.
00:21:49	DION	It is going to happen. The speed is what is up for debate.
00:21:53	DION	Um, it may or may not happen in a big way next year, but the foundations will be set and the performance gap is going to get bigger. The cost savings are going to be huge.
00:22:02	DION	The continuity advantages, you know, compounding. And overall, you know, it is inevitable, okay.
00:22:09	DION	There's going to be a lot of damage along the way. Um, there's going to be a lot of people hurt, a lot of countries hurt.
00:22:16	DION	Um, but it is going to happen, and we need to be in the right places at the right time to take advantage of it.
00:22:23	DION	Okay. So let's look at enterprise translation, uh, transformation.
00:22:28	DION	So, um, by 2028, 90% of B2B buying is going to be agent based, right? No human anywhere, just machines talking to each other, things that are needed.
00:22:40	DION	Okay. It's going to tie these together.
00:22:42	DION	Okay. Procurement is being reprogrammed to say I need something.

00:22:46	DION	Go and find me the best deal. Negotiate the deal up and down and get the best deal for the company based on what you need.
00:22:54	DION	And then buy it without a human anywhere.
00:22:57	DION	Okay, so these are pretty significant.
00:23:00	DION	Okay. Um, so there's going to be an operational shift from periodic correction like we do now.
00:23:06	DION	Like we look at our annual, uh, security policies and various other things and batches and manual checks to just simply continuous. Okay.
00:23:15	DION	It's not autonomous, but it requires far more, far fewer manual points of touch to actually keep it going. And that makes a huge difference.
00:23:24	DION	Humans are still going to be stepping in everywhere, but it's going to be human, not necessarily in the loop, but in the process in certain points.
00:23:34	DION	Um, then we move to the next one, which is from prescribing step by step to defining boundaries.
00:23:41	DION	So here's what you're allowed to work with. Go and work out the best way to do it.
00:23:46	DION	And it will find dynamic, practical workflows. Now we see a lot of agents doing this already making decisions on what to go and find, where to find it, how to get it.
00:23:56	DION	Something's not available. Find a second path, second source, whatever it might be, do it within the compliance and operational constraints and do it automatically.
00:24:05	DION	Okay, these are all things that are happening right now within agents and within workflows.
00:24:11	DION	Okay. Then we get the tempo.
00:24:14	DION	So we talked about this earlier a little bit about the speed. So humans can't keep up.
00:24:20	DION	That's the reality. This automation is going to go hundreds of thousands of times faster than we can.
00:24:25	DION	If you look at banking today with stock trading, they're making transactions in milliseconds and making decisions about those transactions, selling it in ten milliseconds and buying it ten milliseconds later again. Right.
00:24:38	DION	All these kinds of things. So humans are going to be involved still absolutely.

00:24:42	DION	In value judgments, exceptions, interpretation and oversight, but less and less of the hands on. So, you know, fraud is happening rapidly today.
00:24:54	DION	It's greatly increasing. And we're entering an era where new kinds of fraud with AI being driving the fraud with phone calls, where it's your daughter calling you, begging you for cash, or it's somebody, a politician saying something that he didn't even say.
00:25:09	DION	All of these kinds of frauds are happening today, but they're getting faster and smarter and better all the time. And so we need tools that can detect them and work with them and process them faster and smarter and better all the time.
00:25:24	DION	Then we have structural risk. So this is where it gets interesting.
00:25:29	DION	So, you know, the manual workflows are accumulating structural risk over time. The slower response times higher costs reduced adaptability.
00:25:38	DION	They're very rigid. Whereas by the end of 2026 a lot of these gaps are going to become visible between the automated tasks and the compounding advantage that those automated tasks give us.
00:25:50	DION	So there's going to be reduced friction. There's going to be reduced issues.
00:25:55	DION	You know if a widget is not available here, find it somewhere else. Go and get it.
00:25:59	DION	You have these boundaries you can work within. If it happens at three in the morning, who cares?
00:26:04	DION	The machine will handle it. While the manual people are sleeping.
00:26:08	DION	These are the kinds of things that are changing and they're possible today. They're not fully widespread, but they're happening.
00:26:14	DION	And these are the companies that do this are going to have the advantages.
00:26:18	DION	Okay. Then we have new business models.
00:26:21	DION	So if you add all this automation of course you've got brand new business models, end to end automation all over the place. There's no humans that are stopping things because it's 6 p.m. and we have to go home, or we don't have enough humans to process the full load today.
00:26:36	DION	We'll come back tomorrow.
00:26:38	DION	Okay, so with end to end automation, it becomes 24 hours, seven days a week, 365 days a year, just continually operating and scaling.
00:26:48	DION	And when you have cloud, you can scale higher and higher. So start small as your revenues and transactions go up, grow bigger automatically.

00:26:57	DION	Not having to go and find humans which are slower, expensive and so on.
00:27:04	DION	Okay. Then we have a little bit of reality.
00:27:06	DION	It is inevitable. The shift towards automated operation is what I mentioned earlier, but it's not inevitable that humans are gone.
00:27:14	DION	Humans are going to have new roles. Okay, they're changing.
00:27:17	DION	But once a sister demonstrates that continuous adjustment and lower costs are possible, there's no turning back. Everyone in that sector will move very, very quickly.
00:27:29	DION	Okay. And finally, um, automation becomes the mechanism that keeps enterprises aligned with real world conditions.
00:27:36	DION	So today we're doing batch processes. We're taking inventory, we're bringing things in.
00:27:41	DION	Things happen around the world. They happen fast, and they're happening faster in business than ever before.
00:27:47	DION	Right.
00:27:49	DION	All these variables now can be monitored.
00:27:52	DION	And they've happened before. So models have the knowledge the agents are looking at it.
00:27:57	DION	The workflow automations, they're the rule engines are there and it's able to make decisions. Grab something here because in three months there's going to be a shortage.
00:28:06	DION	These types of things can be seen and forecast early with a human manual. Processes don't see it because it was six months between orders.
00:28:14	DION	These are the kinds of things that can happen. So these are realistic things that are happening today and they're happening across industries.
00:28:22	DION	This is not speculative. okay. Let's look at translation, transcription, multimodal and language processing okay.
00:28:31	DION	Language is beginning to become a commodity. Now I'm very careful when I say that it's not a commodity in the traditional sense.
00:28:40	DION	When I say language, I'm talking about language processing.
00:28:44	DION	So translation, interpreting all of these kinds of things, there's still going to be humans in there for a very long time, but there is so much that can be done that does not need humans there that just wasn't being processed before.
00:28:58	DION	Um, we have a customer that receives invoices in about 50 languages.

00:29:03	DION	The machine translates them into one so that the back end finance team can process them, right? Previously, they just couldn't handle those invoices in multiple languages.
00:29:13	DION	We have a customer in Germany. It's called UEFA, where they're taking tens of thousands of videos, transcribing, translating, checking quality and then publishing them to YouTube without a human in the middle.
00:29:29	DION	And they're getting new revenue streams from very much legacy content, 10 or 20 or even 30 year old content. Now, to do it with humans, that wasn't viable.
00:29:39	DION	You're talking $1,000 or more an episode, whereas we're talking a tiny, tiny fraction of that, not even 1%. Right?
00:29:47	DION	For the equivalent. So these are the things we're talking about going forward.
00:29:51	DION	Okay. So this is where we say it's becoming infrastructure where day to day good enough quality.
00:29:58	DION	And it will continue to get better means lots of things can be done. Yes, you'll still need humans for so many areas, but there'll be so many new areas where you don't need humans where language can be processed.
00:30:10	DION	Good example is that most people are using today is meeting summaries. It's just now standard.
00:30:15	DION	It's a commodity okay. Philipp.
00:30:19	PHILIPP	Yeah. So one of the drivers of that is that the success that we have seen with large language models.
00:30:27	PHILIPP	So text models is now slowly advanced into other modalities, uh speech and, and vision and the interactions that people might want to have, not necessarily just with text, but also with speech.
00:30:45	PHILIPP	And the interesting thing about speech is also that there's always much more information in someone speaking than in the written word. So, uh, if you interact with a customer support chat agent on a text basis.
00:30:58	PHILIPP	It might not notice your frustration, but if it could listen to your speech, it does notice these things. So these are kind of the two things where the original text based large language models slowly get advanced into speech modality and visual modality.
00:31:16	PHILIPP	Um next slide.
00:31:21	PHILIPP	Yeah. So this is the one directions.
00:31:22	PHILIPP	So if you add in to these models speech music processing. Um so there's different things you might want to get out of the speech signal.

00:31:31	PHILIPP	So one is yeah just want to hear what someone is saying. So it's still a communication meeting media.
00:31:36	PHILIPP	But then there might also be other things that you want to get out of audio recordings. Um, if you talk about music, if you talk about other kind of recordings, there's various information you want to extract from that that enables then all these kind of possible, um, applications that you see on the right, um, up to kind of generative music production and things like that.
00:31:58	PHILIPP	Next slide.
00:32:01	PHILIPP	And then finally, the addition of video is also interesting because there are so many different things you want to get out of image and video. Famously, image is worth a thousand words.
00:32:11	PHILIPP	Um, if you kind of narrow it down to, um, kind of speech communication. Um, yes.
00:32:17	PHILIPP	There's also a lot of information in the, in the image. Uh, your facial expression, your mouth movements, all that is kind of important to really understand what the intent of the speaker is.
00:32:29	PHILIPP	So again, coming back to the kind of, uh, chat bot for customer support example you need to pick up on, you know, is the customer annoyed? Is the customer happy because you have to respond appropriately?
00:32:44	PHILIPP	If someone calls up and with an angry face, an angry voice says, like, I bought this crap, it doesn't work, then the response can be a chirpy voice. It just says, oh, I'm happy you're a customer.
00:32:53	PHILIPP	Let me help you. Because that just really kind of frustrates the customer.
00:32:58	PHILIPP	Then even more so all this is kind of coming, um, models that are sensitive not just to what is being said, but how is being said and all the additional kind of, um, visual information where that might be representative.
00:33:15	DION	Okay. So this is where we get to something really interesting, and we're doing a lot of work in this space right now.
00:33:21	DION	So the knowledge stops being files and starts to become structured meaning. So we have a range of tools in our platform like “Ask my documents”, where you can upload thousands and thousands of documents or even a hard drive.
00:33:35	DION	And it uses Knowledge Graph and other technologies with embeddings and looks at structured representations, and builds structured representations so that you can do cross format retrieval, cross department retrieval, cross language retrieval, even, and bring all this information back and render it back to the user in whatever form. It could

		be audio, video, text, whatever. Um, you know, I was playing with, um, one of the tools recently from Google and uh, says, hey, let's make a podcast for you out of your query.
00:34:07	DION	So I ran a prompt and said, tell me about digital sovereignty in this context. It says, great.
00:34:12	DION	And two minutes later, I had a five minute podcast with two people talking that in the middle you could actually interact with.
00:34:19	DION	Right. So these are the kinds of things where it's really starting to become structured meaning, and it's able to report on it, manipulate it, render it.
00:34:27	DION	So the multimodal effect kicks in. Um, and it's bringing all this data together.
00:34:34	DION	Then you get human linguists where this gets interesting. So I'm talking to a lot of language service providers right now.
00:34:42	DION	And these language service providers in the past were purely translation. Now many of them have exceeded 50% of their business in doing data labeling and data preparation and getting data ready.
00:34:55	DION	And it's multimodal data. It's not just tagging text, it's going and taking photos and videos and various other things and working with that data.
00:35:03	DION	But they're preparing the data to teach machines or to drive different decisions within machines. And it's no different than having something like an automated, autonomous car driver where it's learned by all the driver feedback.
00:35:18	DION	So it's getting all of this feedback and it's constantly learning to get better and better.
00:35:24	DION	Okay. Then we get to low resource languages.
00:35:26	DION	And this is one of Philipp specialties. But um, you know basically it's starting to bring inclusivity in okay.
00:35:34	DION	Low resource languages are getting new pressure points but they're also getting new tools. So for example, Meta just released a speech recognition model that they claim supports 1,600 languages.
00:35:47	DION	Now that was just not even thought of possible even a year ago. Now, the quality may be up for debate, but the fact that they even have something is significant.
00:35:56	DION	Philipp, do you have any thoughts on this area?
00:35:58	PHILIPP	Yeah, it's still actually surprising how so far a lot of these language models are focused on the high resource languages. Um, clearly, I mean, there's economic incentives.

00:36:08	PHILIPP	There's where the money is in kind of the commercially relevant high resource languages. But, um, yeah, there is so much more that needs to be done.
00:36:17	PHILIPP	Um, people like to interact with these tools in their native language and therefore expanding these models to cover more language. That is definitely a pressing issue.
00:36:27	PHILIPP	So, um, if you look at, for instance, core machine translation, that went actually pretty far at Google Translate now supports over 200 languages. But these language models tend to still support maybe a dozen, maybe two dozen languages.
00:36:39	PHILIPP	So there's still a lot to do to really have this inclusivity and to really then reach out to customers all over the world.
00:36:46	DION	So are you surprised, Philipp, when you saw the Meta's speech recognition model with 1,600 languages?
00:36:52	PHILIPP	Yeah. I mean, that's the kind of effort, uh, that are being done.
00:36:55	PHILIPP	So it's always a bit unclear, um, how good and the quality of these models are across these languages, but definitely the ambition to do that, to kind of move to so many languages is kind of important. And yeah, this is the Meta's effort comes more out of the research division than product building.
00:37:13	PHILIPP	But um, that's where things have to go.
00:37:17	DION	Right? Okay. So let's have a look at our infrastructure and compute futures.
00:37:21	DION	So the old paradigm was really based on short term access. That was cyclical uncertain right.
00:37:29	DION	We now have this new paradigm deliberate multi-year planning predictable access continuous model training, continuous adaptation okay. That builds at a national level, a digital capacity of stability and resilience that just wasn't there before.
00:37:45	DION	Right. You can plan your supply chains, you can plan your various elements, and you can bring that all together and get that rolling forward very, very quickly.
00:37:54	DION	So, you know, by tying that together, nations can shift from opportunistic access to deliberate, multi-year planning for corporate energy cooling, specialized data centers, all of these kinds of things, they can plan in advance their growth. Okay.
00:38:10	DION	And they can, you know, bring that back to real world.

00:38:16	DION	Okay. So there's going to be a centralized cloud obviously.
00:38:21	DION	And we're seeing that today. But um, that's got a problem.
00:38:25	DION	It's got structural dependency.
00:38:27	DION	And a few weeks ago we saw Cloudflare go out.
00:38:31	DION	And when Cloudflare went out, you know, that's one system processes every day or transports every day 20% of the world's internet traffic. So that was a signal outage.
00:38:44	DION	Now the reality is, for a lot of the issues that Cloudflare had, people just hadn't spent a few thousand dollars a year.
00:38:51	DION	And I'm talking people at the size of OpenAI. So companies that big, it's a few thousand dollars a year to have redundancy.
00:38:58	DION	They just decided Cloudflare will never go down. They were dependent on it and it did go down.
00:39:03	DION	It was a single point of failure from a simple bug in their software. Okay, so these things do happen.
00:39:09	DION	So we're going to see a lot more public and private systems rely on a handful of global providers. Their risk is going to increase misconfiguration outages policy shifts all that kind of thing.
00:39:21	DION	Um, you know, it's not currently presented as a catastrophe. It's, you know, but it should be.
00:39:28	DION	Um, and organizations have to respond to this, and you're going to start to see a lot of that happening where organizations start to move beyond simple one risk places.
00:39:39	DION	Um, so there's architectural independence as a practical requirement.
00:39:44	DION	Okay. Where things are broken up.
00:39:46	DION	Public cloud, private cloud, a lot more on premise and edge level. Our webinar that we had a couple of weeks ago, we talked a lot more on premise and edge level.
00:39:57	DION	Um, so if you missed that, please go to our website and have a look. You'll be able to, um, look at the slides in the video from last time.
00:40:04	DION	Um, then you have, um, a lot more predictability. Um, you know, the current environment is very powerful, but way too rigid and way too fragile.
00:40:14	DION	Okay. We're going to see compute blocks emerge.
00:40:18	DION	Okay. So, you know, you've got the advanced block a fabrication and governance.

00:40:22	DION	All of that's there.
00:40:24	DION	Okay.
00:40:25	DION	Then you've got, you know, B and C energy abundance. And this is one thing that China has done really really well.
00:40:31	DION	They are way ahead on the energy curve. Uh they're producing I think it's about 40 times more energy from memory.
00:40:38	DION	Don't quote me on that. Then America is right and its cheap energy.
00:40:42	DION	But they did one thing smart.
00:40:45	DION	They looked at where they were producing energy across China. And this is over 15 years ago.
00:40:50	DION	And they started building out data centers where the energy is. It's a lot cheaper to run fiber than it is to run electrical cables.
00:40:58	DION	And as a result, they have huge data centers in the right places. Low, low cost energy.
00:41:05	DION	And they're able to do things at an extremely powerful level, whereas Europe and America are going to have a energy deficit and they have to build, whereas China already has more than enough capacity. So, you know, there's some interesting things happening in China in many areas.
00:41:24	DION	Okay. Finally, um, physical resources as a limiting factor.
00:41:28	DION	So power is obviously a big one that I just mentioned. But cooling.
00:41:31	DION	Keeping it cool. Now you're seeing a lot of silly hype right now from Elon Musk and others.
00:41:38	DION	Oh, let's make data centers in space.
00:41:40	DION	I mean, it's silly stuff, right? The reality is it can be done on land and it can be done in the right places, but it has to be planned properly.
00:41:48	DION	And right now, the data center building in America is exceeding all building in America that isn't data center related. So just data centers alone.
00:41:59	DION	And it's just silliness because as IBM's CEO said just a few days ago, there's no way that they're going to get their return on investment. It's just not practical.
00:42:08	DION	So, you know, you have this imbalance, these physical constraints, but they're charging ahead anyway.
00:42:15	DION	Okay. Um, so we're going to look at digital sovereignty now.
00:42:19	DION	Um, so the year of digital sovereignty is 2026.
00:42:23	DION	We're going to see, first of all sovereignty metrics.

00:42:27	DION	Okay. We're going to look at some of the traditional ones okay.
00:42:30	DION	And that's still going to be their GDP debt all that kind of stuff. Um, we're going to look at financial, all of that sort of stuff, but we're going to look at things like identity control, data residency, compute independence, model autonomy, and cloud exit feasibility.
00:42:48	DION	How can you move from one cloud to another? What are your scores?
00:42:52	DION	Okay, so I'm currently working on a book called “The Digital Sovereignty Imperative”. And it's looking at a lot of these metrics that will be out sometime next year.
00:43:01	DION	But it's just fascinating studying all of these angles and how that today there are no metrics. But it's definitely coming.
00:43:08	DION	So national digital sovereignty is going to become a big deal.
00:43:14	DION	Um, the political economy of AI is shifting. Um, there's a lot of things going on in America right now.
00:43:20	DION	Uh, Donald Trump announced yesterday he's going to be making some big AI policy announcements. Um, most of them are going to be around regulation or lack of regulation.
00:43:29	DION	Um, there's, you know, the US just announced recently the Genesis mission, um, which is pretty impressive, but pretty scary at the same time. Um, so it's no longer about how fast we can adopt AI.
00:43:43	DION	The new question is how safely we can adopt it. And that's going to be very, very important.
00:43:49	DION	Now there's going to be a lot of legal issues. And you see in Europe, the UAE act and all those kinds of things. There's going to be a lot of sovereignty stress testing.
00:43:58	DION	But there are big challenges like the US Cloud Act is a big challenge. So, um, China has something very similar where, um, in the US case, if you're an American company overseas, um, the US government can request the data of your customers and you're not allowed to tell your customers.
00:44:16	DION	So these are the kinds of things that are pretty scary and pretty dangerous, okay. And they cross jurisdictions.
00:44:22	DION	So, you know, just be aware of a lot of these things okay. Sovereign identity.
00:44:29	DION	This is one of the biggest issues. So identity is in the middle.
00:44:34	DION	Okay. And it governs everything you can do.
00:44:36	DION	You can lose your identity and lose access to everything. I know this personally because I lost my digital identity a few years ago when Google

		decided that I was a bad actor for commenting too fast on my own blog posts.
00:44:51	DION	Right. And it took me three weeks to get it back.
00:44:54	DION	And I had to fight a machine.
00:44:56	DION	No human anywhere.
00:44:58	DION	Israel just found out about it.
00:45:00	DION	Microsoft Azure shut down the Israeli military, a big division, um, equivalent to the NSA in America, and kicked them out without any notice. Just kicked them off because, uh, they eventually had too much pressure.
00:45:17	DION	They made a boardroom decision. Um, and they shut that division out because of things that are going on in Israel and Gaza.
00:45:24	DION	So, you know, these things happen and you lose control. Your identity controls all of this.
00:45:31	DION	Okay, now, nations with compute independence.
00:45:36	DION	That's where it gets interesting. Without it, you have a big problem.
00:45:43	DION	Okay. You've got all these kinds of issues.
00:45:46	DION	Okay?
00:45:47	DION	You're being controlled. You're becoming a rent paying country, right?
00:45:51	DION	You're not developing models. You've got data centers owned by big AI even if you're in developed countries.
00:45:58	DION	So for example, a lot of developed countries right now are doing deals with OpenAI and various others for billions of dollars, but they're actually setting them up as a rent paying futures.
00:46:09	DION	Um, and then you're getting a few things that I'm not in big favor of, like, for example, OpenAI going into India and saying, hey, India, we're going to give everybody free access to ChatGPT for a year.
00:46:21	DION	Now what does that do? Sounds great.
00:46:23	DION	Giving everyone access for a year, but it just wiped out every single start up for AI in India. They can't compete with free.
00:46:30	DION	Now, in a year's time when everyone's on the drug, of course. Hey, now you have to pay.
00:46:36	DION	So it's an investment from open AI to basically wipe out the competition and get market share.
00:46:43	DION	There's no love here. This is all business.

00:46:45	DION	Okay. And that's where it gets pretty interesting.
00:46:50	DION	Okay. So you are going to get a digital nation state platforms regional specific AI platform.
00:46:56	DION	So China's got theirs for example. Um India is building out their own in a big way.
00:47:02	DION	Um, you've got us, of course, pushing its things on many places around the world, and you also have hybrid ones as well. Okay.
00:47:10	DION	But there's a lot of competition and it's building up. And China's banking on that.
00:47:14	DION	So their GPUs now are shipping in over 40 countries directly competing with Nvidia. And their latest GPUs are on par with the top Nvidia GPUs.
00:47:23	DION	So, you know, the barrier is gone for the most part. They still have a lot of production sort of capacity issues compared to the West.
00:47:30	DION	Um, but that's just a matter of time to solve. I mean, they're confident that they're pretty much banned now.
00:47:36	DION	Nvidia out of China.
00:47:38	DION	So Donald Trump today says, oh you can now sell Nvidia back in China. We don't need to block you anymore.
00:47:44	DION	You know it doesn't matter anymore. Time has passed and China has their own.
00:47:48	DION	So you know it's moved on. Um, but you're going to see these ecosystems of tax customs licensing and public service delivery all around the world, and they'll be separate ecosystems.
00:47:59	DION	Okay.
00:48:00	DION	Now, this is a term that Gartner recently invented. Um, Geopatriation.
00:48:06	DION	Now, I'm not a big fan of the term, but the meaning is interesting. So basically, a lot of companies and a lot of organizations are moving things back out of the cloud and back into, um, you know, their own data centers or their own sovereign countries.
00:48:21	DION	Now be careful of sovereign clouds. Most of them are labels and are not reality because of, you know, AWS is still governed by the Cloud Act, for example.
00:48:30	DION	So Microsoft recently admitted in a French court that if the American government asked for the data, they would have to hand it over.
00:48:37	DION	So these are things that you have to be aware of. This is why Geo patriation is happening.

00:48:43	DION	People are moving things back into jurisdictions where they don't have control by another nation.
00:48:49	DION	Okay. Um, we're seeing major movement between, um, you know, begin to bring things home out of US controlled data centers and bringing them back in.
00:48:59	DION	So moving away from foreign AI now, Mistral. Ironically, the latest Mistral is very interesting.
00:49:05	DION	They have a chance to do something very, very important. So they're not Chinese number one.
00:49:10	DION	And they're not American number two.
00:49:13	DION	So if you can break away from those two platforms constraints, you have something very special. Shu and Mistral has some huge opportunities.
00:49:22	DION	They can become the equivalent of the Red Hat of AI and AI models specifically. So there are very, very interesting position if they execute things properly right now.
00:49:35	DION	Now we're seeing a parallel movement for de cloud. So that's the geopatriation.
00:49:40	DION	Again moving things back to automated orchestration in sovereign compute clusters often shared. So it's ironic, you know, when I first started, um, you know, working I was working on bureaus with big mainframes.
00:49:53	DION	We're sort of going back into that direction where somebody else owns the hardware, and we just license a slice of it.
00:50:00	DION	So then the biggest challenge is the rent seeking. So you take in, you know, $40 billion worth of data center and from open AI and you go, yay, this is wonderful.
00:50:10	DION	And for a year or two it is.
00:50:12	DION	And then suddenly they say, now you need to pay.
00:50:15	DION	Now you need to pay more, And now you need to pay more. And by the way, we're going to start putting ads in it as well just to milk more money and so on and so on.
00:50:24	DION	Right. So just be very careful if you're involved in this space of the rent seeking okay.
00:50:32	DION	And the last section before we go to questions, um, we'll probably run the, the presentation up to the end of the hour. And if anyone's got any questions, they can hang around at the end and ask them.
00:50:42	DION	We're just a little bit tight on time.

00:50:44	DION	Okay. So the systems that matter will not be visible.
00:50:49	DION	A lot of the systems are going to be hidden away behind the scenes pipelines monitoring, policy enforcement, integration work, all those kinds of things. And of course, the reliability layers, um, you know, sure.
00:51:04	DION	We'll see the ChatGPT of the world and we'll see, you know, the series and the, you know, those kinds of things. Everybody will see that.
00:51:11	DION	But the stuff that's doing the real hard work, you know, think of it like global shipping.
00:51:17	DION	We don't see the ships, we just see the products when they arrive in the stores.
00:51:21	DION	And similar things going to happen here. Philipp, do you have any thoughts on this one?
00:51:29	PHILIPP	Um.
00:51:33	DION	I guess I threw him under the bus. There we.
00:51:35	PHILIPP	Go. No, no, I kind of got.
00:51:36	PHILIPP	Caught up in something else.
00:51:37	PHILIPP	Sorry.
00:51:40	DION	No worries. Um, we'll jump to the next one.
00:51:43	DION	Okay, so, um, the advantage is going to shift to continuous operations. We talked about that earlier.
00:51:49	DION	Waiting for human cycles is going to be, in many business use cases, a thing of the past. It has to be automated cycles continuous continuously learning, not waiting to be fed.
00:52:01	DION	Data continuously acting not waiting for a human to trigger it.
00:52:06	DION	Okay. Um, then we have constraints.
00:52:09	DION	So energy compliance, data safety. reliability, all of these things.
00:52:15	DION	So, you know, there's a lot going on here. And these constraints are going to slow us down in a big way.
00:52:21	DION	Um, you know, if you don't have the energy to run your data centers and some of these data centers are running, you know, the level of small nation's energy consumption, they're absolutely insane. Um, you know, these things slow you down.
00:52:33	DION	The EU is being slowed down to some degree, and I'm actually not against that because the EU AI act are thinking about it a bit more, whereas

		America is saying no regulations, let's go and people are getting burned. IP is being stolen.
00:52:47	DION	Many things are happening. Um, so, you know, it's not all good.
00:52:51	DION	It's not all bad either.
00:52:53	DION	Um, then we have system performance, okay. And this is going to start overtaking model performance.
00:53:02	DION	So right now we've been very focused on making bigger, better smarter models okay. These are not the way to go right.
00:53:08	DION	We've got benchmark saturation benchmark for the sake of benchmarks, and in many cases, the benchmarks are just getting silly. And they have to do new benchmarks because, you know, it's just recall in many cases, because a lot of these models are purely just predictive and statistical.
00:53:25	DION	Um, so we're looking much more at system centric views, um, well-designed systems. And this is where a lot of humans are going to come in higher skills, but highly designed, well-designed systems that can adapt quickly, that are observable.
00:53:40	DION	And that's key.
00:53:42	DION	Um, the evaluation of discipline can be seen workflow coherence governed properly. So governance is tied in okay.
00:53:50	DION	All of these things are hard but they're getting easier and they're getting smarter.
00:53:57	DION	Okay. Then you have the external realities the narratives, the junk, the hype.
00:54:04	DION	Right?
00:54:05	DION	Okay. You know, if you look at the hype and Philipp talked about this with AGI and various things.
00:54:12	DION	It's way over the top. A lot of that's going to start disappearing, and you're going to start to see resilient outcomes.
00:54:18	DION	You're going to start to see facts. You're going to start to see all these pieces coming through.
00:54:24	DION	Now, last a couple of weeks ago, we talked on the webinar about, um, you know, all the failures and, uh, the MIT study that says 95% of all all AI doesn't deliver ROI in six months. Well, you know what?
00:54:37	DION	Most systems and most projects don't deliver ROI in three years. It's normal.
00:54:44	DION	Right? But they pick a number and they hype it.

00:54:47	DION	Right? But the reality is that means 5% are delivering ROI in six months.
00:54:52	DION	And that's incredible, especially when you put the numbers in. So we did some math, and about 1.8 million projects globally have delivered significant ROI in six months.
00:55:04	DION	Yet the noise is all about the failures because there's about 36 million that failed, and a lot of them deserve to fail. Or were POCs to begin with.
00:55:12	DION	But the fact that you can have 1.8 million projects with huge early ROI within six months is a massive success. It just depends on which side of the coin you want to look at it.
00:55:24	DION	Okay.
00:55:25	DION	And then we're looking at the bubble. Now I'm looking at the bubble in a different way.
00:55:29	DION	So yeah you can look at the circular investment and all that kind of thing. Um, but I'm looking at the operational bubble, okay.
00:55:38	DION	Where we're going to get excess capacity in some things, we're going to not have enough in others. Um, but there's a widening gap in, in the structural space.
00:55:48	DION	So getting it organized, okay. What organizations can integrate things and bring together.
00:55:53	DION	So there's going to be signal collapse, right. Um, and you know, but it's not overall, um, you know, how do I say this?
00:56:03	DION	It's not saturation, but you're going to have a lot of noise that's going to go away. You're going to see all that signal disappear.
00:56:10	DION	Okay. Um, I don't think in the near term we're going to have the bubble.
00:56:15	DION	People think we will in certain contexts. I think big AI has got some big bubble awakenings coming to them.
00:56:22	DION	But because of the number of successful projects that you just don't hear about, I think actually the bubble is going to have far less impact than people think.
00:56:31	DION	Sure, you're going to see big AI, and anyone who's dependent on ChatGPT or Google Gemini get hurt when the bubble pops and it will pop. But there's a lot more stability below the bubble than most people realize.
00:56:46	DION	Okay, so the real projects are going to become clearer as the noise floor rises, okay, you're going to see them. Their value is not rhetorical, okay?
00:56:55	DION	It's observable and you're going to see it. So 2026 is going to be the year that we actually see real results.

00:57:02	DION	And like I said at the beginning, it's going to be. Yeah.
00:57:06	DION	So what?
00:57:07	DION	Because it's not exciting anymore.
00:57:09	DION	These things like Siri that were really cool when they first came out are nothing's anymore. Siri's outdated now, right?
00:57:17	DION	It doesn't work as good as other tools. Simple as that.
00:57:21	DION	Okay, so we actually finished with two minutes to spare. So if you have any questions, um, please drop them in the chat.
00:57:28	DION	Or you can email myself or Philipp by mailing "**sales@omniscien.com**". Um, and we'd be happy to answer you later on.
00:57:35	DION	But if you've got questions now and there's a lot of stuff here that we walked through, um, the slides will be available later. Um, in addition to that, um, the recording and the transcription will be available.
00:57:46	DION	It'll probably take 1 or 2 days before we get that up online, but before the end of the week.
00:57:50	DION	Do we have any questions?
00:57:58	DION	Okay. We've got some messages coming in.
00:57:59	DION	Let's have a look.
00:58:03	DION	Okay. Um, so.
00:58:10	DION	Okay. What changes do you think will AI do in academia?
00:58:14	DION	Philipp. Do you want to have a crack at that?
00:58:16	PHILIPP	Yeah, that's.
00:58:17	PHILIPP	A really interesting question. So because a lot of the AI tools are out there can also be used for academic research, like finding related papers, summarizing research papers, figuring out like, given this kind of set of dozens of papers, what's new, what's in common, what hasn't been done, what has been done.
00:58:34	PHILIPP	Um, there's a lot of excitement currently about. Yeah, the role that it plays in in research and then also clearly in education, like how do we have to change our education system now that these tools are around, just like when calculators came up and people used to calculate instead of adding up numbers in the head.
00:58:52	PHILIPP	So, um, some skills are becoming more important and some skills might become less important.
00:59:01	DION	Okay. And, um, we had a question about, um, linguist jobs.

00:59:06	DION	Um, so I think linguists are going to have a really big role here. Um, you know, not just in, um, the, you know, tagging data.
00:59:15	DION	I think there is an ongoing job at the top in no matter what for really smart linguists. Um, maybe the lesser skilled, more junior ones are going to find it harder.
00:59:26	DION	But I think that's going to happen in many spaces where AI is addressing things. And I think we've seen that in employment opportunities at entry level.
00:59:34	DION	Um, I personally think that's a mistake because you're hollowing out companies. Um, but, um, Philipp, what do you think about linguist jobs and future?
00:59:42	DION	Where do you think they're going?
00:59:44	PHILIPP	Yeah, I mean, this is the first year I heard that, uh, yeah, the number of translators might actually go down. And so far the idea was always you have higher productivity.
00:59:54	PHILIPP	So therefore if more demand and therefore you have more demand also for humans, even if you know they're more productive and they get more done. Um, so it all means that like, like everybody in this world, uh, you probably need to kind of upgrade your skills.
01:00:10	PHILIPP	So there's still jobs for translators, for instance, and specialized domains, but general purpose, where things just have to be good enough that might actually go away. And that's true for everybody else.
01:00:21	PHILIPP	So if there is more productivity than expertise comes even more premium.
01:00:28	DION	Right. And um, what type of data prep jobs are going to be around?
01:00:32	DION	What do you think?
01:00:34	PHILIPP	Oh, that's uh, that's a it's a very broad topic. Um, I think there's increasing finally, awareness that the data that you feed into these models, sometimes it matters really very much what the quality of the data is.
01:00:51	PHILIPP	Um, so not just throwing in every junk you have, no matter how bad it is, it's going to be successful.
01:00:58	PHILIPP	Um, so we have seen this increasingly that you really you get much more advantages of training on small sets of really clean and embedded data versus large sets of very noisy data.
01:01:09	PHILIPP	So being involved in that pipeline is probably important.
01:01:15	DION	Okay. And, um, another one just come in.
01:01:17	DION	Uh, is there any synergy between video AI and language AI?

01:01:22	PHILIPP	Uh, yeah. Uh, I mean.
01:01:24	PHILIPP	Up to the point that they're now using exactly the same model architecture. So even video is now using transformer models.
01:01:32	PHILIPP	Um, I mean, these all used to be fields that are very, very different in the past, you know, in video, you cared about, you know, line detection, geometric models and rendering and all that. And now everything is going the same kind of generative AI training on lots of data kind of pipeline.
01:01:48	PHILIPP	So yeah, there's a lot of synergy and there's a lot of related questions you have. And it goes both ways.
01:01:54	PHILIPP	You know, sometimes you need image to help language. Like I've talked about facial expressions that I understand what people are trying to say, but also the other way around.
01:02:01	PHILIPP	Language helps in generating images by kind of more clearly specifying what you actually want in the generation task.
01:02:10	DION	Okay. And one from me.
01:02:12	DION	What do you think is the future beyond transformer? What's coming next?
01:02:18	PHILIPP	Um.
01:02:19	PHILIPP	There is uh, various talk about like, state space models. I heard other models that are more inspired by how the brain really works.
01:02:29	PHILIPP	Um, yeah.
01:02:30	PHILIPP	We might be stuck at the moment a little bit with transformer, because a lot of things just gets optimized in the entire software stack towards them. So it's kind of really hard to make a change now, but there's definitely a lot of interesting ideas out there.
01:02:43	PHILIPP	Um, so for instance, one of the fundamental problems of transformer model is that certain things like attention mechanisms, scales quadratic with the length of the sequence and that gets very, very expensive. So doing away with those kind of things and just basically optimizing for speed and efficiencies that might happen within the transformer paradigm, it might also be done quite differently in the future.
01:03:07	DION	What about reasoning? How do you think that fits in?
01:03:11	PHILIPP	Yeah, I mean, that is I mean, that doesn't change the architecture of the model. It's just how you use it.
01:03:15	PHILIPP	And that's the whole reasoning wave. And then the agent wave all go around like how do you actually use these tools.
01:03:23	PHILIPP	So at the end of the day, uh, the GPT model is just that. It's a model that has certain capabilities.

01:03:30	PHILIPP	But there are other things that maybe traditional computer science methods can do very well. So if it comes up like multiplying lots of numbers, maybe that's not something a language model should do, then maybe that's sort of something that traditional computer science algorithm should do.
01:03:44	PHILIPP	So balancing between them and uh, yeah, reasoning also involves a lot like feeding it the right information at the right time.
01:03:53	PHILIPP	So there's a lot of connection with kind of other, you know, uh, existing components in a workflow that are, yeah, still very difficult to then really figure out for every particular use case what you have to do.
01:04:09	DION	Right. Okay.
01:04:10	DION	And, um, we've got a couple more. Come in.
01:04:12	DION	Um, so you mentioned that the language model, uh, should be or is already learning. I assume this process should continue indefinitely.
01:04:21	DION	Considering automatic translation, how can we secure confidential data in corrected translations are to be returned to the LLM?
01:04:30	DION	Do you see a place for an intermediate process anonymizing, or are we forced to use separate dedicated LLM storage?
01:04:39	PHILIPP	Um, there's a lot in that question. So yeah.
01:04:41	PHILIPP	So there's that's a big one. Um.
01:04:44	PHILIPP	I mean, the situation already right now is that you have these large pre-trained models and they will get built even by the big companies only like once or twice a year.
01:04:53	PHILIPP	And then all the interesting stuff comes afterwards.
01:04:56	PHILIPP	And there's a lot of modularity there. So you can adapt the models in many different directions.
01:05:01	PHILIPP	Sometimes you can then add these modifications together, sometimes not.
01:05:07	PHILIPP	Um, yeah. Any data you feed into.
01:05:10	PHILIPP	And if it's trained on your company's data, you clearly want to have those modifications separate from, you know, any kind of model that is publicly available. And you have to be very careful about that.
01:05:21	PHILIPP	No, there's no like data leakage by kind of querying the model and then revealing information that you don't want it to reveal.
01:05:28	PHILIPP	Um, yeah. So there's a lot of modularity. Sorry.
01:05:34	PHILIPP	In in the how you use these models.

01:05:37	PHILIPP	Right.
01:05:37	DION	And I'll just add to that. Um, you know, a lot of the models are Mistral, um, DeepSeek, Qwen, Llama, etc..
01:05:48	DION	Right? specifically designed to allow you to extend or to extrapolate data and make smaller models from refactoring and things like that.
01:05:58	DION	So, um, the future in many ways is not large language models. It's small, specialized language models that are really focused on tasks.
01:06:06	DION	And, um, just a few days ago, DeepSeek released a specialized language model specifically to do very, very complicated math as an example. Now you can then pair that with various other models to.
01:06:20	DION	So when the model needs math it can call, you know, different layers of experts or different layers of models and do that work. But um, just adding to the final um answer here, um, bringing it back home.
01:06:34	DION	Um, this is where, um, a lot of these models are downloadable and they can be adapted with relative ease now for customers to keep them up to date. But what's going to be interesting?
01:06:45	DION	And this is where I don't see a definitive pattern yet, is do we have to run for 1,000 customers, 1,000 models and keep them learning independently? Or is there something that we can put around it as a layer in the middle?
01:06:58	DION	So I've yet to see the answer to that one, but maybe Philipp you have.
01:07:05	PHILIPP	Yeah. I don't have any kind of further comment to what I said before.
01:07:09	PHILIPP	I did want to make a comment on what you said earlier about the bubble. So there's clearly kind of an AI bubble in kind of valuation of companies and, and kind of dreams of trillion-dollar companies.
01:07:21	PHILIPP	And it's all very, all very reminiscent of, uh, we're old enough to have lived through the internet bubble, which was also a tremendous bubble, which ended in like complete collapse of various companies and, and stocks. But at the end of the day, I mean, the internet turned out to be somewhat useful.
01:07:37	PHILIPP	And it's been around and I think there's a very similar situation with AI that maybe AI will go out of. AI will go out of business in a year or two, but AI will stick around.
01:07:48	DION	Absolutely.
01:07:48	DION	And I think that's a great place to close on. So thank you very much for your time today, everyone.

01:07:53	DION	This recording will be available in a couple of days. Um, the slides will be available too, and so will the transcription.
01:07:59	DION	Thanks for your time. Um, we look forward to seeing you next year on our first webinar in January.
01:08:06	DION	Until then, um, if you want to contact us and learn more. Um.
01:08:09	DION	I'm **dion.wiggins@omniscien.com**
01:08:11	DION	You can also reach me and Philipp at **sales@omniscien.com**
01:08:16	DION	Um, they'll both arrive and the sales team will share the messages on, uh. Thank you very much for your time again.
01:08:23	DION	And, uh, we hope you all have a great new year. Okay.
01:08:26	DION	Bye for now.