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TechnoVision 2024 pt 1:
Augment ME! with Ron Tolido,
Capgemini

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[00:00:00] Which is an interesting point, actually. Spoilers on TV shows, what's the expiry date when you can talk to people about a TV show they haven't watched and spoil it for them? Six months, a year, two years? Because there's got to be an expiry date on where you've got to be allowed to talk about it, right? There's still people shocked about the Red Wedding in Game of Thrones, or or the beheading of Ned Stark. Yeah, that's right. Oh, sorry about that. Sorry about that.

Welcome to Cloud Realities, a conversation show exploring the practical and exciting alternate realities that can be unleashed through cloud driven transformation. I'm David Chapman. I'm Sjoukje Zaal, and I'm Rob Kernahan.

[00:01:00] And this week it's TechnoVision time again. We're going to be talking about TechnoVision 2024, which is Capgemini's annual take on technology trends. It's going to be a two part episode. In this first part, we're going to talk. To the leader of TechnoVision Ron Toledo, and Ron is going to take us through the core themes of this year's TechnoVision as well as we're going to have a discussion about the trends themselves and how all the trends interact with each other.

We're going to talk to Robert Engels and dive deeper into the conversation of the moment, which of course is AI, but actually how AI interconnects with the data of an organization and what needs to be done there. But before we get to that, happy new year to everybody listening. , it is good to see you.

We are back Rob, Sjoukje. Did you have a good Christmas? Yeah, it was all right. However, far too many family members descended on me and then they were here for about four days. I'd like to say that house guests are a bit like fish. They go off very quickly. So, um, there was an intensity I had to deal [00:02:00] with in the middle.

However, either side of it, very relaxing. Very relaxing, yeah. Your tone, your tone really communicated a lot there, Rob. Yeah, the enthusiasm about the festive period. Welcome back to the show, everybody. Rob's here. It's my New Year's resolution, be more grumpy. Compared to that, I had a very boring, boring Christmas period.

What is wrong with you two? But very restful. That, that was a really good thing. Yeah. So what did you get up to? What was your highlight? Highlight? Playing lots of games. Yeah. Which one? Um, I finished Call of Duty, the new one. Right. Alan Wake. Oh, yes. I want to play that one. Alan Wake looks cool. And I started God of War, but still in the middle of that.

Rob, what was your highlight? My highlight? I think you're going to expose my average Christmas here, Dave. Pair of socks and a bottle of whiskey, that'll do.

Very traditional, I would say. Very traditional dad Christmas, I think you'd say. Yeah, yeah. Well, my highlight was I went to see [00:03:00] The Stranger Things. in London. Oh, does not play on from the, the last series, series four is a bridge between four and five, but also prequel to the spoilers. Dave, no spoilers. No, I wouldn't make that up.

No, I, I'm a professional broadcaster, but it's really good. Like if you, if you're in a city where that. That , that play pops up and you're into your stranger things , good from a story point of view. The bridging's interesting the way they do it, but also just the production of stage shows these days, man, absolutely unbelievable.

There's a section at the end. I won't spoil. There is a section of the show that almost goes into slow motion. It is really, really impressive anyway. Highly recommended, but let's get back to the main subject of today's show. Um, I'm delighted to say that we have a Ron Toledo with us. Ron, good to see you.



How are you doing? I'm doing pretty well and I'm glad you didn't ask me about my Christmas because it was equally boring, but not very [00:04:00] relaxing as well. I don't know what it is. When we do TechnoVision 2025, I think we all need to take a little New Year's resolution to up our game this Christmas.

You're too rock and roll for us, Dave. You're clearly a cut off on the excitement of your life. We couldn't handle it. I'd be like No. White knuckle Christmas, Dave Chapman. Anyway, Ron, great to see you. Just want to say a little, a little bit about yourself. Just introduce yourself and tell us about TechnoVision 2024.

Just set the scene. Yeah, I'm Ron Toledo. I'm a CTO for Capgemini's Insights and Data Global Practice. And next to that, I've already been engaged now for 17 years, with a very interesting team, creating our yearly edition of TechnoVision which is our, our trend series that, that we publish, in January every year. containing 37 trends. But nowadays it has become a brand name for a whole series of publications, which includes sector playbooks and executive guide, an application guide and [00:05:00] so on. Um, so, so that is, that's a little bit of a side job if you like, but sometimes it feels as a main job as well, because it brings us, on the, on the table of, of many different organizations discussing technology trends.

We talked about TechnoVision 2023. Incredibly a year has gone past, a year that has seen. As we, as we, I think we talked about at the time, an unprecedented level of innovation in some ways and maybe in some other ways. , not so much. I wonder what your reflections are on the, on the year and where your head was at going into pulling together TechnoVision 2024.

Well, you see, it was an unprecedented year, right? Um, it's, it's no secret that the whole generative AI thing sort of, sort of made a massive breakthrough at the boardroom level. And, and I particularly liked that impact of, of this whole thing. It's not necessarily the generative AI itself, which. Of course, afterwards, we will see it as a smaller part of a [00:06:00] bigger evolution and a, let's say, a search of different technologies coming together.

But the thing is, it put technology, innovative technology, back on the boardroom agenda. And that is what I think is particularly what we've seen last year. And to put it on the agenda doesn't necessarily mean you're already executing on it. So I consider 24 very much a year of the truth. Will we actually operationalize?

A lot of the potential that everybody has seen, almost too many people have seen too much potential. I think before, just before we move on from the point you made there, um, I think that point about the boardroom is, is actually, is, is very, very good. And to me it, it's similar to the pandemic in a way. So like, I think what we've seen in maybe the last three or four years is two major events happening, obviously completely.

Unconnected, I assume they're unconnected. Um, you never know in this world, but yeah, let's say that they are. Um, it is the pandemic. I think [00:07:00] walk boardrooms up to not just the level of technology evolution that happened, probably over the 10 years that preceded that where boards, let's face it, were much more interested in managing the cost base of I.

T. Than they were the technical evolution of what they're doing in their organizations. And the pandemic was a wakeup call on that. Respect and started to drive it at maybe a slightly different conversation about tech and then as you say Jenny I comes along which is almost like an unprecedented step in technology to sort of underpin that conversation does that does that resonate with you that framing.



But no, but precisely that that's exactly what's happening, right? And, and, and that means that, that I personally, and I know many of my colleagues have seen more discussions with more people that we typically wouldn't see too much that than ever before. And even to the level that you would say, maybe, maybe the expectations are a little bit exaggerated over here, but having said that it's so good to see it at the boardroom [00:08:00] agenda.

Yeah. Right. And, and yeah, I've been discussing it as a strategic topic. And having said that, that puts a heavy burden obviously on everybody in the industry, because I do consider 24 a year in which we have to put the rubber on the road and actually, create a certain amount of scale and impact.

And again, not only on generative AI, because I think that's a. That's very almost naive to assume that generative AI will solve world hunger and everything else with it. But still, the fact that we are in a dialogue, the fact that everybody sees the potential, is the great thing, I believe, that happens in 23.

So you think that we are going from a POC to full industrialization? Well, obviously, we'll make moves in 24. Full industrialization, that's That's, that's quite a call, I believe, for, for one year, but we're definitely going to scale. So, so massive scale, you could call probably industrialization. [00:09:00] , we have some time to go over there, but, but obviously we cannot.

Stay stuck in this , this POC world. Right. , I think we've seen a lot of proof of concepts by now and, and it's definitely time to , to scale up these things. And, and if we do it at a massive scale, you could call it industrialized at a certain point in time. Whatever's happened, and whatever it comes out of that, and I agree that mastery has to occur, um, huge anticipation is now in the system.

So everybody is sat expecting these great things to happen, and these IT engines that have been built now have to work out what they're going to do with it. And I'm sure there's a few people sat every morning going, scratch their head going, I've got to do something with this, and it's got to be profound.

But what is it? Well, that notion of expectation, Rob, actually is a great bridge into the question I was going to ask Ron, which is going into TechnoVision 2024. Did you feel that actually we might get a different readership for this? I know that, [00:10:00] historically, like board level and sea level of people we target for TechnoVision as a readership.

But actually, what's going on at the moment? is opening up the conversation, right? So was that in your mind when you thought about TechnoVision 24 that that was absolutely on our minds. And as a matter of fact, we have two key documents. Now we have what we call an executive companion, which we released very early already in January.

And that executive companion is more targeting our executive audience. So it's restricts itself in terms of well, we're covering a few of the most important key trends that we see in the full techno vision documents. And also we dive a little bit deeper in some of the, what you could call deep technologies.

So, so some of the, let's say deep technological advancements, for example, in terms of chips, in terms even of batteries, in terms of space technology, a few of these deeper trends that we see as well. And we pack that together into [00:11:00] what we call an executive companion. Right. Because we, we do think we have that audience.

And then of course, there's the audience of the, what you could say, practitioners could be, could be top architects, could be strategists, could be innovators, could be IT experts, CIOs,



CTOs. And, and that's a different, I would say, um, target audience that's, that originally was our main audience. And we still have that document obviously as well.

So it contains the full Monty, 37 different trends. It's, it's all very elaborate. It's, it's all also very executable. You have a toolkit that comes with it. It's a playful thing. We'll probably be back on that, on that dimension. So, so we do have two different guides and we do realize we, we have actually a brand new audience as well because more people want to know about , about these, these breakthrough technologies.

Then we've seen before, let's get into some of the content then. So I think the way that you have got the main body of it structured, I believe you've got a theme for the year and then you've got the, the trends of which there are 37, but [00:12:00] we're going to look, I think, at the sort of the macro trends that go across the top of that.

But before we get to trends, let's start with theme. So given what's going on at the moment, walk us into the theme. So what were you starting to think about and then, and then why have you ended up where you've ended up? you, you should realize that obviously given the whole , supply chain that we have to go through, you, you have to start around summer already.

Of 23 in order to get a proper release at the beginning of 24. So this is exactly what we did. So we had a brainstorm already during the summer of 23. And we started to think at that moment in time, we were in the middle, of course, of the generative AI revolution that was going on, which we, I think.

Pretty well flagged, by the way, in previous editions of TechnoVision and, and particularly the 23 edition, of course, that was also in terms of its visuals completely generated by AI, which at that time was, was relatively unheard of. So, so we were sort of, we had the feeling, okay, we're in the middle of this type of, of, um, revolution.[00:13:00]

So what will next year look like in, in a time, in an era in which every week we seem to see new breakthroughs. In technology. And then we realized, well, first of all, this will be a year in which we can do things that we deemed impossible before. So the notion of augmentation is an important one, and I'm pretty sure we'll be back on the topic a few times during our little conversation, but the fact that we augment ourselves with technology in order to do things that we deemed impossible before, um, and that's not only generative AI, but much more than that, I think that's, we felt that will be a key.

A key concept in 24, but then we also realize that, that , in the end, although this is very much technology enabled and technology driven, we should not forget that it resolves around us as human beings and, and that we augment ourselves with it and, and , not replaced by technology in any specific way.

So that's why we call the report to augment me. So, [00:14:00] so augmented lowercase and me in the uppercase , exclamation mark behind it, um, to, to make the point of me. , I think Taylor Swift has a song called me with it in capital letters with an exclamation mark. I'm not a Swiftie at all. so I wouldn't, I wouldn't know.

, I'll send you a link afterwards. Ron. , no, don't do that. So that's, that's Taylor Swift. Dave, your music tastes lands well yet again. Yeah. You're more a Britney fan, right? Ron. Yeah, Britney Spears. Or maybe, I was thinking Miley Cyrus and flowers and such, but yeah, yeah, I was thinking Miley Cyrus. Miley Cyrus with Metallica, that's, that's, that would be where my mind takes me.

She did it, yeah. I know she's done it. Fusion, yeah. No, of course she's done it. And , no, I'm



more of a metalhead, unfortunately. So, so the potato swiss of this world are not entirely, um, useful for me. Maybe she can grant you, you never know. Yeah, I, I doubt that, that's her target audience would prefer that anyway.

So getting back to it, get back, get back to augment [00:15:00] me where I was going to go with it. Was do you see augment me in the point you make around human at the center? Human capability being augmented to, to push things forward. Do you see that as a step in a, in a direction that says that actually the human might be.

Augmented out of the situation ultimately either for certain roles or, in a more in a more macro sense, which is obviously the paranoia that's surrounding things like AI at the moment. Yeah, but hasn't that always been like that? I think with every major breakthrough in technology that we've seen in the past, which not only include the computer, but so many other things before that, like, like, The locomotive, or anything like that, we've seen similar type of, let's say fear or uncertainty in terms of where does that leave us?

Right. And, and I think if you, if you take the proper augmentation perspective, you start to [00:16:00] realize that, that it actually frees you, liberates you and makes you. Achieve things that you deemed impossible before, but, but there is an important payoff in the title of the, of the report. So it's not only augments me, but, but the, the, the, the subtitle actually says, elevate your possible rediscover ourselves because what we're saying with it is while we embrace technology more and more, and we surround ourselves more of it with.

Enabling augmenting technology as a result, we actually found out more about what we really are as humans. So the more virtual you get, the more augmented you get, um, the more, the more digital you get, you actually. Understand better what, what still makes a real human or a real organization for that matter, because this is not only about the personal, your personal purpose in life.

And anyway, you see yourself as a human, but it's also about the purpose of the entire company. If you can automate more, if you can generate more, [00:17:00] if you can make things more seamless, even unattended and autonomous, then, then that makes you rethink not only what you are. As, as an individual, but also what the purpose of the organization is.

And we love that it's, um, we have an editorial in, in TechnoVision and we started, this might be unexpected with Apollo eight mission, which is now 55 years ago, first time that we actually humans circled the moon in a, in a spacecraft and, and, the lunar, um, module pilots, it was called Bill Anders.

And, and he actually made the first photographs, of, of earth. While circling the moon. And there's this famous picture in which you see earth rise in its full glory. And it's called earth rise. And, and, nowadays, by the way, one of the most iconic also environmental pictures ever taken. But the thing is what he said later on was, well, we went out to, to explore the moon, but actually we found out about earth because we look back at the earth.

So, so this, [00:18:00] this dark rock over there, the moon, it's actually. Not so interesting, but while exploring it, we rediscovered earth and we actually saw what it really is. Right. And I don't think it's the same now, but with technology such as generative AI, we actually explore it and we go in areas where, where we thought we couldn't never come.

And now we can actually achieve this, but while doing so we find out what is real. And, and where we actually come from and what should be the center of what we do.

Ron, so you set the scene very well there. Um, augmented humans, human at the center, rediscovery of Of what it means to be human. Let's though now walk through the themes.



So before we go into each one Just give us a quick summary of all of them and how you see it framing up And then we'll do a quick walk through each one So like like every [00:19:00] year we have a series of new trends and we have a series of trends that that are still Extremely relevant to new ones , are interesting to mention , the first one is all about the breakthroughs in, in computing technologies like quantum computing, but also neuromorphic computing, even synthetic biology, we call this trend.

Okay. Compute. , we see some trends in applications, particularly, of course. Um, low code and no code going into, um, AI driven code, which we call when code goes no, which is with a K. , but also we see a new generation of applications emerge , that are driven by chat and dialogue rather than , through, um, the , user interfaces that we know from applications.

And we call that trend chat as a new. Super app in, in the realm of data, we obviously see the breakthrough of , of AI and we, we call this trend, my AI generation, and there's more to it than generative AI, although the trend name suggests that it's mainly about generative AI. But we also see a lot of things happening around the [00:20:00] edge around the data , in edge computing in devices and the internet of things, we call that the thing with data.

, we see a lot happening in process automation, and I will love to discuss that. , we have a new trend like microprocess magic, which, which dives into the notion of, , splitting up processes and very small. Easy to combine and, and to, to exchange components, but there's also the quest for the autonomous enterprise, which, which I think might be one of these very interesting end games that we're moving towards in terms of more technology.

And then finally, in, in, in the realm of a user experience, we think user experiences become so fluent. So seamless, so intuitive that you actually could talk about a no experience because it doesn't feel truly like an experience anymore. You're simply part of it. And, and then in the area of collaboration , we, we first of all realized that people need to be better able to identify themselves as, as individuals in a very complex network [00:21:00] of interactions.

So to have a distributed own identity. We call this trans, my identity, my business is, is a very important, I would say, um, requirements for thriving in a complex ecosystem, which is networked. And then on top of that, bringing also the devices, the smart devices, and you get a new economy of things as we like to call it.

So, so these are some of the key trends that we see. And all of them, really, if you think about it , have both signs of augmentation. So they help us to do things. That were, seemed impossible before, but on the other hand, many of them also helped to read, find out again about ourselves and what we are and what still is very human in, in all of these different , technology developments.

Let's start with infrared and hardware and things like chipsets and quantum. So there has obviously been Moore's law over the course of the last number of what is it? The last 30, 40 years at this point, [00:22:00] um, still broadly holds true, I think. But actually there's a new generation of computers come in with, with quantum.

We've, we've covered quantum on the show. What do you guys think is gonna happen over the course of 2024 that might be sort of a material step forward in this space? Well, I think there are two things here to consider. First of all, yes, there's quantum technology and , I, I think many people will agree that that 24 would not necessarily be the year of breakthroughs in terms of applications of quantum technology.

But what will be very important to 24 is, is the, is the fact that we realize. That's that in a few



years with the sheer power of quantum technology, our encryption standards will be useless and could be very easily broken. And that means that, for example, in the, in the United States, you already see a, um, um, you see already an act coming up, which is called the quantum computing cybersecurity preparedness act.

And that is fascinating. If you want to do business in a digital way. With the [00:23:00] US, um, , you'll have to comply to these standards. And that means for a lot of companies, although I don't think in 24, they will already. Be, be applying quantum computing at any significant scale to solve problems that they couldn't solve before.

But that is by the way, the augmentation promise, of course, of, of quantum computing. But on the other hand, we, we need to , already be prepared, almost like a year 2000 or if you like Euro type of, of, of thresholds that, that we are approaching in, in which we need to ensure that a few years from now , we actually will be safe.

Um, based on encryption standards that are not vulnerable to, to the, the, the, the, the sheer power of, of quantum computing. So we need quantum safe algorithms and, and, and, and we do think in 24, there will be, that we're approaching that, that threshold, that inflection point in which you have to do it.

And at the hardware layer also, not only is that sort of profound step coming, which we need to [00:24:00] start preparing for in numerous different ways, but, but I think at the hardware level also and at the, at the, at the physical infrastructure level is where we see a lot of sustainability work that needs to be done as well, right?

Sustainability definitely, um, but, but you also see, you mentioned Moore's law, right? And we don't think it's obsolete at all, but it is undergoing a metamorphosis, right? Um, so, so you'll see, you'll see technologies like, and we don't need to dive too much into it, but there's adoption of vertical stacking in multi layer structures.

There's exploration of non silicon materials, for example, non silicon. There are also new lithography techniques and, and all with all that combined. And, and you also apply it in new type of factories, big , very effective giga factories, and you'll see , some, some profound changes at the chip level as well.

And, and that means sooner, sooner or later, of course , that we'll be able to do so many more things on top of it and a more sustainable way. [00:25:00] Because we cannot, continue to grow, look at all of the, the impacts on, on , on computing as a result of, of generative AI. And we now suddenly, of course, we clearly start to realize that it takes a toll, right, on , on , resources and, and also it's not necessarily sustainable at all.

So we need that new generation of chips as well. They need to be lightweight. We need to be able to embed them in even more things than we currently do. And, and they need to come with a lighter footprint and, and also given the scarcity of resources that we're currently seeing , we also need to find a new ways of building these chips.

And, and for example, not even base ourselves only on silicon. One of the nice things is necessity is the mother of invention and the gen AI revolution and the compute demands have created the necessity. And now the challenge has become. been laid down to the compute providers that you've got to do this more efficiently and more cost effectively.

Otherwise we can't afford the to deliver on the anticipation that that hype cycle has [00:26:00] created. Absolutely. And 24 will of course be a wake up call for that. , because with all the enthusiasm, we realized, okay, but, but a lot of this, depends on very powerful computing. Capabilities and can we actually justify if, if only from a cost perspective, by the



way, because that could be a very interesting discussion as well.

We're getting very, very excited about what we can do with certain technologies. And then it comes first of all, with a certain price, because, there are compute cycles and they could be expensive compute cycles because it's on dedicated hardware. And then secondly, you realize, but okay, there's also a lot of power consumption, involved here, and there's a lot of potential CO2 emission over here.

And we were after all on that net zero journey, how we're going to explain that and justify that towards our own people and the outside world. Let's move on to the app content. Yes, applications. What I'm hoping you're going to say in this is that we are beginning to get to the [00:27:00] end of the traditional.

Client server application masquerading as a sort of a cloud native application on and really truly get into things like loose coupling and things like that. Architectural concepts, Rob architectural concepts. I love it. Dave, you're going straight into the what is very important to me is loosely coupled, highly cohesive, small components, easy to manage.

That's what we all want. But we've got to deal with this massive Heap of legacy that has served us well, but I think you've done a good job time to take it out to pasture though and get the new, the new gang in. So Ron, what do you think? Are we going to get those? Yeah, well, you did make a good, remark by the way about the legacy applications.

I will soon visit the seminar next week. Which is actually about the urgency that we see, for example, in the Dutch government about COBOL, which you may remember as a programming language. A lot of key applications are written in this language, which I am very old. So, so I [00:28:00] still remember. Having written things in that language storage area.

Yeah, no, absolutely section. Yeah, no, I, I, data division. I, I've worked with all of it I've done my fair share of global programming, but, but nowadays a lot of these systems that were built at the time, um, still, still are a given, but, but okay, so, so. You are right. On one hand, we can talk about, surface mesh and, and this whole idea of, of little microservices running on a platform and, and working together as a mesh and, and, and they are strunken.

And, and by the way, we already had for two years now in TechnoVision this trend, which we call honey, I shrunk the applications. And that is, that is very much this idea of, of, um, getting to this level of very loosely couples. Um, semi autonomous type of microservices that can work in a opportunistic mesh rather than in a predefined, pre structured thing.

So, so I think that's still going on, frankly, I don't think 24 is a year of the breakthrough there because I think [00:29:00] in a way from, from an applications architecture perspective, we've already seen that. Going on. Yeah, it's not new, is it? I think it's things like investment cycles and, kind of transformation, heavy lifting is the reality of that for most organizations and it's still going on.

And we know it's an ongoing battle between we need to sort of maintain our legacy and sort of rationalize it step by step. But it's difficult. And at the same time, we realize that the next generation of application services is It doesn't look like, like these legacy applications at all. One of the things I've spotted though is clients are coming to the realization that it's better just to rewrite from scratch.

That is to try and transform in situ and there's much more like getting picked up where they can do the business processing over here the pattern was will try and transform what we've got and it actually said it's just easier because we can reinvent at the same time we're rewriting and that that lift [00:30:00] is changing and there's this ethos now that says that Of



the famous s the pirate schemes , that rewrite is, is becoming much more invoked and being much more successful and better.

I'm sure can. Coming outta it, I'm not sure I can let the pirate thing go. . I was gonna let it go, but I've You can't let it go, David. We in trouble is gone. We're in trouble, right? Yeah. In reality, it turned out that some applications are not capable of being ported. Or something it's just not possible to do it absolutely you look at the effort and the toil associated with in situ transformation you just go i'll just rewrite it because we didn't like those business processes anyway now there's some criticality in there that it is the core operations a lot of people impact on that but.

I've seen in in very large legacy organizations. They've just got that doesn't it hard. Interesting words. You used in the middle of that Rob that I thought I might thread a few things together here on and just and just see what how you guys are thinking about [00:31:00] this. So a lot of the legacy that we're dealing with today from from a tech point of view actually comes from organizations that are effectively trying to take processes and embed those processes into Yeah, kind of relatively rudimentary. Let's face it applications. Those applications have been good. They've been helpful of allowed things like globalization, whether you think that's good or bad, but that's that's come from a world of that kind of digitization. It seems to me, and I wonder if you thought about this in process on the fly and in terms of Also, how you leverage data.

It seems to me that within an organization process is important, but it's perhaps less important than humans being able to leverage the right data at the right time to make the right decisions. And I wonder if there's like more we could think about applications a little bit more profoundly than simply encoding processes into something with with a data set.

It feels like that's [00:32:00] being blown up a little bit at the moment. And actually, when you specifically think about The nature of experience you were talking about, how you interact with your data and how you interact with your organization can be less process based and much more intuitive, perhaps I'm, I'm pretty sure of that.

Um, actually, if you talk about augmentation and applications , in the applications area and the applications trend, I already mentioned this, this new trends that, that I like, which is called chat is the new super app. And that actually says, well, nowadays. , maybe we don't need an applications interface anymore.

And certainly not as part of a process. We are in a natural dialogue with the system and we use natural language for it. Some people prefer typing it, by the way, others prefer using their voice. It's a little bit generational. I sometimes have the feeling, but in any case, you're not. aware of an applications interface, you're not aware of a menu structure.

You're not necessarily aware of a step in a process in which that application services has [00:33:00] a place. No, you're actually in a dialogue with, with your super app agent, which is voice and, and through a dialogue, through a chat , in which you, by the way, teach the system a little bit what you're looking for in, in order to express your right intention.

And, and, and then somewhere, Under the hood , microservices or even legacy applications will be, will be triggered and enabled. And there might even be some sort of a illusion of process flow going on underneath there as well. But, but I love that idea. And, and the fascinating thing is. , if, if we look at Elon Musk , of course , who bought , Twitter.

I always use the name Twitter, by the way, just to annoy him. Not that he wouldn't be aware of it, but I love to talk Twitter rather than a subscriber and listener. I'm very sure. I'm very



sure once he's heard this run, you're going to be in trouble. Yeah. Yeah. Well, I wouldn't be the only one and, and I'm looking forward to be suspended because that would be [00:34:00] the right moment in time to simply leave it all behind, but, but he false X would be the new super app, right?

So the idea is you're, you're in Twitter and, and you , you could find all of the application services in that same user interface, where I believe he already had it in his hands. And it might've been the Tesla because this has a very good voice assistant on boards, which you can already use for many different purposes.

So maybe that is actually the super app that he was looking for. I believe anything around dialogue and maybe also around voice assistance will actually turn out to be that new super app. And then there will have a whole series of little plugins, like in the open AI components , interface architecture in which you simply plug in dedicated, isn't it Components XX Grock.

Yeah. Yeah. That's, that's which the, the vision there. That's the chat front terms. Yeah. Yeah. The, the, the Gen AI implementation, which indeed, I think, I thing I thought was fascinating with grok was. A little bit, I think what you're digging at Ron, which says actually maybe the [00:35:00] interest in Twitter was much less about the social media platform is much more about creating a data set that would power Grok.

Of course. And then Grok will be the thing that's ultimately valued at a point that made, that makes the Twitter acquisition make sense. The name of the thing, Grok, I mean, I don't know. Hitchhiker's thing, isn't it? A bit groggy. I think it's hitchhikers. I think. Yeah, yeah, yeah. I know it's obviously hitchhikers, but it's moody as well.

I think I heard it's got, it's, it's quite an opinionated. I was, which I, which I quite liked the idea of. It's a bit like when we're talking about the feeler and you can get the feeler car and it can, it can respond to you and be a bit grumpy one day or it can be, it can be happy. Artificially artificially grumpy.

That is always should realize by the way, I noticed you clinging onto that lifeboat run. No, but really , I do believe over here talking about augmentation, I think , a chat interface like that could indeed simulate or artificially be grumpy or joyful [00:36:00] or ironic or cynical or whatever. It's still definitely artificial, obviously.

I mean, there's a reason why there's the A in AI, right? It's definitely and decisively artificial. That will be until the AIs decide they're going to just call themselves AIs. Yeah. Yeah. That'll be the singularity. What's the singularity? The singularity. I'm, I'm not say we're all screwed. I'm not a Taylor Swift person, but I'm also not a , singularity person.

I'm, I'm not the record smile guy, frankly. That's probably a whole other podcast. Let's get back to second. There's another, the trend, there's another trend in, in, and the, and it's the mashup of those three things to me. Like apps data and process on the fly and how those things may fundamentally end up changing organizations in ways at the moment, it may be hard to envisage.

How do you see the macro effects of these things? Maybe not in 24, maybe stretching out. I don't know, five years. So at the moment we talk about [00:37:00] organizational transformation, it could be framed with the word digital or it could be framed with the words cloud native. And I'm quite a believer that digital organizations and cloud native organizations do look different.

They do work differently. They're philosophically different to traditional organizations. Do you see what's going on here is an extension of the digital organization or is it like a next



generation thing that we're That we're scratching on here. Well, frankly, I've never, I've never really liked the word digital, but that's maybe because I was already too conscious in the eighties and I do sort of associated with eight bit type of pong games or something digital, it's, it's, I just see a zero and a one interesting thing, by the way, is.

That, that with new forms of computing, um, like quantum computing, it moves away from the zero and one digital worlds. Can we still call this digital if we would be applying , quantum computing, for example? I don't think so because it's decisively not. What's the new word? Coin it, Ron. Come on, you must have a new word in your head.

This is what you do. You're a highly [00:38:00] creative person. What replaces digital? Well, I have, I have frankly, no idea, but , that's a nice, that's a nice challenge to find out. I think that's something that could be. TechnoVision 2025, Ron, we want that word trailing it for January 2025. Digital becomes, and then there's a , a big ta da moment.

I think that'd be, the next report. Yeah, but the next report could be, could be featuring that word. Of course, we already said in the past, digital transformation, that that's sort of like a pleonasm, right? It says the same thing, like a burning fire. Of course, it's a burning because it's a fire.

Right? And it's the same with digital transformation. Any transformation nowadays would be considered digital. Um, so, so that's, I mean, nowadays, every business is a technology business, right? Some are better than others, though. Yeah, well, some more than others. Yeah, I think you have to be courageous to take on the full potential of it, even, of the D word.

Yeah. No, but, but when you bring it all together, you're right. And it is not only , [00:39:00] the applications architecture, it's not only , infrastructure, cloud, cloud native. , it's not only data oriented. It's even not just process automation. Um, still need to touch a little bit on that. But, but if, but it's also, for example, what some people call the web free, right?

This, this notion of a very loosely coupled business mesh. If you like, in, in, in which we can actually combine business services, um, in the same, in the same way that, that application services would be combined based on a chat, on a dialogue. And it could be based on an intention, right? And, and we'll have these multi agent, multi modal type of systems, not only generative AI, but, but many more smart components.

That we work, would be working together seamlessly to, to achieve an objective. And that brings us back to, to the notion of the purpose of the company. What is actually the objective or the series of objectives that we're trying to achieve, and then when, when we weave that all back to almost a conversational dialogue in terms of what is our [00:40:00] intention, how can we express that purpose?

And then what is, what is the entire digital, if you like. Um, landscape underneath that we could activate and mobilize to achieve and optimize , that purpose and, and these objectives. And , I simply love this idea. A few years ago, I already coined this idea of , Alexa run my business and, you, you have a personal assistant and, and Alexa at the time was big, might come back by the way, voice assistants for the reasons we just discussed, I think it's inevitable.

Yeah, it's inevitable. And then you, and then what you need to do is, of course, be very clear and intentional about what you want to achieve as a company, as a purpose. So maybe we can draw a conversation to a bit of a close around that topic. So just as a reminder, we've gone through sort of infrastructural components, future of applications, we've touched on



data, decomposing processes, and then new ways of collaborating and user experience.

There's a lot in all of [00:41:00] that. So, yeah. applying it to real life then and how you might actually get your head around this in the way that you've just described. How do you mobilize all of this stuff, all of this noise in support of the purpose of my organization? Exactly. Well, well, first of all, I think TechnoVision is designed to cut through the noise, um, in order to successfully prompt whatever future you see for you and then use TechnoVision as a, as a resource, as a framework.

To, to actually find your way, um, in the middle of all the, if you like, mess or noise or whatever it is. So so first of all, TechnoVision is a very , playful framework to do it. , by the way, what we haven't discussed so far is what we call the design principles. We have seven principles that are not about the what, what are the actual technology trends, but it's more about the how and, and one meal in it is, is very much, I think.

Leading the way in terms of how, how to deal with this as humans. And we call that AI will be the judge of that. And what we're saying there is , well, [00:42:00] there's a new level of judgment here between man and machine, right? Um, we, we obviously see that more things can be done automatically and autonomously by, by very smart AI agents that do it on behalf of us.

But where's the judgment there in terms of what you want to leave to. A system, a augmenting system of services that that sort of answers to us and understands our purpose and tries to work towards it versus what's the role of us as humans in judging what we leave up to a system and what we leave up to us, because we fundamentally consider it our realm.

Um, so, so first of all, that that's a very new balance act. I believe there's a new symbiosis, if you like, between man and machine that we need to achieve in the forthcoming years. And it's definitely a shift because I do think we can leave things up to , the systems around us, the technology around us.

But having said that we, we should not lose ourselves and find our place. And, and our unique place also in applying that [00:43:00] judgment , to situations. So, so first of all, that that's, that's the design principles and there are more, and, and , mindset is often a culture, um, and, and, and, perspectives on change are usually more important than the actual technology.

So that's first, well, secondly, techno vision is as many people know, is, is a very playful framework. So, so we like to engage both people at the business side and the technology side, as far as you can still distinguish that. , we like to bring them together, use the 37 trends and all sorts of creative ways.

It's not only a PowerPoint deck or a PDF that you have to battle your way through, but we actually also apply card decks and a cardboard boxes in, in all sorts of very, I think, mobilizing interactive workshops in, in which we, in which we simply create joint. technology driven stories that we can share, that we can live and breathe, that we can actually appreciate, because we build it ourselves in a series of concepts that everybody can [00:44:00] embrace, not only technology people, but also, um, let's say business people, again, if you can still really separate the two.

So this is really a matter of realizing that it's not only part of the IT,, department or the data department or even the digital transformation department, if you still want to call it like that, but it's actually a matter of, of getting this into the veins of the entire organization. And you have to do it in a playful way, in an actionable way, and that's why I always say techno vision is not the right words. , first of all, techno, it's much more than techno because we're



interested in business impact and business change through technology. And secondly, it's not a vision. Well, it's also a vision it's, it's a nice piece of thought leadership, but much more than that, it's an actionable framework and, and that framework, it's almost like a toolbox.

With a whole series, um, more than, than, um, two dozens of different ways of engaging with these 37 trends and use them in all sorts of very interactive ways to , [00:45:00] weave together these stories. And it's all about storytelling and sharing stories, I believe, in order to be successful.

Sjoukje, what have you been looking at this week? So each week I do some research on related ideas and transformation and tech. And this week I thought we should take a look at what various industry experts think will be the tech trends for 2024. So each year Forbes publishes the expected tech trends for the new year.

And this year there was a total of 20 trends published, mostly around AI, of course, but there are other emerging trends as well that will dominate the conversations and company initiatives in. this new year. And I see a lot of similarities with the trends that are in TechnoVision such as automation, [00:46:00] which will be extremely important as IT teams are expected to do more with less.

Digital twins. One expert says that this year will go on to be the year of the digital twin. Finally, there will be a single pane of glass. And of course there's brain computer interfaces, quantum computing, and much more. So a question, what do you think will be the biggest trend? For 2024, and what should organizations really focus on?

Well , as you said, and it's not a surprise that, that Forbes or, or for that matter, any other trend watcher or, or trend prediction would, would gear around AI, so, so that's obvious. And, and as I would, as I would elaborate on that , it will be the year of scaling up. , AI and realizing there are multiple flavors and not only generative AI.

So, so that's, that's a very important thing to realize. I love the point of automation as a matter of fact, um, after our discussion over here, I'm currently involved in multiple clients. One [00:47:00] very interesting client won't mention a name, but they are really, really. Um, interested in , in, in high levels , extended levels of automation all the way up towards autonomous enterprises that sort of run themselves.

So I, I like automation a lot. Um, I think we flagged the digital twins already a few years ago, even dedicated one techno vision report more or less to it. But, but nowadays, of course, if you combine digital twins with , with let's say augmented reality , then, then you start to realize , I could, I could actually visualize digital twins and make it much more alive.

And then what I would say, particularly , with a lot of , organizations that didn't see digital twins so far, like banks or insurance companies that don't have that many physical assets. And now they start to realize if you make a digital twin of a business process. Or an organizational entity, then, then you can do the same very juicy things that you can do with digital twins.

You can collect data, you can create time series, you can unleash all sorts [00:48:00] of analytical, um, analysis , on it, you can simulate, and in the end that would help you to, to make, to create more autonomous, more self optimizing. , more effective , processes as a result. One of the things that I think is interesting when you look at a number of trends that come out, this time of year, there is an optimism in them and some would say potentially an optimism bias.

And I want to go back to the point that Rob made earlier, which is connected to the



boardroom conversation and the level of expectation that has been set around some of this stuff. And. And the practical aspects of actually responding to it. So what are we thinking about that? Like, cause when, when I look at, a number of organizations that I'm working with at the moment, you look at, you look at their transformation, three year plans and they're almost, insanely mundane in a lot of ways, they're dealing with problems that.

like deep legacy or deep technical debt or [00:49:00] the deployment of another gigantic ERP system or, or whatever. And then they've got some of the concepts where we've been talking about. I'm not talking about everybody. There's a lot of digital twin, for example, already in, in production and things like that.

But a lot of the core concepts we've been talking about are almost skunk work to the side rather than mainstreamed in transformation. So I wonder, is there a leapfrog that organizations could potentially do here? To some of these newer technologies maybe you think they could and skipping a generation and avoiding mistakes the past is always very sensible and that's what the power of the startup is isn't it i don't have all this legacy and rubbish i need to be able to deal with.

And there are some significant basics that still need to be in that boardroom as well that we've discussed on previous episodes most notably. Security and cyber security continues to be a massive issue for many organizations and the ability to secure themselves. We've had we've seen nation state interference with these platforms rising as [00:50:00] well.

So you've got all this. I need to do this new to transform my business and get on with that. But I do think the conversation does still have to be rooted in. Sometimes the basics are still very important and What is interesting in the themes and the optimism points very good, Dave, is that sometimes the boring things that are still the essentials don't always play forward.

And we think that's just table stakes. But for many organizations, security posture needs to be a little bit more than table stakes to make sure that they're properly positioned to be able to defend themselves against the more nefarious people in the world who would want to nick their data as well. So there's that there's that thing that has to play along mhm.

All these optimistic ones. Yeah, I think that's a fair point. And let's actually end what's been a very far reaching conversation today on, on that note of practicality and, safety. Ron, it is always a pleasure talking to you. Likewise. Good to see you. TechnoVision 2024 is available online now, both the executive summary version and the full [00:51:00] version.

And we heartily recommend you go and take a look at that. There'll be links to it and such like in the in the show notes. But Ron, we end every episode of our podcast by asking our guests what they're excited about doing next. And that could be something in your personal life, booked at the weekend, or it could be something in your professional life.

So Ron, what are you excited about doing next? Hey, I always have excellent restaurants appointments coming up, because it's my main hobby. So, so that's, that's, you would almost say business as usual. If it wasn't so much fun every time again, um, in, in terms of , my professional life, I still look at, are looking to reinvigorate that idea of that book. Alexa run my business , as we discussed , already coined that a few years ago. And nowadays I feel where we have many more technologies and cases that actually stipulate actually underpin , that claim. So, so I hope I'll be able to find, um, Um, sometime to , to work on it [00:52:00] and for the rest, I'm, I'm still working if we're talking about music, yes, I'm not a Taylor Swift fan , at all. I do like to work a little bit on surf rock myself as well. So give a bit of a chance. I'm a bit of an undercover recording artist as well. So I'll be working on a few pieces of , of, of



very dysfunctional surf rock. Music as well.

And I definitely, definitely looking forward to that. Send us some links. I will. I will. I would love to. I would love to hear that. So a huge thanks to our guests this week. Ron, thank you so much for being on the show.

Thanks to our trendy producer Marcel, our sound and editing wizards, Ben and Louis, and of course, to all of our listeners.

We're on LinkedIn and X, Dave Chapman, Rob Kernahan, and Sjoukje Zaal. Feel free to follow or connect with us and please get in touch if you have any comments or ideas for the show. And of course, if you haven't already done that, rate and subscribe to our podcast.

See you in another reality next week.[00:53:00]

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