



CLOUD REALITIES

CR065

GenAI in practice with Bernard
Marr, Author & Futurist

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[00:00:00] We've never allowed Marcel to push the red buttons at the live shows or upload any media. So, this is a big, this is a big thing for you, Marcel. We've actually given you responsibility. How do you feel about this? I mean, yeah. I'm wearing a diaper. I'm wearing a diaper.

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 and I'm Rob Kernahan and you'll notice that sadly that we haven't got Sjoukje with us here again today. We're missing you, Sjoukje.

She's taking a little bit of time away from the show. We'll see her again a couple of times between now and the end of the season, but she's taking some time away to work on some other opportunities. So we wish you huge luck with that. In today's show, [00:01:00] though, we are going to dig into AI. So it continues to impact on organizations.

It continues to impact on society. And we're going to take a check in on that today with a very interesting and wide ranging exploration of the subject. But before we get to that, Rob is stepping into the world of podcast production. At the moment and has been handling a number of the pre meets so without drawing the curtain back too much, the way we run the shows, we like to meet the guest in advance and we have a chat with them and, and we work out broadly how, what we want to cover on the show and things like that.

And then we, it gives us a bit of a structure to work from now. Robert and I share some of the pre meets and what we normally get to is we get the production sheet out before each episode and we have a look at, you know, what we've set out for that thing. And sometimes there can be a fairly big gap in between them, but we, we're simply slipping into a pattern Robert of who did this pre meet?

Did you do this pre meet? [00:02:00] And it is a level, it is a new level of confusion that, that we're introducing into the production process. It is rampant within my life, David, confusion. So what else have you been confused about this week? Dave, it's optimistic spam, right? Optimistic spam. Optimistic spam, right?

I'm still confused, right? And I explain why. So we get the phishing stuff. We know why that's going on. We get the agency from the emails that is, you did something with an organization and they want to send you emails and offers and things. I get that spam, right? We all remember to hit the unsubscribe button or not tick the box in the first place.

The one that still confuses me, that's a thing, is what I call optimistic spam, whereas you get the totally unsolicited offer of services randomly. And I'll characterize this. It happened to us last week. So we put the post out on the socials and everything else. And there's a conversation going on about the topic.

And then just someone randomly says for all your flag needs, please contact. Right. And that's what I classify as [00:03:00] optimistic. Who goes through that thread of conversation about technology and then goes, Oh, you know what? I did need to buy some flags. I'll just contact them. What this conversation about technology needs is a flag.

It's a flag. And then in your email, when you go into your emails, it's like the, you know, you get the all sorts of unsolicited buy this now from this random place somewhere. And it's, I don't who clicks the button. Cause The only reason it survived and this spam is being on for a while is because it must work.

And I don't know how it works. Did somebody actually ring that number and order flags from somebody? I don't know. And I'm confused. How actually is mobile phone number as



well. They put a real number on and I'm like, I'm still who, who is clicking the link and buying from unsolicited optimistic spam because it should have died out years ago, but it's still The phishing risk.

You know, it's amazing. The thing that would have killed this. It's not like trying to say reset. I got [00:04:00] the get all the time. Your Netflix accounts being suspended, reset your password, all that sort of stuff, right? I get those because they're trying to nick your details, but this is, do you want to legitimately buy a flag?

I guess the big question is, did you buy one? You know what? Slightly tempted to ring the number and find out what was at the other end of it. We should get a cloud realities flag is what it feels like to me. Somebody's clicking that link. It is amazing. I'd like, I'd like to know from that guy, one, how many people ordered a flag after you put that under our LinkedIn post, but two, and what should it be for a cloud realities flag?

Marcel, can you get on that straight away, please? Yeah, that's a, that's a level, a new level of merge that I hadn't thought about, but, but I do agree. It baffles me that this happens. I must get, like everybody, the amount of email that I get. That has got that is because I'm on a list somewhere. I mean, I do respond to it.

Most of the lists that I'm on that spam up my inbox. [00:05:00] I generally things that over the years that I've kind of used the service from them. Yeah. You know, legitimately click the, yeah, actually, I wouldn't mind knowing about tickets in London tickets, or, you know, special offer on at whatever shop that you use.

Right. I get that. I understand why that works, but it's the just, What annoys me is when you've. And maybe this is some of the root cause of optimistic spam, is when you've ended up on lists that, because obviously your details have been sold or something, that you had nothing to do with, like, do you want to buy greenhouses or whatever it might be.

Yeah, well, exactly, the other day I got a spam. From a chainsaw company in Massachusetts, America offering me to go into their store and test drive their new model of chainsaw. I couldn't do it. Well, it might be a slightly expensive trip to go by a chainsaw, but it's like, it was just the total randomness of it.

I'm like, who thought that that was going to resonate? But I suppose it's so easy to send out like a million emails, [00:06:00] but at what cost what's, you know, that takes energy storage, compute power, you know, this is all an impact. Digital litter. It's creating huge amounts of digital litter, but it must work because they keep doing it.

Well, I think we'll leave it there because I think you've got to the answer. I mean it must work and um, well, maybe Maybe the world of AI can help us out with this somehow. So I don't know whether we'll get to that in today's conversation, but maybe we will at some point. And I am delighted to say that we have Bernard Marr joining us.

Bernard is an internationally bestselling author, keynote speaker, futurist, advisor, and influencer, and we are delighted to have you join us today. Bernard, do you just want to say hello and introduce yourself a little bit? Yeah, I'm super excited to be on the show. Thank you for having me. Yeah. So I, I do a number of things.

I help companies understand future trends and I work with boards of organizations, helping them to cut through the hype. And, and really get ready for future trends. [00:07:00] I write books, I've written over 20 bestselling books on, on future trends. And I do a lot of speaking engagements and keynotes. So Bernard, maybe let's just kick off with a sense of what's been occupying your mind, like for the last 10 years of publication that you've been doing.



So just maybe walk us through a little bit of history for those who aren't familiar with what you've been exploring and then bring us up to date with the new work. Sounds good. Yeah, no, I, I've been writing about future trends. So I started off looking at how companies use data specifically, then this widened into analytics, AI, then AI has an impact on so many other technologies.

And now I write about, The future of business and technology and my audience is senior executives in companies. And my job is to really cut through some of the hype that we are seeing around all of these technologies and to set to [00:08:00] explore what. What is the metaverse? What is blockchain? What is AI? How is it really transforming businesses?

And I write about it. I help organizations understand this in practice through my advisory work and I advise boards and help them understand how their industry is going to be impacted by technology and future trends and how they get ready for it. And I do a lot of keynote speaking. Thank you for that.

And before we come up to talk about the new work, which is generative AI centric, let's just explore a couple of the. Significant trends that you've looked at over the course of the last, let's say 10 years or so, what are the ones that immediately come to mind for you? You mentioned things like Metaverse and a couple of other things there in your theory, is there a couple that really jump into your mind?

And what I'm interested in is. Did they fulfill their potential or do you see them as still like an ongoing thread. Yeah, but [00:09:00] with all of these trends, they always go through these hype cycles. They get hyped up immensely. People then get disillusioned a little bit and then they take off. And for me, the first one that definitely fulfilled its potential is around data and data becoming a true business asset, especially the use of big data.

That was a. Big topic. And I've written a few books on this, on data strategy and what big data means in organizations. And for me, data now is the foundation of so many other trends we're talking about today. Um, the next trend then, it was the, the, the big one was the metaverse or the, the more immersive world.

And again, that was then crowded out by the explosion of generative artificial intelligence. Right, right. It's been pushed off the pitch exactly, but, but this is still going on in the background and for me. Generative AI actually has a huge [00:10:00] influence potentially on things like the metaverse, because when I don't particularly like the word metaverse, I like the, the word extended reality or really making our, our digital world more immersive and more real and 3d.

And this has huge implications and so many different aspects and what generative AI can actually do is can help us create those models. So if a company wanted a. Digital destination in the past, they needed to have video game designers to design their shop front in the metaverse for them. Now we can just write a text prompt or talk to, to a generative AI tool and hey, to say, Hey, build me something cool in the metaverse and we'll do this for you.

So. Those are probably some of the key trends. Then underlying we have, um, another trend which is a more decentralized world. This is for me interesting where we, with blockchain technology that is also bubbling under the surface at the moment, has [00:11:00] huge potential, but will be very interesting to see where this is all going.

But for me, the explosion of data, the more immersive digital world, More decentralized technology and then artificial intelligence right in the center of all of this and there's an interesting variation in those as well so like data you know there's a particular way to



approach that there's a little bit the same with the metaverse it requires the human to engage.

I mean, we've all seen the, you know, the headsets and things and how you come together. I always find that an interesting one because the barrier to get that to work for me is everybody has to be willing to engage in a particular way that is traditionally different to what we're used to in the types of human interactions that we've come from.

And we can see ourselves teasing our way into it particularly. And you can see that the Apple have again tried with the vision pro and we've seen the meta question thing. So there is this. ever increasing maturity, but I think there's that extra barrier with the [00:12:00] metaverse, which is the human has to change their ways, which is always a very complicated thing to get anyone to do, whereas the others can be engineered to help the human and it provides and a result.

I'd be interested in your view on what you think that cycle is for people to get more comfortable with that new style of interaction from a societal perspective. Yeah, really good, good point. And I think the challenge is that it, for to really take off, it requires new hardware. Like we need to buy headsets.

And at the moment, the really good headsets are very expensive, which is a massive barrier. With the phones, it was a lot easier because we had, we all already used mobile phones, they became better, we had of this replacement cycle. Um, anyway, getting new phones every year or so. And, and it just carried on with smartphones and, and enabled us to use AI and data on, on that.

I still think that in the medium-term phones will be the access point for the metaverse. [00:13:00] So for what I'm seeing is a push. Towards more augmented reality and and I see this in lots of cool applications where you can now try on makeup for example before you buy it using filters on your phone and apps where you can try.

Furniture in your room, using augmented reality to see whether she, will it, will it look good? I've done those things where you can try on sunglasses. They're always disappointed though. I'm like, are they going to be that small in real life is generally why. Are you sure it's just not your big head? Oh, the system can't cope with it.

Unfortunately, I think that is the common factor, Robert, but thanks for pointing that out. The, uh, I do, yeah, but I do think there is potential with it, right? There's potential with that. Say if you go into a shop. What is that thing i was um comes back to the google glasses thing was long ago the concept of being able to augment your vision as you walk around the city with maps and things like that i always thought that was an ace use case [00:14:00] but then you got all the backlash from it where people thought you're recording them and what you actually doing with this and you know we've seen multiple instantiations of the glasses that record things and whatnot else but you still have this part of society that is nervous as soon as they think you're recording or they might be being you Tracked in any way that they, they freeze and it all comes up.

So it's almost like you've got this long curve with the, with everyone else to also accept it. And I think you're right with the phone. We're far more accepting of watching people walk around with phones now. So it's almost like that's the bit that I think will be, uh, something will happen through that.

Although I don't always like the augmented reality experience through the phone. Cause it can be a bit clunky. Some augmented reality just happened as you were speaking, so. The



thumbs up, yeah. Oh look, there's the fireworks going off. So like, on the, you know, the new iteration of the OSX desktop, it responds to thumbs ups and things like that and gives you like little bubbles and there are a lot of fun things.

on that. I do find myself doing thumbs up much more often than I thought I [00:15:00] was talking about something serious. And it's not a good result when the thumbs up appears. Yeah. It's like, it's almost like you've unintentionally judged the conversation. And I'm like, I didn't, I didn't, I didn't mean to do a thumbs down when you said that I can only apologize.

So you think then Bernard, the, the, the sort of future that's emergent beyond some of the Original views of what metaverse might look like, which is kind of awkward looking avatars standing around in a virtual room, pointing at whiteboards, trying to mock up a real world experience in a way that is never really going to feel like a real world experience is actually going to look much more like an augmented world.

Absolutely. And, and there's so many examples. I mean, if, if, if we now all had meta quest headsets on or, or, or, or apple pro vision, vision pro headsets, that would make our conversations much more 3d and real, which [00:16:00] is pretty cool. And, but we talked about the, the retail example. I think one of the. The, the reasons why we go into shops to try on clothes, for example, is because we want to see ourselves in them and see do they fit well.

So in the future we can combine things like the generative AI capabilities and the augmented reality capabilities of our phones to scan your body. And then we can use AI to try on different variations of clothes. So you can combine a dress with shoes, a t shirt with jeans, with shoes, and. And then you can actually go beyond what is possible in a dressing room because you can go into a shop, try on different combinations, but then you might want to wear this, um, outfit for a cocktail party and you want to see what does it actually look like.

So you can not only try yourself, try clothes on, see will they fit on me, but you can then transport yourself into a cocktail party and fly around yourself and [00:17:00] say, will I look good? cool in, in this outfit. And this is the kind of future I get excited about that this technology is starting to have these kinds of capabilities.

Well, the thing that is amazing me at the moment, and it almost does every week is how sci fi what you have just said. And how sci fi a lot of what you see, particularly in the development of AI, which we'll come on to in a second sounds, but I keep having to remind myself that this isn't sci fi like some, both some of the innovations that are coming to market are happening right now, but then some of the bigger.

ethical questions, which feel like stuff that gets explored in sci fi is no longer the realm of fiction. It is the realm of, you know, kind of society today and what should be governance today. I wonder if that's occurred to you and if you've got a point of view on that. Absolutely. And I think sci fi to some extent is us humans imagining a future and, [00:18:00] and therefore This is a trajectory that we very often then start building.

And, and we imagine a better world where technology can help us or destroy us. And many of these scenarios are becoming real in many instances. So I guess, my job is to look into the future. So I'm, maybe less shocked, but even I regularly get amazed because I'm lucky enough that I work with you.

All the leading companies in the space and they take me behind the scenes and show me stuff that they're developing and i'm regularly blown away by how fast this is all developing and and how amazing these capabilities are becoming. So yes, a bit of both. Well, without



maybe giving, I'm sure you had to sign NDAs for all of that stuff.

So without really giving anything away, do you have a moment that's specifically resonant with you over the [00:19:00] last, let's say two years, when things have really accelerated that you saw something behind the scenes and were like. Wow, I didn't see that coming, or at least not this quickly. Yeah, so for me, two, two things.

One is the crazy capabilities of generative artificial intelligence, especially the, the capabilities to create multiple types of content. So we are all familiar with text and chat. But the amazing capabilities to produce music, for example, I've recently been taken behind the scenes of one of the largest tech companies on the planet.

And they showed me a music tool where you simply write a text prompt saying, Hey, write me a song, or you can even upload your own lyrics and say, produce me a song that sounds like Adele that is 1990s rock, whatever you want. And, and it then produces a song and I was completely blown away by how [00:20:00] much it sounded like the artist and how much, how, how amazing it produced three different versions of four different versions of these songs and.

And it is just mind blowing and the other amazing cape and then they're not releasing this for obvious reasons because copyright issues that but but this technology is there bubbling in the background while we're figuring out how we can responsibly release it the other capability that I, I'm continuously blown away with is combining AI with robotics and the ability of robots to learn by themselves.

So in the past, again, I've recently visited, um, the, the robotics labs of, of Google deep mind and London. And, and in the past we had to program robots to do things. Now they learn by themselves. So I watched a robot trying to figure out how to pick up [00:21:00] A really complex piece of almost like a really complex Lego piece and then figured out how to put this shape into a matching hole.

A bit like what children do when they, when you, when, when toddlers trying to get his head around this, as we speak, and,

and, So that was fascinating that I watched a robot almost go through the stages of a toddler to becoming almost capable of doing something and then we accelerated this. So there was a, another robot next to it and a person then used a, basically a glove that would then Replicate the robotic arm and navigate and basically showed the robot how to pick this piece up and put it in there and then this bit of information was then fed to the robot that was next to it that was struggling to figure out how to pick it up and how quickly then [00:22:00] learn from this and it became within minutes it was able to replicate this and pick this up in any kind of situation and this for me is super fascinating that we now have The ability of physical robots to learn from experience and from others.

I watched a video of a robot destroying two players in badminton. So it was one robot against two humans and the robot was almost standing stock still in the middle and the two humans on the other side of the net were all over the place and it was like, it was absolutely daunting. looking at it to be honest with you.

Robots will rise and let's, I'll go back to it. Let's hope they're benevolent. Yeah. Well, they've got the evidence on you, Rob. Yeah.. The corpus of information against me. Yes. Yeah. It's like, it's all there. There's very little you can do about it. They're already wired into it. They're probably lurking in the background, just waiting.

They're just waiting for the, [00:23:00] uh, the, you know, that is the terminator thing though,



isn't it? The intelligence is there and they just wait for the factory to the, For the ability to create something physical and then they romp over us. So maybe the dystopian future isn't that far away. Every time I give a keynote somewhere, people come up to me and say, this is probably an equal measures, exciting and scary.

And I think it's really important to reassure people that those, even though these capabilities are amazing, these capabilities are very limited today because. Even though these robots are able to pick up little things, they're not yet able to do anything else. And if we, we sometimes think it's amazing to watch generative AI tools, create images, compose a piece of music, but all they're doing at the moment is they're just simply predicting the next sound, the next word, the next pixel without sound.

Understanding what they're producing without understanding context without having [00:24:00] any understanding of the world around us so there are huge limitations i've recently just written an article after a conversation with the chief scientist from meta about how dumb current. generative AI tools are and they're literally just parrots.

They are pretending to understand and replicate what humans can do, but it's a bit like a parrot can make noises that replicate our language, but they don't really understand what they're saying. And the same is true for the AIs. I think they're just pretending. Yeah, exactly. But it's a very nice bridge, I think, into talking about your latest piece of work, which is about gen AI in practice and looking at over 100 ways that generative AI is changing business and society.

So give us a sense. I think we've probably established quite a lot of the context for this in the last conversation, but anything else you'd like to add to You know, what drove you specifically [00:25:00] to look at it in the way that you looked at it right now? And in a second, we'll come on to the areas you've specifically set out.

Yeah. So I always try to pick up the biggest trends that are relevant for the next five years and then focus on writing a book on those. And with generative AI, It is clearly the most important technology trend that has the most transformative impact. And I believe that it is, it's the leading edge of AI right now.

And I believe AI is the most powerful technology humans have ever had access to. And I, I, Absolutely believe that generative AI will transform every single industry every single business and every single job in the world and this is why I wanted to write a book about this and and the challenge was actually not to write a book that runs into 800, 000 pages because there's so much to say and [00:26:00] I see my role as someone that can distill some of these really complicated knowledge.

Trends make them really easily understandable and then showcase practical examples. So this is not a theoretical book. This is a book that really showcases how organizations are already doing using it today and how it will transform businesses across all sectors over the coming years. Let's start with that.

And actually this, I think what we're about to go into here is, is really what's in my mind when I was made the point earlier about this isn't sci fi anymore. You know, the sort of concerns that you're talking about, the fact it's going to impact every single human on the planet, pretty much every organization on the planet is very profound.

And it's, and it is now, it isn't something that's maybe, you know, a thought piece that's going to happen in 15 years. This is like right happening right now. So let's start with organizations. Now, at the moment, [00:27:00] what we see in the sort of practical reality of today is there



is a lot of Proof of concept in going on around jenny i there was an interesting stack that came out of google next that they said the 80 percent of proof of concepts haven't got a business plan they don't really know what the outcomes are but actually organizations are investing in this stuff nevertheless and that's the first time we've seen that level of I think innovatory investment just going in because everybody's got a sense of what.

This can bring but we're not really getting our arms around it beyond some of the more basic obvious stuff like call center chatbots and stuff like that what impact you think we're going to expect on things like organizational shapes for example I believe it will change every aspect of every business so for me.

As a, as a business, what we need to understand first is what are the capabilities of these AIs? How will this AI interact with other capabilities, other technologies too? Because it's not just, we [00:28:00] talked about the impact on the metaverse, for example, but there are also other technologies that are Accelerating AI.

So we have things like cloud computing, 5g edge computing and quantum computing that are completely accelerating this. So it's really important to understand those capabilities and then realize that this will have an impact on how you operate as a business. So your business operations. And it will impact on your products and services and the things that you are selling, they will become more adaptable, more intelligent.

And how does that ripple out into society, do you think, as one of the areas you focus on in the book? This isn't just a tool set that's going to impact on, you know, services that you might consume or businesses, it's going to have a societal impact. And we we've seen, you know, whether you think this is positive or negative, we've seen the sort of societal impacts of things like social [00:29:00] media and other technologies, particularly over the course of the last maybe five or 10 years.

Do you have any suppositions on what you think at least the short term impacts of AI is going to be? I think it's very difficult without getting, you know, maybe too dark or too optimistic, perhaps to look. 10 years out, but what do the next few years look like for you? Yeah. So where do you start answer a question like this?

Because the impacts are so wide and they are both positive and negative. There are, I think in the long run, it will make our world a much better place and more human place. Um, it will help us to, as, as individuals. Focus more on our truly human skills and our capabilities and we will outsource lots of things that taking away from our amazing competence and capabilities to AI so if you think about my day to day job.

I need to, when I write an article for Forbes, I need to edit the headlines [00:30:00] because every single word in the headline or sub headline needs to be capitalized. That's such a waste of my time to do this. And this is not how I write. When I write, I'm in the flow, I type, and then I need to go back into the flow.

Edit this. Now a eyes do this work for me. I was just going on a walk the other day with my wife and she was saying, I wish people would teach you what trees around us just looking at all these amazing trees. And again, I whipped out the latest version of chat. GPT took a picture of a tree and say, Hey, which tree is this?

And it was explaining us and it was telling us and yeah, So, or you could take a picture of your, your fridge and say, Hey, can you recommend something I can cook with the ingredients in it? And it can then make up recipes and you can say, okay, I want a vegan recipe. I want a spicy recipe, whatever you fancy, and I can, can make this up for you.



So there are so many different ways. Parts of [00:31:00] life that will be impacted, hopefully for the better. Um, there are also so many dangers with this technology. So for many of the things, as a world, we are facing huge challenges at the moment. We're facing, uh, and. Environmental challenge we are facing an economic challenge we are facing huge problems around polarization in the world and we are facing huge.

Challenges around inequality when it comes to health care and education and with all of these things i believe jenny i will have a huge impact and and very often. Also a double edged impact where you on the one hand side, it will help us solve some of the problems. So for example, if we look at the environment, we need these amazing capabilities to help us.

Make our energy use more efficient [00:32:00] and a good example is Google using AI to make their data centers more efficient and actually reduce the energy consumption by 40 percent if we could replicate this across cities across the entire energy grid that would be amazing we can use AI to make our devices more efficient we can use it for so many different positive things at the same time AI uses huge amounts of energy.

Um, and then this double edged sword happens for in so many different areas. If we look at some of the threats that now are posed by using generative AI for hacking and phishing attacks, they are becoming so much more sophisticated where it can replicate not only. Emails but voice messages and other things and that's a real threat around misinformation that we now have these content farms that churn out information where i have [00:33:00] a clear fear that maybe in a few years time the vast majority of content online is.

AI generated. So, and, and this can obviously be used for social manipulation. Then we have biases in, in these, we have autonomous weapons. Um, but at the same time, we can use AI to help us protect us from these things. We can use AI to help us find fake content and verify things. On social platforms, we can use AI to protect us against hacking attacks.

Becomes terrifyingly circular that doesn't it, which is we need AI to generate the information. Then we need AI to, to search through the information to make sure that the, uh, the, the information generated by the AI is not biased or untrue. And therefore we need AI to double check that. You know what I mean?

It's like, it's almost like we get ourselves into this, this problem didn't exist [00:34:00] before. You know, I mean, we're now using the technology to solve a problem that the technology we've just invented caused in the first place. Yeah, not quite, but I can see your point. So in certain instances, we have always had people trying to hack into our systems.

Now they use AI to become better. We've always had humans trying to protect us against hackers. Now they use AI to make themselves better. I actually believe that many of the biggest challenges in the world, we can't. actually address without the massive power boost and intelligence boost that the combination of humans plus AI will enable.

And so for me, a really good example is healthcare, um, healthcare research. For example, if you, if we are trying to figure out how to find treatments for cancer, for genetic diseases, this is. hugely complex. Now we have AI [00:35:00] that can enable this. So we have the amazing progress in protein folding that really helps us understand the basis of life.

And we can now use AI to help us develop. Firstly, help us find gene markers that we can target. It will help us come up with new medicines. And And this for me is absolutely amazing. There's huge leap in healthcare that AI is enabling at the moment. We've had a similar conversation about quantum and how quantum is really going to be transformative in terms of what it brings to the table in the world of healthcare and say like the climate crisis.



Have you done any thought or work on what happens when you bring gen AI and quantum together? What do you expect the outcome of that clash to be? Yeah, I, I think AI in general and generative AI is more specifically will [00:36:00] benefit hugely from the capabilities and the promise of quantum computing because most of the challenges we are trying to tackle with AI are really complex and the more complex they become, the more beneficial quantum computing Technology will be so for me that is a that's a huge promise and i'm quite excited about how fast progress is happening around quantum computing at the moment where lots of vendors are now making it available as part of the cloud offering so you don't need to think about building your own quantum computers you can simply access this technology for workloads that required via the cloud which is super exciting.

for listening. When you think about progress and you think about the vast amounts of processing power and different ways of processing information that quantum is going to bring along, think about the acceleration in gen AI over the course of the last 18 months and it shows no sign of stopping. If anything, it's, [00:37:00] it's building.

Momentum, where does AGI fit into this for you? So artificial general intelligence and, you know, future inference and actual, I don't know whether I want to go as far as self awareness, but you can get, you get where I'm going with this. How far out is that for you? Do you think? Yeah, so I, everybody loves a tech prediction.

Yeah, no, it's super interesting. I'm not in Elon Musk's. Camp where you, where, where you think that, that generative artificial intelligence is around the corner, um, I believe that as humans, we will get to this stage where AI will be able to, to do everything that humans can do, if not more. But we are a very long way away from this.

And so I was talking about these, these smoke and mirror effects of generative AI today that they are, [00:38:00] they look like they know everything and can do everything, but they don't understand the word around them. They don't understand context. They don't understand what they're producing. And in order for An AI to be truly capable of the things that we can do, we need to design completely new AI systems.

We need to complete, completely redefine how these AIs interact with the world, how they create their own world models. And we are not anywhere close to this today. There was a, there was a great example, a discussion I saw it was this week where they said to exactly your points. If you want an AI to. look at a cow and say, that's a cow.

The number of instances and training you need to do is still quite extensive. You know, you need lots and lots of examples of cows and it's very numerous. If you get like a three year old watch Clarkson's farm. Yeah. Well, this is the point. If you get a three year old and [00:39:00] show them a cow, whether it's virtual or it's in the real world and say, that's a cow.

And then show them a different type of cow and say, that's also a cow. That's pretty much the three year old understanding what a cow looks like, and can then identify cows. So the sophistication of the human to learn is still radically Much higher than what the algorithms do, but you're absolutely right.

It's just a time thing to the, the algorithm to get the, to the sophistication that allows you to go. You need one or two examples and then it can work out the extrapolation. The human is still far better at that. And there a lot of debate going on about the algorithms used to train and to your point needs a radical change to be able to get to the level of sophistication that's required to present What would be AGI as a concept?

Yeah, so I I think we are You A long way away and and to some extent all of those



conversations challenge us to think what actually makes us human because we spend so much of our life doing stuff that we [00:40:00] shouldn't really waste our amazing human capabilities and competencies on. Um, and I, there's so many examples for those, uh, someone sitting at a supermarket checkout, someone driving a taxi, someone analyzing data in a spreadsheet.

These are all interesting things and I completely acknowledge that this is people you need this these kind of jobs to to earn a living but are they really the things that make our world a better place and will push us as humans forward and they're not they're really holding us back and if we can give some of those things to the machines and focus on the things that really make us humans that will make our world a better place in the long run.

It's not the there's been a long debate in society economically around productivity generally which is we are [00:41:00] struggling to get the productivity boost we need to be able to get you know we still wrapped around the axle of capitalism and growth and that need but we are are. Productivity is plateaued and we need to rise again.

It feels like with the assistance view of the world, which I can give us in the next few years that that might be the place where we can get a productivity boost and allow that to start to rise again. I don't know if you have the same view or not, but be interested to hear your thoughts on that. If that because that is a thing that we need to focus on to get the economies back on track.

Yeah, I think the promise is absolutely immense that the kind of productivity boost that AI can give us and even low level estimates look at a 40 percent increase. Increase in productivity where the current AI systems are already able to do about 40 percent of what humans do right now. And, and I believe that [00:42:00] this is only going to go up as these tools.

Increase and become better and evolve well so maybe to bring today's conversation to a bit of a close. Let's pull our focus right back into today and the exploitation of gen AI in businesses today as I think I mentioned earlier on, there's a lot of proof of concept going on at the moment, there's a lot of relatively small scale or relatively obvious implementation of things like chatbots going on at the moment, I guess I wonder if you can leave us Bernard with some thoughts on.

From an organizational perspective, if you were a leader of an organization, how would you find your way into this? And how do you break through that POC cycle into something that's more at scale and more meaningful to organizations? I think it's really important to look at the culture in the organization.

Um, what you want is a culture where people are curious, they are open. Open to learn they are able to experiment [00:43:00] and where they have a leadership culture and a leadership team that is looking beyond the short term profits and the firefighting in the business to say okay what is actually on the horizon how are various technologies evolving and most importantly how can we use them.

As a company can you use them to make the world a better place and address some of the biggest challenges, we are facing I think that would be an amazing starting point and then you talked about the fact that lots of companies are experimenting with things they have proof of concepts. But we see very little scaling up of these technologies and this has always been the case I look at pretty much all the big technology trends and we've always seen that and for me it's really important that organizations approach this strategically and say ok now we figured out [00:44:00] how these technologies and how generative AI is going to change our



world and how we could possibly use it.

That's really focus on the big-ticket items and. They have scalability in mind from the beginning, and I think it's okay to focus on a few quick wins and developing skills around some proof of concept. But really focus on this strategically because I believe that if you don't see yourself as an AI company or at least an AI enabled business.

Every day you don't, you will fall behind. So that they are two really important starting points for me.

Rob, I know you've been all over this this week. So what have you been looking at? Love it, Dave. Well, so akin to the conversation we've just had, [00:45:00] one of the big things we're seeing is the rise of the AI. So augmented people with tech. And we saw the chat GPT 4. 0 come out where we've seen, they've, they've taken the interface past text, and now you can have a conversation and they've given it a bit of SAS and a bit of personality as well, albeit, you know, we all know it's an algorithm that's.

Thinking what we want to, which we discussed, but it is becoming far more pervasive where it is and how it interacts with us. And it's getting easier and easier and the sort of use cases are rising. So we see traditional search dropping. So for information retrieval, we see it being creative and assisting us with, I still get it to write haikus regularly.

I cannot write a haiku, but the AI can do it almost instantly on a theme, which I still, it still amazes me. I get quite a lot of them from Rob. So, yeah. I can testify to that, uh, data analytics. You get that. I mean, we've discussed that they get the translation use case where it's now built into the phone.

You've got the [00:46:00] educational support where I want to learn about something. You know, you've seen that rabbit where it's, you know, looking at something or it's, uh, you can ask it a question. You say, what's that, can I buy it? What's the cheapest price, all that sort of stuff. So the general assistant type thing.

And then the entertainment angle, which is write me a song about this or that, or the other. Right. So we see it coming. So my view was, how long is it before we as a society accept that we have a little assistant badge on us and it's communicating with us constantly, letting us know what's going on, pointing out things, giving us information so that we've moved away from tappy tappy on the keyboard or, you know, having to press a button on our phone and into something that just, you know, we wear every day and it just helps us out.

So I suppose it's a bit of a tech prediction, but I think we're not that far away as we've seen. Early prototypes arrive and I'm starting to think about the, you know, is it a two, three-year horizon where these things start to become commonplace? And, you know, you've got your wallet and your keys as you run out the door with your phone.

Now you've got your AI assistant that has to go with you. And I'm just supposed, it [00:47:00] was that conversation said, do we think this is coming soon or are there some technical hurdles? You know, it feels possible soon, but I'm interested to get the view from everybody about what they think. The mind blowing.

Moment of the week to do with genitive AI to me and I seem to I feel like I have one of every week or every two weeks was a little Instagram video of a developer is a guy who is probably in his late twenties early thirties and he was you know he had his phone out in front of him. As if he was having a video call with another human being on the screen, there was like a white screen with like some sort of animated, not an animated face.

Even it was more just like an animated shape that was moving is that as the AI was talking



and he asked the AI about. Going to an interview. So he was, you know, he was dressed in a t shirt. His hair was a bit ruffled. He starts off fairly standard with the AI, like, hey, I'm about to go for an interview as a developer.

What would you, you know, what would you recommend? And the AI sort of churns out, [00:48:00] you know, a few bullet points to him. But then he goes, how do I look? Do I look ready for an AI? And the AI goes, well, you look like a dev, but you could do with running a comb through your hair.

Proper assistant though, isn't it? You would ask a human that, and that is a human esque style response. And then he, uh, Grabs a hat, like a sun hat puts a sun hat on. He goes, what do you think about this? Do you think I should wear that? And she goes, nah, drop the hat. And, and what amazed me about this interaction was, was obviously it was doing its usual thing where it was providing some general information at the beginning, but then it went into a much looser conversation.

It was using sarcasm, and it was recognizing kind of characteristics in front of it and advising on characteristics from a completely visual perspective. Your tree example reminded me of it a little bit, Bernard. That was the first time I'd seen that level of naturalistic [00:49:00] conversation. The incredible use of nuance in the way that it was responding.

And like I said, sarcasm and humor in the way that it was responding. And I was like, you know, it might, to your point, it might be parroting some elements of it, but to me, it felt like there was sort of legit interaction there because it was responding to, you know, how the guy looked and what the guy was doing as much as it was providing information.

It goes back to the Turing test. Concept, which I don't think we should ignore, which is if it behaves like a human and it's imperceptible that it is a human style response, then what is the classification of that? Which was always the, you know, the test, is it a human at the other end or is it a computer?

Well, if you don't know, then it's still a value, isn't it? So does it instinctively and intrinsically add value to the interaction? Well, then yes, that's goes to the point, which is you get. I almost attach this AI assistant and constantly ask it questions about what's the tree? What do I look like? You know, it feels like we're not far away.

Do you have a view, Bernard, do you have a view particularly on the AI assistant [00:50:00] point that Rob was, that Rob was raising there, like how close we are to sort of whatever is, I don't know, I think it's being positioned as the follow up to the phone. Like whether, whether it is, you know, like an additional device or a follow up device, how far away do you think we are to something?

Usable I think we already there so in my in my book I make the point that when I abbreviate generative AI to gen AI and actually this when you look at it almost reads like genie and for me it is almost like having the genie on your shoulders all the time so a good example was that my 16 to me last night and was asking for some help to prepare for his chemistry exam today.

And he wanted to understand something that I couldn't really help him with. So again, we, we got the AI system out and, and so have a conversation with her. And this is, this was the latest version of ChatGPT. And, [00:51:00] and he, It took him a little bit of time to get used to this conversation, but he could then have this conversation and slightly deep dive into this and say, okay, but how about this?

And why is this the case? And they ended up having a 20 minute conversation that really



clarified it for him. That's another use case the teacher you can have a conversation and learn and it's like a teaching interaction isn't it i mean that is fantastic so yeah it's just you know it's like the old star trek thing on your side you tap it and ask a question off you go and you just like there's that assist i think that'd be great i just they just need to make it small enough with enough battery power so it can last the day and then off you go isn't it Well, look, I think we're nearly there.

I think we're nearly there. What a fascinating conversation we've had this morning. So I want to say a big thank you to Bernard. Thank you for taking the time to discuss that with us today, Bernard. Such a pleasure. Thank you for having me, Dave and Rob. Oh, it was, it was our pleasure too. And hopefully we are going to have you back for a number of other episodes, deep diving into specific industries.

Yeah, I would absolutely love to. [00:52:00] Well, we are very much looking forward to that in the meantime, if you would like to dig into Bernard's back catalog of books and his recent work on gen AI, then the latest one is called generative AI in practice, uh, by Bernard Marr. So, uh, please go and have a look at that.

And we are going to have a number of conversations with Bernard over the course of probably season four of the show, which is going to kick off in September. So we're looking forward to that. But before we get to it, Bernard, we end every episode of the show by asking our guests what they're excited about doing next.

And that could be, we've got a great restaurant booked at the weekend, or it could be something in your professional life or both. So Bernard, what are you excited about doing next? Yeah, I'm just, just about to hop on a plane to go to Boston to go to a big conference where I do a keynote. I'm looking forward to that.

And I've also just started writing a new book on AI strategy, which is keeping me very busy. Fabulous. Well, maybe we'll get some tidbits on what you're thinking about in that book as we have our next conversations. That would be fantastic. [00:53:00] Yeah. Looking forward to it. Cool. So a huge thanks to our guests this week.

Bernard, thank you so much for being on the show. Thanks to our fantastic 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 and Rob Kernahan. 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.

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