



Jake 00:16

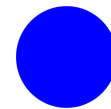
Thank you, DC for taking the time to join me on the podcast today. I really appreciate it. I've been now looking forward to this conversation for a while we met on on Farcaster we were talking about the Apple vision Pro and the in the vision channel, which is sort of designated for that type of discussion. And for those who don't know, or aren't familiar with forecaster, it's this sort of decentralized social network. You know, for now kind of looks like a crypto version of Twitter or something like that. But the long run, ambition is lot greater. So anyway, met on there just, you know, realized we had this common interest and experimenting early with the Apple vision, Apple vision Pro, obviously the new, you know, VR AR headset. And, you know, I reached out and wanted to see if you wanted to do a podcast conversation about it, and you're fortunate enough to oblige. So great to be on with you today. I think before we dive too deep into things, I would love to kind of start with your story and some of the decisions you made along the way to get to where you are today.

DCinvestor 01:13

Yeah, thanks. Thanks for having me on. Jake, I'm excited to chat with you on this topic. And I think most people know me, from my presence in kind of the crypto community where I've been pretty involved. I first got into crypto in 2013 bought the Bitcoin top, so the bottom during the bear, I feel like a lot of people from that timeframe might have similar stories. But I was smart enough to come back in around 2016 and 2017, and found out about this cool thing called Aetherium. And ever since then, I've just kind of fallen down the rabbit hole just fascinated by how all of these new functionalities that Aetherium brings to crypto and kind of this idea of a global app and trust layer. And that is decentralized censorship resistant permissionless. And so that's that's kind of been my focus. And over the past few years, that's been my sole focus more or less. And prior to that, I worked as a management consultant for many years, decided to leave that to focus on crypto full time in around January of 2021. And moreover, just an overall technology enthusiast I grew up with a lot of you know, I grew up in the 80s and 90s, which was I think more of it was an interesting time for us, someone sent me a link that says where the Star Wars generation, because we're not quite Generation X, we're not quite millennial. And what that means is, we grew up with a world that was analog, right, we saw the world as, as this non digital thing we grew up with records with and then cassette tapes. And then we saw this explosion of this digital world, we were some of the first people who are online as teenagers. And I feel like that kind of shapes my view of a lot of these technologies is that that goes through to the crypto to AR VR and everything else that's to come.

Jake 03:16

So I guess pressing into that a little further, like, I think a lot of people have had on the podcast to your point, it's kind of like you're kind of from this in between generation where a lot of the guys I've had on are maybe a bit older, or you know, in their 20s or early 30s or something like that. So you kind of grew up or like you were like you said, you know, in high school or whatever, one of the first generations to kind of like come online. How do you think that maybe like seeing the emergence of the Internet and just the digital world more broadly, kind of position you to be able to see like, Okay, here's Bitcoin that's kind of interesting, when we buy



some, okay, that kind of went to zero or, you know, went down a lot of them, they sell that, and oh, here's a theory. And actually, this is really interesting, like, what made you kind of like even aware of these things and being able to kind of appreciate them as you discovered them? Well,

DCinvestor 04:04

I think the main lesson that I draw from all of that is how skeptical most people are about technologies that ended up becoming world changing. And I think that skepticism is natural. And I share it too when I see my first exposure to a lot of this stuff is to be skeptical. I had heard about Bitcoin years before I actually bought it. And at the time, I was like, well, this doesn't even make sense to me, right? Because I actually for people like me who grew up during that period, we were all copying software copying all kinds of content. And it was just like it was the idea of digital scarcity almost didn't make sense to me, right? And it took me really diving into things and understanding Oh, this is something that's totally different from that, and it's almost ironic that it uses similar technology to like peer to peer file sharing, like which Napster pioneered and Bitcoin is basically just almost like Napster running the money network, which is Almost like, you know, so it's almost ironic in some in some respect. But I think, going back to that skepticism, I remember growing up in the 90s, being a teenager and getting on this internet thing, you know, and I was probably one of the first like, I looked up the number back then. But I want to say it was like less than 10 million people were online at that point. It's not a lot of people. And my parents were like, What are you doing wasting your time on this thing? Like, why I'm like, You don't understand. There's all this like information out there, I'm chatting with people all around the world on various topics. You know, I was into playing games like Quake and Warcraft two, and you could find people to play with online and all of that stuff was just so fascinating to me, I was like, wow, there's no way that in the future, we're not going to all be spending a lot more time online. Fast forward, 20 years later. And here we are spending a lot more time online, doing meetings online, doing interviews online, all of this stuff was totally inconceivable back in like 1992. People just didn't even consider that that was possible. And so for me, when I came across a technology like crypto, my first, my first feeling was to be skeptical. But my next thing was like lagging, like, ask some more questions. Because I don't want to be like the person who created the internet 1992. And there were a lot of people who were feeding the Internet back then. I mean, everyone thought it was like, the very common perception, even for those who knew about it was this is pointless. There's no way any corporation is ever going to use this, right. And then all of a sudden, companies started launching websites in like, the late 90s, early 2000s. And all of a sudden, that's when the Internet became something that was like, Oh, here's something that's relevant to my life, I better learn about it. So I got into Bitcoin, kind of with that mindset as I start to learn about it. And of course, it's a hyper speculative asset. And back then it was even more speculative. And the flows were a lot more dramatic. And I saw it quickly run up to 1000. And then I saw a crash. And I didn't really understand the mount Gox situation that well, it was kind of presented as Bitcoin was hacked. And rather than doing my due diligence at that time, I was like, You know what, I don't feel like dealing with this anymore. We'll, we'll see if it ever comes back, fast forward to 2016 2017, when it recovers at the all time high. And that's when I was like, oh, maybe it wasn't a scam. And I feel like that arc that I just described, is pretty common for people in crypto no matter where they start. So even people from last cycle, who may have gotten burned by buying the top and selling the bottom, they're going



to at least some percentage of them will be back in a year when hopefully, we're back at New all time highs. And so I feel like that's the boom and bust of any emerging technology, especially one that is like network based like cryptocurrency is, and I we've definitely seen the same thing for like, video games, we'll probably see it with AR VR, to some extent, and so on. Yeah,

Jake 07:52

I think that cycle definitely repeats among all different types of people across all different, you know, aspects of the timeline, like you said, and a lot of people who sort of thought it died, you know, that cycle, we're gonna be back this cycle with the same mindset that you had, it's like, it's easy to appreciate when you see something that you think is dead, and then three years fast forward, and it sort of like, comes back to life, it's pretty interesting, like, fundamentally, and if whatever got you to play with it the first time around, probably going to get you to go back and continue playing with it in the future. And then you sort of understand that this thing dies and comes back and you get on board, maybe for the long haul. And you know, some of us were, you know, maybe able to participate in earlier cycles to sort of get over that hump, and other people are coming online now. But you mentioned this is not just for, you know, crypto, but also potentially for like VR AR, which has had kind of like an interesting history to date, where it's been like super, you know, very, very much like hyped and everyone talks about like the metaverse and all of this, and it's always like, oh, you know, this is coming VR is right around the corner, etc, etc. But then, like, you know, the Oculus comes out, and it's like, very cool, you put it on. For me personally, I think the first I might have tried the original Oculus, but then I tried like the quest to I think that was the first one that I owned. And I put it on and I'm like, wow, like this is literally awesome. Like my I'm like, you know, jaw drop. But then like, you know, I use it a little bit more. And like, I just basically don't end up using it. It just gets like collecting dust in the drawer. And it's weird to reconcile that because it's like, here's this thing that's like mind blowing and like awesome, but I just don't use it. And I was very curious with, you know, apples reliefs to see, is this going to be a similar type of situation? Or is this going to be like a genuinely new computing paradigm? And something that I you know, expect to use for hours a day, every day or something like that. So I guess what were your initial sort of, you know, steps into the water on VR and AR overall and then initial sort of impressions before you even got the apple headset like what were you thinking and anticipating for it? Sure.

DCinvestor 09:58

In You know, I got into VR, as being like an early adopter type, right? I already had like a gaming PC that was relatively powerful back in like 2016 2017, I had like a 1080 Ti card, which was relatively powerful at the time and was sufficient to run VR. So I had that as table stakes. And then I saw the rift coming out. And I thought it was like an interesting concept. But it seemed really targeted, especially with the, the, the developer kits, and so on, it seemed more targeted to developers. So I was like, I'm gonna wait a little bit on this, it didn't seem like it was that easy to use, there weren't that many compelling experiences. And then when HTC released the Vive, that was the first headset that I bought. And that was one of the ones where you have to like set up the base stations around your room, it has to be tethered to your PC. And when I first got in there, I kind of had a similar experience where my jaw dropped in honor. What's interesting is the quality of the PC VR experience,



actually exceeds the quality of some of the mobile VR experiences, which I'll talk about in a second. But back then, it was extraordinary. And I was demoing, I invite all my friends over, I was like, You guys gotta try it. And my favorite use case ended up being like inviting people over to like, try it out. And just watching the reactions. Because everybody has like this joyous feeling of excitement, like, wow, you use it, and you're like, this is definitely the future, you can see this world where you're using this technology for a variety of different things moving forward. But certainly for gaming, it was exciting. And from there, I've owned a variety of different headsets, like the Oculus go, I got a rift s, I had the Quest One, two, and three, I have a PSVR. Two. And I you know, in using all of those, I wouldn't say any of them ever got back at that magic as that first moment in a really palpable way. I mean, especially when I got to the, to the quest line, which and I want to give the question of credit, it's definitely a very impressive piece of engineering, all three of them have been, and they're delivered a fairly compelling price points that are accessible. And that has been the first exposure for I think most VR participants of that point. So I really have to give Oculus and and then met some credit for being able to produce products which got it back because not everybody has that 1080 Ti and these days, we're really talking closer to like 3080 or 4080. Card gaming PC. And so the ability to break out of that, at first, I was kind of skeptical, but then when you do the wireless experience, you kind of can't walk away with okay, this is actually a big deal. Because being tethered to your computer just felt like such a step back like you're I'm playing these games, I'm like turning around a lot. Cables getting all tangled up, people did all kinds of crazy solutions, like have suspension systems running in their ceiling. So the wire didn't get tangled, I didn't do all of that. But when I use the quest for the first time, just being able to turn around 360 was was huge. And I think that the subsequent iterations of the quest have improved the graphics and so on. But fundamentally, those devices have been really focused on gaming. And the way that works is you put it on, you play the game, and then you take it off. And in the quests are fairly well designed to be able to move around and fairly flexibly. But you're not most people are not in there doing computing tasks wearing the quest headsets, even the quest three, I think this newest generation of quest, had some innovations as it relates to the past through cameras are much better, and they are color. It also had some innovations as it relates to hand tracking. That was, that's kind of cool. I wouldn't say either of those is very good. It's just like kind of there. And it gives you a glimpse into what that future is. But I didn't find myself using those headsets a lot. And I think that changed for me when I when I got the vision pro, you know, two weeks ago? Because at first I was like, Well, I'm gonna try this thing out. I want to see how it works. I was just curious because Apple, typically when they get into a market, right, they don't have acid, they're normally going to come to the market with something that's good. Normally, it's expensive, which this is. It's not going to be perfect. It's going to be clunky, but it's going to give you a full featured experience of what is possible. And this has been true in basically every major product that Apple has released for the past like 30 years. They do try to do this and it always starts off as super expensive thing that very few people can afford or need. And then within three to five years, it becomes something that a lot of people want and then later need.

Jake 14:42

Yeah, no, that's a great background on sort of your experience. And obviously I think it's safe to say you're like 99.9 percentile of like, you know, dabbling with all of these early headsets and experiences and certainly like I



think I have probably 99 point something and Just in terms of, at least globally, maybe in the US just like 99, or 98, or whatever, but you're like at the cutting edge of like having experienced all of these things as they've come out, and have been having been done it for a long time. And also being someone who can probably appreciate some of the earlier use cases around gaming and things like this. So now we sort of have your impression going into the apple headset, we're like, Okay, I'm gonna try this out. I'm pretty optimistic here that this is going to be like, fully featured, and at least give glimpses as to what's you know, coming in the future, and it's gonna be too expensive, and it's not going to be quite right. And it's gonna be clunky. But there's going to be a lot there. When you actually got your hands on it, and you tried it out. Maybe not a jaw dropping experience, like your first experience, because it's just hard to replicate that. But what were your initial impressions?

DCinvestor 15:47

Well, my first exposure to it. So my first exposure to it was watching the video that was released, I think, like seven months ago, where Apple put out that promotional video. And at the time, I was I didn't find it that compelling. I was like, okay, am I really gonna want to do work in this headset, and I just saw, I felt like it was the promotional video, like, made it feel like everything was like on rails, which was kind of an experience that I was used to actually in the class where everything feels like it's on rails. And I was like, I don't, I just didn't, I did that it didn't sound like it was it for me. And I posted on my twitter at that time, I was like, this looks interesting. But the idea of having like three iPad, windows in front of me doesn't seem that compelling. That was my thought that was my takeaway. And then as we got closer to the launch date, they started to reveal a little bit more. And at first, I was like, Ah, it's too expensive. I don't know if I really want this. And then I finally gave it I was like, you know, if Apple's coming to the market with this, it's got to have something that's pretty interesting. And it's kind of for me, you know, being fortunate to be in a position where I can afford I was like, I think it's worth the price of admission to see what they come up with. And if I really hate it, I'll return it. And you know, that was kind of my rationale. So I went and I picked it up in the store launch day. And they actually had me do the demo, which I don't know, if you did the demo, did you do the demo when you got yours?

Jake 17:05

The demo like something you have to do in store or just when you first booted up it has like you click on the different buttons and things like that.

DCinvestor 17:13

Yeah. So if you buy it in the store, or if you pick it up in the store, they actually walk you through a demo, and the light seal fits and all that stuff. So the demo was really interesting, because I had done VR, a fair amount, as you mentioned. And when I got into it, I didn't know exactly what to expect. But the first thing I noticed was, Wow, this is way higher resolution than anything I've ever used. And it was noticeable. It's to the point where, you know, in almost every headset that I've used, some level of screen door effect is perceptible. And that's where for people who use VR, when you're in it, you can almost see something that looks like a screen on a screen door and a screen window, which is overlaid across your view. I think the quest three did a great



job at minimizing that more. And the quest uses I think LCD panels. But this is using an OLED panel is the first time this kind of panel has been used in this kind of headset with the with this kind of pixel arrangement. Because the for example, the PSVR two, which I've got one behind me here and my racing rig hooked up to my PS five another room that has like a, I think it's the pentile arrangement. So you can see the pixels really notably, learning division pro, you really can't see them. It's almost like wow, this is like super sharp. And the pass through I think the one area where I felt like I was oversold a little bit by the early reviewers was the pass through, because they're acting like oh, you can put the song and you can see really clearly and you know what, it's not bad. It's definitely better than the quest for me the quest is really worth it, especially around where your hands are, right. But that's that was one thing. The other thing was the hand tracking on the vision Pro was incredible, just the way that it could like replicate your hand. And it could include apps in front of you like if you put your hand in front of an app window, it shows your hand. And that is so important, like for capturing your presence in this virtual world, right. And Apple have presented this as an AR headset, I think the reality is it's a VR headset with like an AR pass through mode on it. But it's actually like pretty good. So there's a lot of these little things that I started to notice with the vision Pro, specifically that resolution the hand, the hand occlusion, the hand tracking the eye tracking, so the vision probe and put it on the way that you interact with apps in there, as you know, is you use your eyes. So you look at something you look at a window and then you tap with your fingers. And that that is your interaction. So that's the equivalent of moving your mouse cursor or your Oculus laser pointer in the Oculus, the metta quest, laser pointer inside your headset pointing at something in clicking. So that's all replaced by an eye track look and a tap. And then the sound was also super, super impressive. I mean, it's almost like you got speakers All around you. And the quest had pioneered some of that in had been speaker technology. But I feel like Apple kind of nailed it. And so the thing is like, if you look at all these things individually, you're like, Oh, it's just like an iteration. But when you bring all of those types of factors together, it feels pretty revolutionary. It felt revolutionary to me, as someone who's tried a lot of VR products, I was like, Wow, this all just like fits together. That doesn't mean it's a perfect product. But I think it's, it delivers this experience this integrated, coherent experience, which maybe it takes someone like Apple to come to the table to really prioritize and deliver for the user. And we all know that they do that really well. You can say a lot of things about Apple, but they're good at that.

Jake 20:45

Yeah, there's a few things from what you just said, that jumped out at me. So maybe I'll just like sort of comment on a few of them and keep the ball rolling a little bit. But when I, I didn't have the demo, I had it shipped. So I didn't have any in store thing. So I you know, it was all my own experience. And first of all, you start with like, this sounds silly, and it's not VR related at all, but you start with the unboxing. And like, apples boxes are so good. Like, they're just so much better than any other boxes. So I'm opening this up, and you have like, the whole apple experience or whatever. And then I put it on, and it's like pretty comfortable. Right away. Like I'm like, Oh, this like kind of is easy to put on. Like, I don't have to like adjust a bunch of Scratch straps or whatever. Like it's just kind of fits, I like turn the knob a little bit. But like in general, it just like comes and it fits. And it's pretty comfortable. And it looks nice. And everything like that all so far like Apple experience. And then the very first thing I believe, at least it's the first thing now when I put it on, I think this



was when I first tried it out as well as you sort of your you have the headset on and it's all black. And then there's like some sort of light coming in or whatever, like you'd see a little light. And then you see the Apple logo and like an all black background. And it's like super clear. And that's all you see. And then there's like some sound. And the really nice sound like that's like very pleasant to hear comes on as the reality takes over like your, your screen like the pass through basically. And so it likes to sort of like flips on the pass through, as the Apple logo disappears. And I'm like, okay, like, this is pretty cool. And that's like, before you do absolutely anything that's just like putting it on for the first time. And obviously, you know, subsequently also, that's every time you put it on, you get that same, like the turning on of the device is probably the most pleasant turning on a device that I've ever experienced of anything. So that's pretty cool. And then I thought this was maybe what you were referring to with the demo, but it's definitely something a little bit different. But when you go through there is like sort of a walkthrough of you know how to work the device. And the like, to your point there wasn't when I first put on the quest or whatever, and I played like a game or whatever your you know, that jaw dropping moment, you don't really have that again, like you kind of can only have that once I think. But the equivalent here, like the closest thing to it was in the instructions of how to use the device, it like sort of tells you, you know, where you look with your eyes, and like what you were you were describing, you look with your eyes, and then you like pinch your fingers. And that's how you basically click on it's like the VR version of like using your mouse or something. And it has, like, It trains you on how to do that, or whatever. But it has, like, you know, a circle of like, I don't know, six or eight dots or something like that. And it says like, look at the dot and then you know, click it as like a testing how to, you know, teaching you how to use the mouse or whatever. And so I'm doing that, and I like looking at the data and it makes it sound when when I'm looking at it before I even click it. And then it makes another sound when I click it or whatever, when I pinch my fingers. And so I look at this dot and it makes it sound and I look at the next dot and looks like a different sound. I'm like hold on, I can like play music with my eyes by like looking at these dots. And so I'm like looking at one dot, and then another dot and then another dot and back and forth with like, a little bit of a rhythm. And suddenly, in this like how to the Apple design, I'm literally playing music with my eyes and like, by the way with like my room, you know, in reality in front of me and just these dots sort of floating in space. So I'm like, okay, here I am, like, a minute into using this thing playing music with my eyes. And this is not what this was intended for. So that was like sort of my original, you know, that might have been the biggest wow moment, I couldn't help but feel like you might have a better sense of this, like I didn't experience or at least I don't really remember when like, you know, the mouse came out, like these fundamental innovations and computing and like just sort of how to operate, you know, these different operating systems. But to me, to your point, like the difference between using these, you know, controllers in my hands with the Oculus to and looking with my eyes at like very specific small things in the reality in front of me and being able to pinch my fingers and select it was like okay, this is how you use one of these things. And maybe it's not the final version, but at least it's a big step in the right direction. Yeah,

DCinvestor 25:02

the moment for me was when I was in that headset. And once you break out of all of this, once I got the headset home, right, they had a pretty controlled demo for me in the Apple Store. But I got home and I just



started moving windows around with my, I was able to quickly grab it and just, like move my hand, and whatever algorithm they're using to do that, it's just spot on, it feels so good. Like, it just feels like when I flick my finger, I can put that window anywhere. And I can do I can get it to like within a centimeter or less of exactly where I want it in my virtual space. And then the window, if you have the past through on Castle shadow on on your, on your physical space, which I think like, you know, that's like, to me, like little things like that are so important for making you feel like you're in control of the operating system. And that this is not something that's trying this is not it's not virtual reality, it is trying to be this augmented reality, extended reality experience. And, you know, I want to talk for a second about that, that method of input and where we started, right, because I mean, back when, back when I was young, I want to say it was like 87 or 88 19 87 19 88, when my family got our first computer, I want to say it came installed with dos 4.0, which at that time was a pure command line interface, right. And I talked about in Twitter, I was like this basically got one dimensional interface in a lot of ways. It's basically like you just have a line of text, you're typing stuff in, and the computer does something. And back then I remember being young, and my dad was we I think it came with a 40 megabyte hard drive and 640 kilobytes of RAM, which if you think about in modern terms, you can now print most computers come with like, a terabyte of storage, at least which is many, many times. I don't even what is that? That's like a million? No, that's like, a billion megabytes. I think that's what it is, right? It's a lot, I could be off on that. I think gigabytes, 1000. So it's a lot, whatever it is. So I think it's a million megabytes, at least in any event, terabyte is a lot of storage. And so but I had this 40 megabyte hard drive, and and my dad was like, Hey, this is getting filled up from having installed a couple of apps on there. And he's like, can you figure out how to, like, get this stuff off of here, so we can install more stuff. And I was sitting there like as a, you know, the eight year old or whatever. And I'm just like, Dude, I just have to figure this out. He's like, here's the instruction manual. I was like, okay, and that was like my first experience really diving into, okay, how can I how do I make this kind of machine work. And it is an experience that's totally foreign. By the way, it's anyone growing up today, because they've got a phone that just works all the time, it's always up, it's easy to delete stuff. But even back then figuring out how to delete something was super intimidating. But I eventually figured it out there using the command line I didn't I got lucky and didn't delete any important like operating system folders. And that was my first experience with computing. A few years later, Microsoft released das 5.0, I think it was dos 6.0 that had the DOS shell in it. Okay, and we did have a mouse that was usable in other apps at that point, but it wasn't part of the operating system. But the DOS shell, if I recall correctly, that was the first like operating system app that I used, which had like, you can use this mouse to control things. And you can move, you can move a cursor around between various windows. And then all of a sudden, that was like the first taste that I had of like, Oh, there's another way of like doing computing. I'm not just using this weird mouse thing to play my flight simulator game or whatever, you know, are you using PaintShop Pro or whatever apps, or Print Shop Pro or those kinds of things? These are like all the apps that don't exist anymore for the most part. And so I started using that. And then my first exposure to Windows was windows 3.1, in 1992. And that was where I really saw, Oh, wow, there's a whole nother way of doing computing. And of course, yeah, I mean, they Windows wasn't the one to pioneer that. But Apple had done it. And then even like Xerox PARC had, like, initiated that whole visual, graphical user interface. But once I started using that, I was like, wow, this is so much easier than using the command line. I was like, Man, this is like, I felt like I was like,



could do anything with this computer. Now all of a sudden, having grown up with this, and it was now usable to a point where people who didn't have that level of technical understanding to be able to read a manual to do something could use these tools to do all kinds of magical things. And I felt that way again, when I put on this headset and was doing this while Apple called spatial computing, even though it's just as simple as like being able to move windows to exactly where I want in a three dimensional space. That was so like interesting to me. And the idea and this is just the start of it. Obviously you can imagine AR over overlays on things that you're doing all over that are persistent that stay there when you turn off the headset and turn it back on. So I think like this is our future is having computers kind of wherever we want them. Instead of being buried in our device, we can bring the computer everywhere and do what we need to just interact with it. Like it's just like a tool, like it's almost a part of our environment. So the focus becomes less on, hey, here's this device that I've got to look into. And I've actually feel really disconnected when I'm looking at my phone, and someone's in front of me. But if I know like, hey, if I get an important notification should come pop up next to your head, then don't feel like I have to do that. You know, I mean, like, and even I have an Apple Watch, which does something similar. But I feel like, once you layer in that visual element, I don't know a lot of people think this technology will be isolating. And it probably will be in a lot of cases. But I also think it'd be liberating in a lot of cases. Yeah,

Jake 30:54

well, it's funny, you mentioned the watch in that because I thought of that with the watch as well, people are like, Oh, more technology, like, you know, I have enough technology. And I actually viewed the watch, I got like the first version of the watch, you know, preorder or whatever. And my whole thing, I mean, I must not have researched it too well, or something, I don't think it had the capability at that point to actually have cellular on its own like you it actually had to be in the same room, or at least like the same building as your phone, I think, or at the very least I didn't get the version that had those capabilities. And I got it without knowing that it didn't have that for the purpose of basically having this, you know, watch that I could go out, you know, I was in college at the time. So I was like, if I could go out without my phone, like, that'd be awesome. I could like call an Uber, I could call a friend, I could text a friend, I could coordinate. But in general, I won't be standing at the bar looking at my phone, because I won't have my phone. And I was like so this is like a very cool way to actually leave my phone behind and not having to my pocket all the time, and have this thing that is sort of intentionally constrained. So that I don't do you know, too much of like just scrolling around on my phone. And similarly, I think that's like kind of similar to what you're saying, I haven't thought about it in too much detail. But almost, you know, you can imagine if this sort of develops into a form factor that's a lot easier to wear for, you know, many hours of the day like pair of glasses or something like that. You wear them all the time, you have what you need, all the time, and therefore you don't need anything all the time, like therefore you don't need your phone, ever. You don't really need your computer, ever you have whatever you need whenever you need it. But it doesn't need to be sort of in your face all the time. And some of the like sort of negative repercussions from having this, you know, your phone in your pocket or whatever it might be, might be sort of relieved by having everything available, but not in your face to some extent.



DCinvestor 32:43

Yeah, I mean, I think that's, that's spot on. And especially like for the watch, for example, like even if you didn't have the cellular model, which I didn't have the cellular model when I got my first watch, which I think I got into like gen two or something like that. But I had, but it was still useful because I can keep my phone in my pocket. Okay. And so if I'm sitting there with someone, and if I'm waiting for a text or something, I don't need to have the phone in front of me. I don't need to key I don't need to be like Oh, diagnose it buzz, I don't need to have it, you know, in my hand, I don't need to keep a hold on. Let me just check to see if this person texted you. I know I'll get the notification on my wrist when it comes through. So that's like, I mean, to me, that is a positive model for tech. And I think that the experience of most people who have the watches, it's allowed them to be a little bit more removed from having to use to actually like, stop their attention focus on this device as much this this thing, right? I think this is actually people. It's funny because I think it was like Mike, Mike three enjoyer, who's the guy on Twitter who I've interacted with for a while. He was saying like, all these people are saying the headset is like, Black Mirror ish. And you know it because it's like, it's just TOPIK because everyone's gonna be walking around wearing these. And by the way, yeah, you do see people doing that right now is like publicity stunts. But if you've ever for people on the headset, the last thing you really want to do is walk around in public with this thing. I mean, I could see myself wearing it on a plane maybe. But it's not something that's comfortable enough to walk around with. Right now it kind of Bob's up and down. It's not a light headset, it's I wouldn't say it's more uncomfortable than any headset that I own. But that said it's not more comfortable than any headset I've really own. So I think that's not there yet. But going back to that black mirror thing. This is the real black mirror right here. This is literally like we're all transfixed on this instead of being present in a moment. We're all just looking at our phones. So I feel like you know, fast forward, I don't know how many years it'll be well, let's just say 10. Because I do think within 10 years, we would have a much better form factor device probably that's mobile probably isn't in five to 10 years. And I don't know that everyone's just going to be buried in like random content all the time. I think they're going to feel liberated that they can access things anywhere. So if you're walking somewhere, and if you need directions, or if you're driving, here's a heads up display, it doesn't require you to take your eye off of the road or where you're walking, you're not going to get hit by oncoming traffic as easily. I mean, I've seen a lot of like, I see these things, these technologies, potentially allowing us to engage more in the world around us. Now, some people will still use them for escape, right? I mean, that's, that will still happen. And it could be the same people using them for both purposes, but in different environments, right. And that's another thing that also, I think doesn't get talked about enough. For people who maybe don't know a lot of people in the real world, you can now talk with people online in a more engaging and direct way. And I'm sure you've played around with the persona thing, a little bit I have, and I've done whole meetings. So instead on and people are like, in the gym with people who know what I look like and know me and they're like, you know, this isn't really that weird. They're like, it was weird for like, five minutes. But then they're like, yeah, it's kind of capturing your mannerisms. It's catching your eye movement, your smile, and so on. And I don't know. So I see a lot of potential for these devices to connect us and reintegrate us with our environments, maybe even more so than some of the downsides that people seem fixated on. Right?



Jake 36:14

Yeah, no, I agree with all that. And I think I want to like sort of open up with slightly different track, like going off of what you were saying earlier about the pass through. Whereas you made an interesting point, I, if I understood correctly, I think that like, it's almost like posing as AR, but really, it's like VR, like everything is manufactured, in terms of what you're seeing, but it just happens to be sort of manufacturing what's in front of you. And so it like appears to be AR. And I thought that was a very interesting point, because it's not, you put on the goggles, and if you have nothing up no monitors or screens, or whatever you want to call them. It's not as good as just like, you know, not having a headset on it's, it's great. It's much better than what I you know, previously on the Oculus quest two, it was black and white. And it was like super grainy, it was like not even close. I understand the question reads better. And I feel actually, that I'm almost doing myself a disservice to have not tried that in comparison to the apple, it's, it's hard to compare it to a generation previous I understand it's not a lot better, or at least incrementally better. But anyway, moral, the story being like, it's not, it's not as good as reality, obviously, and maybe, and maybe not, obviously, maybe eventually, it can sort of get there. But what's kind of interesting to think about is like, that is something that they do have to catch up on over time, like the form factor is something that you know, needs to get better over time, in terms of like the physical device, but also the sort of resolution of reality does, I do think it kind of needs to improve further, perhaps significantly further, to sort of get on par with actual reality. And actually, I think that the limit of how good it can get is not even just parody with reality, it could go further, to where it's actually better than reality, whether it's, you know, I had a, I feel, I have to kind of mentioned, I had a co worker who sort of originally put me on to this idea a little bit where he was like, when the apple headset was being, you know, rumored he kind of thought it was going to be like, just kind of like a headset that made the world look like Instagram, almost, where like, everything is just kind of like enhanced, and that would be like even just that alone, like no other features, like kind of interesting. And so that, you know, the upside is actually not just parody with reality, but maybe even enhanced reality in various ways. And then that's just talking about like base level reality, let alone sort of, you know, enhancement in terms of, you see someone in the street, and it brings their profile above you and up above them and reminds you of their name, and you know, things like that, or whatever other helpful, you know, you look at a tree, and it can tell you all the information about the tree. And you just can actually, like, learn a lot better about the world around you, which I think a lot of people have kind of lost touch with like, you know, you can look at a building and like learn about architecture or something like this. And that's not something that really is easy to do a lot of our learning, like kind of happens in like a digital silo. And if you want to find something out about the physical world, you have to look into the digital world to figure it out. But they're not, you know, international at all. So anyway, I wonder, kind of if you've thought about that track of, you know, we talked about like sort of the form factor. Have you thought about this parity with reality track as well?

DCinvestor 39:33

For sure. And I think that the current headset, so first of all, I will say regardless of how Apple marketed it, and how some of the earlier kind of tech influencers presented the past through. It's not in like I don't know if you saw the video review by Marquez Bradley, where he's like playing ping pong in this just demonstrating how



low the latency is. I think you could actually do something similar with the quest three, I think the latency and the class three feels pretty low to me. It just feels more or b, then the the apple, the apple does a better job of getting the depth of things, right. And when it rejects it for you within the headset, it's definitely it's limited by the physics of cameras. And so you know, there is some dithering, especially in lower light conditions, you'll notice that, but I think what it's actually good at. So despite Apple showing people using this headset on the move, I think this headset is actually best used when seated to be perfectly honest. And I've played around with all kinds of different environments. And now I'm primarily using it when I'm sitting like in my easy chair or on my couch, I leave it plugged in for the most part. And I can have like a full computing experience at my fingertips in my living room, ergonomic and comfortable, where I can position windows that are like five feet away from me, I said this on Twitter the other day, where you know, when you get a little bit older, even to my age where I don't feel like I'm that old, but like, when I'm looking at text, like on a phone that's this close to my face, it's straining at this point for me, sometimes I've got to really focus and refocus. So being able to just ergonomically project that text wherever I want it the exact size I want. I think that's so powerful. And I use the headset mostly and pass the remote, okay? Because I, despite the limitations of that pass through mode, when I'm in the headset, I'm usually focused on a piece of content within that headset, right. And so I'm not really the environment is just in my peripheral vision. And so it's there. And it's sharp enough that I feel like I've haven't left my surroundings, which I think is crucially important. And if my wife was there on the couch, I can look over at her, we can have a quick chat, I'm not going to have like a long conversation with her while wearing the headset. But we can have a chat about whatever. And it's not that it at least it hasn't been that weird for us. Now, your mileage may vary with your own family. But for us, that's been how I've been using it. And so I think that for that kind of use the pass through is actually more than sufficient at this point, if you're just using it to maintain awareness. So when I take off the headset, I don't feel like I've like went to a different world. Unless I turn on the immersive mode, right, then it really does feel like you're in a different world. I feel like I've just been working on my computer, I take the headset off, and I'm back to reality. It's like I didn't leave. Yeah,

Jake 42:18

yeah, it's interesting and talking about it, you're like I mostly use it in pass through mode, it actually hadn't even like occurred to me that one would use it not mostly in passing mode, because I've tried, you know, these environments that they have, which is like sort of a fundamental tab when you kind of open it up, but you've got like your apps, and then you've got these like environments, and you can select an environment that's you know, fully immersive, and you can kind of turn the knob to, you know, immerse yourself more in it, or just have it kind of be a little bit or whatever, but it can be totally immersive. And actually, relative to everything else, I was kind of underwhelmed with these things, maybe it's because I had experienced the fully immersive thing with with the Oculus, and because those immersive environments were intentionally sort of like animated and like, you know, not real, whereas the apple ones are trying to be like, it's like you're on a lake or you're in a mountains or something like that. And it's again, like just not quite as good as reality. It's good. Like, it's, you know, arguably great, but it's just not, you know, you're not actually at the mountains. But it's, it's pretty good. And actually where it gets to be really impressive to me, which is like, there's, there's so I



didn't realize how easy it would be to go into so many different directions with this conversation. But it's, there's a lot there to sort of, like go through. And one thing is with experiences, whether it's photos or videos from your own history, and it doesn't have to be panorama or whatever, but basically anything especially panoramas, but also just videos, you blow them up big enough, or whatever it is, it's you can experience this content that you've captured from your life and like contents, like an overused word, or whatever. But everything you've captured, like you take photos, and you take videos for a reason you want to like sort of remember that thing or be able to go back and reference that thing. And at the time, when you're taking them you imagine like oh, I can go back and look at this on my phone. Or maybe I'll do it on my computer or whatever you don't really think about it's just like I take this on my phone. One day, I'll look at it my iPhone, what you didn't imagine was that there would be this device that could come out in the future that could make that moment that you've captured, whether it was photo or video, like way more reliable than you possibly could have thought when you captured the moment. And so you know, there's this you know, you can immerse yourself in a lake that Apple produced as like an environment or something. And it's like, like, I felt like a little underwhelming, but pretty cool. But if you go back through your own history, and there's something that you actually remember and you just need that spark of like being in a kind of pretty good version of it to make you feel like you're actually back there for that use case. It's actually like extremely impressive. And I could sort of put myself back at like, you know, the backyard of my childhood home and have like nostalgia and I can imagine the same is true for like videos of your or kids or whatever it might be, have you, you know, what is your experience been with like the photos and videos and everything like that

DCinvestor 45:06

the photos are definitely incredible. And I think that if you're really into like your photos, it's almost worth it to buy one of these headsets, like, if you're a photographer, you just love revisiting your photos, you find yourself on your photos app, because it's compelling. You know, when you're looking at photos on the screen, this size, I'm holding up my phone, this is not that compelling. Okay, it's like, you got to zoom in, you can barely see what you're looking at the type of person that's like, one 100, the actual size, you're trying to make that out, it is better on a on a monitor, right? A 27 to 35 inch monitor, it's better. It's maybe even better to have them on a TV where you've got to, you know, 65 inches or whatever. But to see photos in front of you of people that you know, and blowing it up to life size, or even bigger than life size, that is almost like an is an awesome experience. And like the true like, definition of that term, it is awesome. Like your jaw drops. In the first time I did that with some photos of a wedding that I went to I was like, wow, it does feel like you're back there. And if you take any of the panoramic shots, they do this interesting, like parallax effect, where when you see your panorama, which is completely around you, it's blown up to basically be like the height of your ceiling or bigger. And you can almost look into the photograph because of some of the processing that does. And then they also have introduced this concept of like spatial video, which I think is going to be really compelling once right now I think it's it does feel like a little bit of a novelty, a lot of people are commenting that they like it, I want to take more special videos, I wish they did supported spatial photos, because I don't always want to like take a video or something, which hopefully that'll add support for stuff like that soon. But I think it's just a way to get immersed in your content, I think that's really compelling. I do want to pull the



thread on your previous on what we're talking about a second ago on like this AR versus VR dilemma that we're dealing with in the space, and tie it back into this. Because I think on the one hand, you I think I think you're gonna see the space diverge into like two sets of products. And we've already seen this to some extent, but one is going to be these VR headsets, which might which all will all have AR pass through capabilities going forward. And I think that's going to become an important part of the value proposition of these products, being able to use them and pass through mode. So expect that to get better. I think simultaneously, you will also see some more limited and products emerge on the lower end. And if you're familiar with like the meta Ray Ban glasses, I think that's a great example of that, where they don't even have a display on them, which I think like makes them like pretty limiting for me and not that interesting. They do have like supposedly great sound that comes out of the arms of the glasses. And they've got their built in AI assistant, it's got two cameras on the front, it can't take scarce stereoscopic spatial photos yet, but hopefully, they can either add that in or do a future iteration. I hope Apple also releases some products on that end. And then eventually, once the technology gets good enough and cheap enough, you can imagine them putting like a transparent display or a projected display into a product like that. So now you're getting what you might consider to be more like augmented reality, simultaneously, the headset side of things, which is that more VR oriented will just get better and lighter and cheaper. And this will get more and more capable Dometic glasses, or whatever Apple produces. And eventually, maybe they meet in the middle and there's just one product. But until then I think that the passthru stuff can get a lot better. I think that with like post processing of the images, and so on, which will get easier to do, and maybe better, you might be able to see some of these camera limitations be offset by that. So I'm just excited. This is like the most innovative, there's gonna be a ton of innovation over the next 10 years in this and we're gonna see, I think it's going to progress like mobile phones did, and it's just going to take off. Yeah,

Jake 49:13

to your point on meeting in the middle. I do think for that reason, specifically like Meadows approach is really interesting, where they seem pretty I don't know if he's said it like in as direct terms, but it seems to be you know, very obvious that they're taking, like if you think about you're trying to like sort of build a financial model or something like that you go from like the top down approach, and then you have like the bottoms up, and they each kind of result in their different you know, outputs and you can kind of like use them both appropriately. In this case. It's almost like rather than like top down and bottoms up, it's like glasses like you know, you basically the Ray Ban use case that you just described and then like the goggles and you're like I feel like metal is being kind of upfront about like, we don't exactly know what this is gonna look like long term and like, we don't know what, like the ideal technology is going to be here. And like, of course, you can't really know. But we're gonna start at both ends and develop from both ends and like, yeah, you know, maybe that cost resources that if you put them all together, you know, maybe they would be able to move fast or something like that. But I'm pretty skeptical of that, I think it's probably, you know, you're not really sacrificing by having two separate teams working in two separate, complete different, like sort of pads and borrowing from each other potentially. Which actually could be even that borrowing, which seems helpful could actually be kind of adverse, if one team relies on the other, for something that maybe actually isn't the



best thing to apply. Like, if the ray-bans team relies on something from like the Oculus quest. And they're like, oh, that's an easy way for us to do this. But it's like actually coming from your end of things. Maybe there was like a better first principles approach or something like that. So anyway, I just think coming at it from both ends is super interesting. Whereas Apple, obviously, if they are coming at it from multiple angles, it's not obvious, I guess, they could be with like, I'm just kind of going out on a limb, but maybe like the combination of like, watch and air pods or something like they just don't even have a form factor. And there's like the computing is there, their version of the Ray Ban that is like not heavyweight headset is something that maybe doesn't involve anything on your eyes at all, or something like that. And I'm not really sure. God, yeah,

DCinvestor 51:31

I think that for like, meta, you know, they're targeting the Instagram influencer crew with their glasses, mostly, right? Cuz I mean, like, like you said, it's basically air pods, and then they've got like a camera on. And so I think your average Apple user actually doesn't care that much about having cameras on the front of their face, unless it's doing something that's like useful to them. They don't, they're not gonna wear cameras, just so they can take pictures while they're on the move. As a general rule, I think that's true. And they already have the air pods, which are like the most popular wearable tech probably in the world. So so I feel like for them, they've probably looked at this and said, you know, what, we're not at a point where we can do like a compelling display in glasses like this. And so they're just like, we're gonna go in the other direction. I think like, actually, people had a good critique of the headset, which I encourage people to read he posts on his Twitter. And he said, he said something like, I wanted an Apple Watch on my face. And they gave me a MacBook Pro. Which is, which is, which is pretty funny. And it sounds dramatic. And but he has a point, right? I mean, like, is there demand for like a more of a watch style interface on class? I don't know, I think that they'll probably try to develop something like I'm sure they, they're already trying to develop stuff like that. But I don't think that I would be that interested in like the metaclasses. But an Apple version, like and I don't think like a lot of Apple customers necessarily wouldn't be, I don't give I don't fault Mehta for trying something new, I actually applaud them for putting the stuff out there and making these products relatively accessible with lower price points. I think that's cool. I don't agree with a lot of their decisions as a company and their modus operandi. Putting that aside, though, they've been one of the biggest forces for VR. And we wouldn't be where we are, if Mehta wasn't investing billions and billions of dollars into these technologies. It's possible VR would be like five years behind where it is today, if they hadn't bought Oculus, and, and just pumped tons of money into it. But I think like, in the, I will say, conversely, I'm really glad that Apple took kind of a different approach. And it's like, you know, what we're gonna go for like a real computing platform. And though it's limited, it's real, it feels more like an iPad than it does like a MacBook, in terms of like what you can do with it. It's still super powerful, you know, like it is an iPad, but it's like actually more like 10 or 20, iPads or however many you want. And you can do all kinds of things productively in the headset, I think that's what makes this headset like different for me from the other ones. Like I never really felt like I wanted to wear my any of my quest headsets for more than the duration of the game that I was playing. And after a while, I just got tired of going in and leaving my reality to go do something because you feel cut off from everything when you're in there. And I get that that's a pro for some people. But for me, it felt like a con it felt like I was had to travel



somewhere to go and do to use the headset. And I've been using the vision Pro for two weeks now and I've used it more than probably all of my quest headsets combined. Which I'm not like proud to say that I bought those quests I didn't use them a ton. It made me Quest One and two, I use more. I'll tell you quest three, I probably put like 10 or 15 hours into it. And I just it hasn't. It didn't grab me necessarily. Whereas I can do like my computing tasks and division probably hook up a keyboard and you can go man you can do you can do a lot of light productivity tasks. In that headset and you go in, and now I've gotten used to it, I can wear it for like a couple of hours at a time. And it's not really that uncomfortable.

Jake 55:07

Do you find that there are questions that you can ask yourself or like things that you can think about? Now, when deciding? Are you going to use the headset? Or are you gonna just like sort of use your, your monitor or your phone? Like, I think already, people aren't? Even, you know, before this just with phone and computer, my thought is that people are you know, I've kind of thought that basically people aren't intentional enough about what is the right tool for the thing that I'm about to do? And in this case, now, you have another tool, and it's like, very different. Have you thought about what questions you can sort of ask for specific tasks that you feel are sort of best suited for the headset? Other than what you mentioned earlier? Which is, you know, the question of where do I want to work? If I don't want to work at my desk? If I want to work on the couch, then this lets me do that. Are there other questions that you can sort of ask yourself?

DCinvestor 55:59

Yeah, and the location one, you could almost make a decision tree for this. To be honest, it might be something interesting to do. But but the location aspect, I think, is actually it is a really important one and might even be prime primary for me. Because I've got my office, it's like upstairs in my house. And I don't always like to be up in my office, as someone who works from home, I like to be in the living room or in different spaces. And so. So if we take that off the table, though, I think the first question is, what you're doing require doesn't require like really precise input does require you to be pixel perfect. Like whether that's drawing something or if you're like, creating like complex slides where you need to position everything in just the right place. The Vision Pro is not good for that right now. It can be if you have the keyboard and the trackpad with it, in which case, you could probably make it work. And, and by the way, one of the cool things in the headset is, if you have a MacBook, you can just open it up, connect the headset to it mirror, your max display, but not only that, you can use the keyboard and trackpad in any app on the headset. And so that I think is like actually that opens up a universe of things that you can do in the headset that you might not do otherwise. But in general, I think if you need to do really color accurate work, if you need to do that pixel perfect stuff. I don't think the headset is really there yet. So that's the first thing. Second is if you need to use some kind of really specific application, it's probably not on the vision pro yet. And if it is there, you're getting like the iPad version, which is usually compromised, it might not work great with the touch OS input right now. And I think like in general, my feeling with the headset is a lot of it is taking like these two D experiences from like our iPads and so on, and projecting them in 3d. I don't think we have like cracked 3d user interfaces yet. I think the Apple did a tremendous job in getting like the base operating system stuff down in that 3d, like



being able to move the windows around feels basically flawless the eye and hand tracking works really well, although not perfect. And I'd like to see it improved. But But we haven't we I think it's going to take time. But we will see app developers develop these compelling 3d experiences, which really allow us to interact in 3d. And I think like, if you've played VR games, I've been playing them as we said, like since 2016 2017. The initial game started off with like, really, it's basically 2d windows in your space. And it's like jarring, it's almost immersion breaking. And then over time people like, oh, well, instead of reloading the gun by like pushing a button, how about you reach down and grab a clip and like reloaded it? And, you know, it almost took time for people to come up with these kinds of different 3d user interaction. So I think we're going to be skeuomorphic for a while until we have some of those breakthroughs. But I think that just going back to your question, I think that's like, if you don't need that pixel perfection, that I think you can consider the vision Pro, like if it just requires like reading text, inputting text if you have a keyboard. I prefer to do a lot of that now in the vision pro because of the things I mentioned earlier, because I can position it wherever I want. And I don't know if we mentioned this earlier, but text looks really good in this headset, like much better than any other headset that I've looked at, like I can read like, you know if you can deal with wearing this thing on your face, you can read cold documents and there and it's more comfortable than looking at a 20 inch monitor whatever.

Jake 59:31

Yeah, I mentioned I think I'm forecaster like the other day I just tried basically lying down flat on the floor I have this like stretch that I tried to do with like something under my neck and then like put my arms out and so like I'm just lying down basically flat on the floor with the things trapped in my head and looking like you know at the ceiling and reading you know, a web like an article on the ceiling and just flicking you know, my pinching my fingers on the side and like sort of flicking it as I go and like that's just not something, it seems trivial, but you just can't do that in any other way. Like, they could create a much simpler device that could allow for just that to be done, I'm sure. But you know, you probably have to like download a book from Kindle or whatever like this, you can do it with the whole internet, you could do it with your email, you could do whatever you want. And then the other thing, I think that's kind of important to mention, too, what to your point on sort of like the keyboard really, and the mouse making or you know, trackpad making like a lot of things easier that you wouldn't otherwise do with the headset, because the, you know, you don't want to use the virtual keyboard for much more than, you know, a few words here and there. But you can use the virtual keyboard to, you know, like prompt like listening, basically, where you speak the text that you want to use. And I found that to be super helpful as well, if I don't want to sort of get the keyboard involved, or if I just need to type, you know, something here and there. But it's not like a typing intensive activity. So it'd be interesting to see also, like, I'm generally very bullish on audio, I think audio is like, tremendously underrated still, you know, air pods, like, were a nice advance, and they're very cool. But I think people haven't yet appreciated, like, similar to what you said about 3d Actually, like building apps that are intended for 3d rather than like skeuomorphic. I think audio has kind of just been like strapped on to the internet, but not at people actually, I haven't made like, audio native digital experiences, in a sense. And so that as like, sort of more of a background thing coming online, at the same time, as this VR, AR, I think will be quite interesting. And one



example of that is like you can do your point, like there's a bunch of apps that aren't, you know, you know, like native for the headset, but they are downloadable. It's like sort of the iPad version. And one of those was like chat, GBT, which obviously you can use as you do, like, chat up with the text. But you can also use the voice conversations sort of feature that they have, and just have like that window, you know, in the corner of your living room while you're sitting and doing your stuff. And if you just have anything, you want to ask this expert in everything at any time you like, click the button, and just say your question or whatever you want. And you know, this very smart version of Siri will give you an answer like in audio format. And, you know, record it in text if you need to reference it later. And like, not alone is something that like, I guess, I could do that on my Mac. But I haven't even like thought to. I don't know, like why but there's like different things that you might be able to do with the headset that you either can't or just wouldn't have thought to do on like a single screen.

DCinvestor 1:02:41

Yeah, and I think the audio input will become more full featured over time. And it can go even further. Like you can imagine apps creating like a 3d avatar that's like sitting in the space with you, right? I mean, and that I think is where you start to get into some of the potential of what augmented reality can do. And when you say you're having a conversation with Chad TPT, and I've used the conversation feature a bunch on chat TPT, and it feels pretty natural, especially if you give it some custom instructions to cut out some of the fluff it can, you can really have almost a dialogue. And it's kind of it's a glimpse into that future, that layer that end with an avatar that's sitting in your 3d space and mixed reality pass through. And all of a sudden, now you've got like another level of compelling experience, I do think you're always going to have a place for different input tools. So I think over time actually like, so I think the keyboard will become remain a necessity for certain kinds of work, because keyboards represent kind of what they call like a level of superhuman input, like you can type that most people can type faster, or people who are good can type faster than they can speak and can do more with the keyboard. So I think that's one part of it. I do think Apple will also introduce, at some point, some kind of peripheral, and it probably won't look like the quest controller is my guess they're going to come up with something else. But like, it's like the iPad, the iPad was out for a few years before they introduced the pencil. And that unlocked a new set of uses. So I hope Apple actually goes down a peripheral route sooner rather than later. Because I think that just using your hand, they did a great job with the hand tracking. But just using your hands and being constricted to that is a bit limiting. And I don't I don't think the trackpad is like the answer in 3d. I just don't think that's the ideal input.

Jake 1:04:27

Yeah, it's interesting what you say about the keyboard. There's this, there's this sort of like special instructions or something. I didn't make it. I like got it from someone, I forget what it was called. But basically, it's a version of like cat GPT that you can type like extremely sloppily and it will understand, you know what you intended to type like, you can just like make maximum typos basically, and it somehow kind of figures it out. And I was thinking like if you take that and combine it with like, I think I don't use this but I think it's our I think it's the thing on the phone or Ready, which is like, you can kind of drag your finger around the keyboard instead of like pressing the buttons, and it'll kind of like connect to



DCinvestor 1:05:06

the swipe. Yeah, you can do that with the default keyboard. Now, I think they built it in.

Jake 1:05:09

Yeah, so I don't, I don't really use that, but I'm sure some people do and probably enjoy it, or, you know, they probably launched it for a reason, because they've foresee it as having like, a lot of potential. And so you can imagine, like, something like that maybe as the spate, like, it definitely doesn't work the virtual keyboard and with the headset of like, you know, pressing the buttons, like, it's fine, you can put in your passcode, you can type a word here and there, but it's never, it would never be something at this as hard to foresee that it could be something where you would want to use that instead of a keyboard, it's just like, not even close. But if there's a version of it, that's like sort of designed for the headset, where you're maybe like swiping around, and similarly to how impressive it is that it captures, like what you're looking at, maybe it uses a combination of like, what you're looking at, or you know, what you're dragging with your fingers, or what you're thinking or like what you know, it starts to become like almost like a neural link sort of thing, without necessarily having like, you know, an implant, but it's like, it has enough of what you're trying to do, it has enough information that it can maybe be an even better version of that chat. GPT. That's like, piecing together what you mean, even with a ton of typos. And I could imagine something like that, that would actually, you know, go beyond like the cape, the super, you know, capabilities of like a keyboard potentially.

DCinvestor 1:06:24

Yeah, I think that non implanted neural interfaces will develop a ton over the next five years, even if it's just doing this clicking motion with your thoughts, which, which actually, like, probably isn't that hard. Like, given current technology, I think also just the idea of a keyboard is skeuomorphic. So like a 2d environment, right? We're used to using these keyboards and keyboards are not intuitive, like, take a keyboard to your grandparent or something like that, who might not have experienced using them. And they're just hunting and pecking. They're not like us who are like, can type fast, it requires training. And so I think in the future, we will have a new form of input. I don't know what it looks like, I couldn't tell you, but I don't think it's like QWERTY keyboard to D just in 3d. And we'll have a new way of entering text without our voices that we need. Maybe it's like flicking your fingers in certain ways. I'm just making stuff up now. Because I can't even conceive of what it is. Or maybe it is just jumping to predicting your thoughts. And using that as a way for for text input. I mean, the future just seems so insane right now that it's hard to it's hard to even conceive what what the world could look like in 10 years. Yeah,

Jake 1:07:32

no, definitely. And it's, I have a couple of things. I guess that I know, we're up on time here. But I want to close on on a sort of end before we get through because I think they're really interesting. One is what was it? Oh, you know, you mentioned earlier like Chachi, BT actually being like a person in the room. And this was one thing that I was actually surprised, maybe there's an app for it, if there is I haven't found it. But there's really



nothing that I can do in you know, the Apple vision pro today, that like allows me to go in and be like, in a room with another person, whether that person is real or like an animated, you know, character or whatever. And I was kind of surprised by that. Because you can do that even in like the quest like you go on Horizon. And there's like a bunch of people running around. And I remember that was another like, you talked about these, like sort of wow moments. That was something for me when I joined. Like a horizon room. I remember I had this feeling of like when you walk into a room and you don't know anyone. And I was like, wow, like, I'm, I'm here alone in my room, like things wrapped in my head. And I have that feeling that like I just walked into a place and I don't know anyone. And like, that's super cool. So I'm surprised that there's nothing really like that on the Apple vision pro yet? And like, I'm sure it's probably coming sooner than later whether it's from Apple directly or like third party developers. But are you also kind of surprised by that? Or is there something imminent that you would foresee like one the easiest thing to do from my perspective is just like, you and I, right now, you know, you're at your computer, looking at my avatar on your screen, and I'm looking at you through your camera on on your on my screen. If I could just strap on the vision Pro. And it's actually feels like we're in the room together just sitting at a table across from each other. Like that should be very straightforward. And they could use the persona. But they could also use an avatar, which to me is actually better and more sort of like digitally native because why do you need to go and try to make like a reproduction of my actual face, which doesn't look as good as my actual face when you can have like a perfectly clear looking digital avatar that looks great as like as a pleasure to be in the room with and isn't like freaky at all. So that's something that like, I don't think there's any. It doesn't seem like there's any technological barriers to doing that. And I'm kind of surprised that they haven't. Yeah,

DCinvestor 1:09:52

well, I think the persona feature starts to get at that but like you said, it's not fully there. But I think what they really want Want to do? Frank? I'm just projecting here. But I feel like what they want to do is differentiate from the metal product a little bit. So personas actually look pretty realistic. I mean, they look, there's definitely an uncanny valley there, there's no question but but they look much more realistic. And they I think they are trying to avoid like the emoji or the cartoon avatar, because they just didn't want to lead with that direction. I agree that over time, they're gonna allow you to use probably whatever you want, to some extent, but they didn't want to lead with that. And they presented this persona feature is like beta within this product. So I think that there's a lot more to come there. And there's a lot of opportunity, but they probably didn't want to put something out that they didn't felt like feel like met kind of their standards for being immersive. I do think they did a good job with the personas. And like, there's a lot of subtle nuances to this personas, like if you're in a FaceTime, and you're looking at someone, if you have two people on a FaceTime, and you're looking at one of them, your eyes will be looking at them on their phone or in their headset, and the other person that's in the conversation will know that you're not looking at them, like subtle things like that, I think are actually really technically impressive, I think to just an idea of these other entity like these AI driven entities in your space. I think Apple, I don't want to get too deep into this. But most people are speculating that Apple is working on a fundamental re architecture of Siri. And it's going to be revealed at WWDC this summer. And I think that that's going to be Apple has been known to be buying up all these AI startups and



has acquired a lot of AI talent as a result that has been going on for years. So I think there's going to be a huge reveal around AI. And I think it's going to extend the capability of the headset tremendously. Probably this is just a gut feeling. So I don't have any insider information or anything like that. But that's what a lot of the speculation is in the space right now. And I think that's going to be super interesting to watch.

Jake 1:11:58

Yeah, definitely. I mean, it's it's surprising how bad series still and how, you know, stagnated? Basically, it's been for so long, so it certainly wouldn't be surprising. And you could imagine that would just bring things forward a lot, not only, you know, with the with the headset, but you know, the watch and air pods and the whole ecosystem, basically. So last question. You know, we didn't talk about it much today, but most people who know you from Twitter or forecast or whatever else it might be No, you know, you're all in on a theory I'm and big into collecting digital art and NF T's and everything like this. You've spoken about how you think that virtual reality augmented reality can really be a significant sort of milestone and step forward. For a digital art and digital assets. More broadly, can you sort of speak to that a little bit more now with the context of having the apple vision Pro? Is there anything you've been able to do in there so far, or things that you could sort of foresee doing now that you've got this like, you know, latest Gen, sort of experience?

DCinvestor 1:12:59

Absolutely, I think that so for the first, I think like, if we go back to the conversation, we're having about photos a second ago, right, and we talked about the limitations of looking at photos on a six inch screen, and then on a 13 inch laptop screen, and even on a 35 inch monitor, it doesn't really feel like a It's not an elevating experience, it feels limited. No matter how big you try to make it on one of those screens, you don't really feel like you can immerse yourself in the content. I think similarly for digital art. Most people have consumed it on the small screens, they're used to that that's what they think is like this, oh, yeah, I'm looking at this piece of digital art, and it's on my monitor. And that's great. What AR will allow us to do is you can see the you can then layer those art objects into your space, you can view them at especially like in the case of generative art, which is my personal favorite kind of art art form on the blockchain, most of those pieces can be actually rendered at any resolution, which is part of the value proposition of generative art for me. So no matter how high resolution our screens get, you can blow up a piece of generative art to like infinite size, practically. And I think that that is just going to change how we think about digital art completely. And I mean, we talked about how people have already in the time since I've grown up, lived more and more of their lives in a digital space, right? AR I think is going to allow us to do that even more and later that digital space and to our analog or, you know, real life spaces. And so I think there's just huge potential for for NF T's to take off as a medium that people become a lot more interested in as we make that transition more fully. I think the other barrier 10 FTEs, kind of tangential to all this is a lot of people don't understand the concept of non fungible digital ownership just like me and 2013 Maybe not fully understanding or 2012 Certainly not really understanding how Bitcoin could be digitally. scarce, right, I just didn't get it, it takes some education, it takes a process, you've got to have an open mind. But I think more and more people are going to come around to this idea of oh, you can have objects that are digitally scarce. And oh, I can interact with these digital objects in ways that I



can't even interact with my physical objects. And I think that that unlocks a whole new universe, of use both for speculative purposes for collecting purposes, for our purposes, and so on. So I'm excited. I think it's just, we're going to be living these digital lives. I'm hoping that it's not the dystopic vision, but it's more of a, we just integrate digital insight into everything that we do, which I think is the promise of augmented reality. And I think we're gonna get there, you know, there always gonna be people who choose to use that technology to isolate. But I think for 90% of people, or more than that, that's not how it's gonna play out. Fingers crossed.

Jake 1:15:50

Yeah, no, I'm with you. I'm optimistic. And I'm excited both on, you know, the AR VR front, but also the crypto front, which we haven't talked about as much today. But definitely, I think both of us probably spend a lot more time thinking about that. But this has been fun to take some time thinking about today and talking about today and really appreciate you taking the time. It's been an awesome conversation. And it's gonna be fun to see, you know, in a few years, where all this stuff is and you know, maybe between now and then or sometime around, then we can get on and have a veto of this and do the sequel, maybe in VR that time.

DCinvestor 1:16:22

I would love to do that. And I'm hoping that the technology gets there for us, and thanks for having me on. Jake. I enjoy the conversation. Awesome.

Jake 1:16:28

Thanks, DC really appreciate it.