# TRAILBLAZERS TALK

Ravi Kumar S,
President, Infosys,
with
Philip Rosedale,
Founder, Linden
Lab



#### Ravi Kumar 00:13

Hello everyone, my name is Ravi Kumar, President at Infosys. Welcome to this new chapter of Trailblazers Talk in 2022. This is a great time to connect, a very exciting time for Infosys as we announce the launch of Infosys metaverse foundry to help enterprises navigate the metaverse by partnering within them on a discover-create-scale cycle. We will harness the power of a confluence of technologies, 100+ ready-to-apply use cases and templates, 3D environments, an ecosystem of partners, platforms and much more to make it all happen. Infosys, as all of you know, is deeply invested into training, I would say lifelong training infrastructure. We have the largest corporate training university in the world. So, we are also making a foray into something called the metaverse in education and learning and we're hoping to stay ahead of the curve there.

What a great time to have the special guest today - Philip Rosedale, the founder of Linden labs, the parent company of Second Life, the original metaverse company founded almost 20 years ago, as an open-ended internet connected virtual world. Following Second Life, Philip worked on several projects related to distributed work and computing. Intrigued by the innovations in VR enabling devices, he reentered the virtual world, co-founding High Fidelity a company devoted to the future of next-generation virtual reality using spatial audio. He rejoined Second Life in 2022, as a strategic advisor, focused on helping and shaping a better metaverse. Phillip, thank you so much for joining us today.

You've been thinking about the metaverse for almost 20 years. Since you established Second Life, I know a variety of things happened - Roblox, which gave us a virtual gaming universe, Bitcoin, tokenized currency and an evolving virtual world. Facebook acquired Oculus, to get into the metaverse. Decentraland is a 3D virtual world browser-based platform. And then we saw the launch of Fortnite. We had two broad announcements from Facebook and Microsoft. And we are now stepping into the metaverse with so much curiosity. What do you think has captured the imagination of tech innovators, businesses and consumers, now than ever before? Is this the confluence of technologies? Is it the pandemic which created a need for a virtual world for all of us to interact in? Do we need to be cautious? I'm trying to understand what's going on.

#### Philip Rosedale 03:54

Changes that have happening from the time Second Life became widely used. I'd add Minecraft, looking at how kids have been exploring virtual worlds together. But I think as you said, COVID has probably been one of the biggest instigators along with Facebook's most recent claim of the overall marketspace. COVID has created this situation where we all have had to wonder whether we're going to have to use online technology to replace some of our social and entertainment experiences. And so, I think at a very high level, the industry and the big tech companies are all trying to figure out, how to participate in something like that in providing online access to social and entertainment experiences.

#### Ravi Kumar 04:51

And, and Philip, which industries, sectors or type of companies you think will gain the most from the metaverse? And do you see a specific opportunity for b2b brands? And how might that evolve? Where do you think the opportunity is for industries?

## Philip Rosedale 05:36

Well, we saw a little bit of this with Second Life in the 2000s. There, I think we saw smart industries that look at specific vertical applications that take advantage of both virtual worlds and VR, things like simulation of business training, you know, taking apart the engine of an airplane and being able to walk through it with a bunch of other people in VR. These are examples that are going to work today, I think that some of the problems that we have about broadly using virtual world and

VR technology, are around governance. And I think that we will see use of both VR and desktop technology, by enterprises today, in a way that we did see a little bit of an example in the 2000s. And I do think the time is right to go beyond Zoom if you will.

#### Ravi Kumar 06:30

We are toying with this idea of metaverse for education and learning. Do you see the metaverse playing a significant role in intertwining education and work? We are very excited about that opportunity.

# Philip Rosedale 07:07

It does feel like the combination of remote access obviously, as a fundamental thing that we now are all embracing as an industry, broadly, the combination of that. And the ability of virtual worlds to put people face to face in a much more memorable and comfortable way is something that will drive changes. And I agree with you, I actually think if you look at something like Ready Player - a work of fiction - the thing that was left out when they made the movie, in my opinion, was this implication for education. The very idea was that kids were now going to school from home using virtual reality. They left that out of the movie, which I found so frustrating because I agree with you. I think that if we make it much, much easier to do continuing education, for example, or training, we're going to disintermediate universities in some regard, you know. I've talked to schools about this and see a really different kind of delivery pipeline for education. And I think as you say that the key virtual world experience, key technologies that enable that kind of experience are exactly what's going to make it possible and a distinctly better experience than what we're doing today, mostly with online video conferencing.

#### Ravi Kumar 08:22

And it's going to be much more immersive if you could intertwine it with work. The current Internet in its centralized form, has very imbalanced creative economics. People are upset about data controls and monetizing attention. In some ways the future will be built on web 3.0 technologies decentralized ledger. This holds the promise of creating a more equitable balance between participants and creators with this potentially leading to a participant-led economy bridging the divide. How do you think this economy will shape up? I know you did a little bit of that in Second Life as well, your economics is not related to advertising and promotional activities, it's more subscription-based.

#### Philip Rosedale 09:37

I observe that the internet is still very decentralized for a lot of experiences, for a lot of companies. When you help a company put a new service or a product online, fundamentally, you know, you're generally enabling them to operate in what is still a very decentralized way. But you are right, a couple of companies, you know, probably most notably, Facebook and Google, have built business models around being an intermediary that captures a large share of creator content as it's delivered to the world through social media. And I do agree with the enthusiasm around fixing some of that intermediation. But I would note that, it doesn't apply to the whole internet. Second Life was a very interesting experiment in an early cryptocurrency that was sort of partly decentralized and partly centralized. And so, it's a fascinating kind of case study for the future right now. And it enabled people to engage in trade in a very fair and open and kind of micro transaction sort of way. And as you last said, and I'll repeat it, Second Life is a demonstration that you can have a great business that doesn't manipulate behavior or get in the middle of content creators. And I think those two are sort of the same problem. Second Life is a business based entirely on fees, transaction fees, and land fees, and therefore, you know, doesn't get in the way of the creators and, the company still generates more money per user per year than Facebook and Google.

#### Ravi Kumar 11:25

In some ways, the economics model is very different as well, I was wondering whether the economics pushed you to not grow, or it's the other way around - Facebook has two plus billion people. And I heard you quoting in one of your interviews, saying that this decision to live in the digital world is a serious one. And people have to think through how much serious time they would really spend on this virtual reality. I'm kind of curious to know, is there a learning from your Second Life experience?

## Philip Rosedale 12:14

You are right. When I started Second Life, like a lot of entrepreneurs here in Silicon Valley in the late 90s, early 2000s, it sort of seemed like everything we could offer people online was a good thing. Looking back now, more than 20 years later, I think we made some mistakes. There were certainly reasons to not spend too much time on your phone or on social media or on the internet overall. And so I think that, it's a very fair point. And going back to what you said about stabilizing a million people, I'm pretty sure that Second Life didn't stabilize because people are not yet ready, mostly, to engage particularly in social and entertainment experiences online, we still have fundamental research we need to do. And Second Life is proof of this with its smaller base of residents, that we still have work to do to make the social and entertainment experience compelling for people. And as I've said before, I'm not even sure that's a bad thing. I think, as you started to say, we should be very cautious about how we spend our time and why we're online and what we're doing when we're there.

## Ravi Kumar 13:30

In fact, there's interesting research - stats last year said that, at an average 46% of the people use five to six hours on the phone and I'm one of them. We've got the point because there was more co-creation and co-innovation by communities around the phone ecosystem, the iPhone ecosystem. Do you see a similar evolution happening in virtual spaces? Tell us a little bit about how that can be evangelized?

#### Philip Rosedale 14:24

Well, first of all, I would say that the as you say, Second Life started right at the beginning of the smartphone revolution, we missed the smartphone like Facebook and all the other companies that started right there in the early 2000s, when the iPhone came out in 2007. So, I think that we all learned a lot from that moment on the smartphone and of course, the smartphone is a dominant way that people worldwide access the internet, but the smartphone is a difficult way to be really immersed, particularly in an entertainment or social experience. It's much more approachable for things like industrial applications, training, you know, things where you're very purposeful. But the the smartphone is a difficult way to be immersed. And so I think that's going to set back progress a little bit as we go toward these metaverse-style three dimensional environments. But I think the important thing here to think about is not so much the technology or the devices through which we access the internet, but more what we're doing when we're there. And I think the thing that we're at risk as a species right now is reducing trust and intimate communication between people. I think that one of the problems, largely unintentional, of the internet, is that product designers have succeeded in separating people from each other where we thought we would have brought everybody together. So, I think that it's important to build these metaverse worlds as we become three dimensional as we start to have these live experiences with a focus on giving people the same quality and trust building and collaborative opportunity as they have when face to face with each other, as we have in real life as much as we possibly can.

I'm hopeful that web 3.0 technologies, which will be the underpinnings of the metaverse will create that trust on the internet. And hopefully we transition from an economy which is very attention seeking to an economy which is value driven. On one side we have digital fatigue and digital minimalism as people call it from this immersive hyper-connected virtual world. Why then do we need to be on the metaverse? Is this an opportunity to create like an alternate world, where you find it more satisfying, more level playing, more inclusion, and a reset of the digital divide we have created?

# Philip Rosedale 17:13

And now I'd say a couple things about that. One is, remote work. And I'm sure that your company is on the frontlines of this with your customers. I fear as we go back from a fully remote situation, which is dominating during COVID, to a hybrid environment where we have multiple people in a meeting room, and then multiple people that are trying to join that meeting from remote, I think that is both a tremendous problem and an opportunity for innovation. I don't think we have nearly any of the solutions yet for that. And then, you know, I think as regards digital fatigue, you know, we spent a ton of time so far at High Fidelity looking at things like spatial audio, and also kind of what's wrong with video conferencing, you know, and a lot of that fatigue are these problems that result from having a lot of faces looking at you or seemingly looking at you. And it doesn't happen as much in a one on one conversation like we're having, but it does happen in a group conversation, maybe it goes up even nonlinearly as you increase the number of people in the room. So I think that there's a positive opportunity to give people a more relaxing, less fatiguing experience, say as avatars in virtual spaces and address some of the research and the problem that you're talking about.

#### Ravi Kumar 18:49

I think working all remote is relatively easy. Working physical of course, we're used to. Hybrid is harder, because you just need to create an equality of experience between the physical and virtual worlds. What are the biggest challenges for experimenting with the metaverse for companies that are intrigued by it, but don't know where to start with? The use cases are not very mature. What should companies be thinking about if they want to start this journey?

## Philip Rosedale 19:32

I talk about this a lot as it relates to broad uses of the metaverse. But you know, people like to try things like VR headsets, for example. And even virtual worlds with avatars, they'll try it one time, and they'll never come back again. But they'll actually report the experience as being a positive one, which is actually a fascinating finding in product development. But what I would say for you, for your customers is to think about starting small with a very specific use case, getting it working, and then being very particular about post testing, that people prefer it to, say a video conferencing equivalent or to whatever they were doing before, and really being thorough about that user study. Because it's easy to be mistaken and believe that you have something working, that is fatiguing or, or has too high a transaction cost, you know, putting the headset on or whatever, and ultimately doesn't get used. We've seen a lot of that on the consumer side. And I think you're going to see the same thing on the enterprise side as people try to build solutions.

#### Ravi Kumar 20:37

We know that the real metaverse is years away. When do you see the metaverse evolving to a general purpose, population grade technology or a general purpose population grade platform scale? What do you see are the technology advances which are critical for the evolution of the metaverse in the future?

# Philip Rosedale 21:39

We've got the hardware that we're going to use. So there's the virtual world and metaverse technology deployed to the desktop. And then there's the second stage technology deployed on either AR VR goggles. Let me talk about the AR and VR goggles. I think they're ways out farther than people think. Except for industrial applications, like simulation and training, which we touched on earlier for entertainment and casual use business meetings, live events and things like that. I think the VR headsets and AR devices are more than five years out at this point. The reason for that is that there's just critical work such as weight, just comfort, the feeling of being blindfolded in the real world that are very difficult physical problems to address in the hardware. So, I think we're far out there. If you bring it in closer, though, to say, the desktop devices, desktop and smartphone will dominate us over the next five years. The challenges there, as you say, to get from the hype stage to really, really heavy usage are related to I think two areas. One is the nature of the avatar, we have to build a virtual person that is comfortable enough for a regular say business person to come to a meeting wearing they have to be comfortable being an avatar. I think we're close on that but we're not guite there but there's a lot of good evidence in the marketplace. You know techniques like epics, meta humans, and you know, there's bunches of bits of examples coming out that show us the way there. But I think over the next five years, the first area is the quality of the Avatar that's going to have to get a good deal better to get the average person to come to a meeting. The second thing is getting a lot of people in one place. This is partly what we've worked on with High Fidelity and audio. Many human experiences as we know our experiences where there's say more than 100 people in attendance, you know, whether you're talking about a freshman college class, or a music event, or almost any kind of entertainment experience, you've typically got a lot of people standing around, and the technology needs to get there to enable lots of people in one place. The examples we've seen over the last couple of years have been toy examples that typically have a dozen people in one place. Second Life got about 100 people in one place, but barely. High Fidelity has done some tests with 500 people in one place wearing VR headsets. But in any case, we've got to get to the kind of audience size that you would say, have visiting a website. And we're not quite there yet. And so, I think the next five years are going to be critical to see Avatar improvements at scale.

#### Ravi Kumar 24:20

Phillip, do you see interoperability between different metaverse is in the future?

## Philip Rosedale 24:32

There's going to have to be some interest. But I think the ways we're talking about it today don't really make a lot of sense. Today, people are talking about, say, wearing the same tennis shoes between two or three different video games. But I don't think that's very likely to happen because game are by design their own universes, they have a holistic quality to them, which is implicit in the design of them and then in their appeal. So, I think the conversation about how we drive a car from Fortnite into Among Us or something like that is kind of a silly conversation. But the business conversation, on the other hand, about how you might come to a business meeting, wearing a suit that you bought, is a very important one. And I think it's there that we will see some interoperability standards continue to develop. I mean, there are early fledgling efforts around that right now. But I do think, once we have business use cases that are real, we're definitely going to have content interoperability that will fall out of that. And I think the network effects will drive it to happen as producers want to have their content accessible on more platforms.

#### Ravi Kumar 25:35

So well said, the metaverse will have a network effect. You know, I actually wish that the next time you and I talk to our audiences, we will do this conversation in the metaverse.

# Philip Rosedale 25:55

Thank you very much for having me. It was great.