Speaker 1: So here we are with Kyndra Price and Chris Patnoe from Google. Hello, guys.

Kyndra Price: Hi.

Chris Patnoe: Hi.

Speaker 1: Lovely to have you back on the show, and it is great to be talking about accessibility with Google. Got to say you've got a lovely place here.

Chris Patnoe: Mm-hmm (affirmative)

Kyndra Price: Thank you.

Speaker 1: This is very nice. When can we move in, is the first question?

Kyndra Price: I would like to move in first. I love this building.

Chris Patnoe: I want to hire the person who did all the sticky note art that we have in the windows.

Speaker 1: Right, okay.

Chris Patnoe: We have this classic 8-bit art from classic video games.

Speaker 4: Nice.

Chris Patnoe: Done in multicolored Post-it notes.

Speaker 4: From the heyday of gaming, nice.

Chris Patnoe: But even, there's the Florey from Undertale, So even modern games are up there, too.

Kyndra Price: I like the floating staircases, it's like Harry Potter almost.

Chris Patnoe: But safer.

Kyndra Price: But much safer.

Speaker 1: It is an incredible building. I have to say, for two blind men, I see this. Two guys sitting here who can barely see anything five feet in front of us. In your case, it's zero feet.

Chris Patnoe: Zero feet.

Speaker 1: And you know,

Chris Patnoe: I've had the next door building described to me, which is Google's next big project where the Android robots have been painted on every single floor, even though there's no actual building.

Robin: It tells you where the floors are.

Chris Patnoe: Yeah, yeah,

Speaker 1: I see. Right. Okay. Well listen, we've probably should talk about tech at some point, but it is a great place to be in and thank you so much for hosting us here. You've been so kind.

Chris Patnoe: Yeah. Thank you for Kendra who did all of the heavy lifting and bringing us here, so thank you Kendra.

Kyndra Price: You're welcome.

Speaker 1: You were amazing.

Chris Patnoe: Muscle bound. Yes,

Kyndra Price: Glad you guys are here.

Speaker 1: Well, it is lovely to be here and talking about accessibility as well because it's such an important thing and I know for many, many years, accessibility has been the heart of, of what you've done at suddenly in the last two, three years it seems to have ramped up a bit. You'd agree with that, Chris?

Chris Patnoe: Absolutely. We're, there's a change in Google, but also I'm sensing a change outside in the general world, the general culture where there's, it seems to be the zeitgeist shift where more people are aware, more people are open to the conversation, more people know what it is, and are not only acknowledging that it's important, but it's important not to prioritize. And I've certainly seen that change as I Google, but it's not just Google. I think we're seeing it in many other places, which sort of helps reinforce the conversation inside Google.

Speaker 1: But it really is important for you guys to do this because you are a huge company that represents a lot of different things and disability has, and we've been seeing this a lot through our visit here. Disabilities not at the top of people's priorities in a lot of companies. And unfortunately that's just the reality that's born out through the employment numbers of people who are disabled, who are out of work and all of that. So having a company like Google really spend the time and the effort focusing on accessibility, making products accessible, all of your products. Anything that has got Google badge on it or Nest badge will indeed be accessible. And that's something that is great. You must be very proud Kendra, to be part of this.

Kyndra Price: Oh yeah. And I think, you know, I've been on accessibility, Chris and I came on around the same time, so I think I'm in it about four and a half years, year four or something like that. And I think this is a really exciting time for us because we are seeing sort of all of our hard work in the last couple of years really come to light and really have that lasting impact. And I loved everything you said today, Chris, but I'll have to say I really liked what Sarah said from Apple as well.

Chris Patnoe: She's amazing.

Kyndra Price: She's amazing.

Speaker 1: Sarah from Apple?

Kyndra Price: Yes. And I just, I really appreciated the fact that she was talking about accessibility just on a high level being about building better products and that's all it is. And I think that for me, that's something that's really starting to resonate across user stories and everyone's understanding of what accessibility is. And I think that really helps.

Speaker 4: I mean, we're so fortunate as disabled end users to have these two top tech giants really trying to out compete each other in being inclusive. And certainly from the Google point of view, you've taken inclusion and you've kind of democratized it. You've made it as accessible to people right across the globe regardless of income or the amount of personalization that they need to do, it's the kind of sophisticated option that allows people to really meet their needs. And that's been born out in all the additional projects that you've been talking about recently to go the extra mile to help people with, really quite significant requirements. And all of these new projects are just, you know, the brand of Google that things are done and new things come out and everything is pushing in the right direction and kind of pushing the envelope. And we're very lucky to be living in these times.

Chris Patnoe: I think some of what you're seeing is, is the way Google is run. It's a very bottoms-up company. There's no topic for good or for bad. There's no top-down, you should do this. And everyone sort of falls in line. People do what they think is right. People follow their passion and the.

Speaker 4: 20%.

Chris Patnoe: 20% I started an accessibility as a 20% what I found out my app at the time, Google play music, it wasn't accessible. Someone should be button, button, button. I asked "What's that?" And she said, "Well this is your app for someone who's blind." And I said "That's stupid. How do they use it?" She said, "That's why I'm here." So you can make your 20% but I was, I wanted to bring up the life transcribe app. It's a really good example of what you can do at Google.

There was a, there was a profoundly deaf engineer named Dmitri who was, who became deaf at one, was raised in Russia and learned English phonetically from books. So his accent isn't typical for someone speaking English. And one of the engineers who were working with him thought, I'm having a hard time understanding, he's having a hard time understanding me because he's deaf. I would if I could do something about that. So he created a prototype, just stitching different technologies that we had a Google together and it turned into the prototype that eventually became Life Transcribe.

And it started just because two people wanted to talk. So you're seeing a lot of innovation because at Google we have these technologies, we have these massive research infrastructure and technologies and people just find the use case for it. And it's not because there's one person, okay, this year we're working on vision. This year we're working on sound. Someone found it, they found the need, they found the use case, and they had the technology and the skills to be able to turn it into something that's profoundly impactful.

Speaker 1: And what about users themselves? I mean the influence. And so say I had the greatest idea in the world and I thought that would be an amazing addition to the product. Is that going to happen, Kendra? Could, can I be a millionaire? I want to win the money.

Kyndra Price: Yes, you can.

Speaker 1: I have no interest in anything else, I just want the cash.

Kyndra Price: Yes. No, I think that, so this is actually falls a lot on what I do in terms of the disability support team as well as community as well as external partnerships. I think there's so many ways to work with the community and community work with Google. And I think one thing that really we should be doing even more next year, even though we already do a lot of this, is looking at additional ways we can meet users where they are versus asking them to come to us. And so right now we have things like the disability support team, right? You can contact us through chat, email, phone, Be My Eyes, all these different channels. You can go to our help center articles. You can just submit a form feedback that we look at. You can work with an organization that we work with and make sure that we get that feedback through the organization.

There's a bunch of these ways, right? But I think that what we are looking to do maybe even potentially more so in the events space, going to more conferences and whatnot, but also in terms of going and finding other communities that are out there as well and engaging in those forums. And I think that that will hopefully that will help really meet people where they are versus asking them to come to us.

Chris Patnoe: Well we also have the trusted tester program, so we actually have paddles of several hundred people who are under NDA that we phones. We screen them to make sure that they're technically savvy enough to be able to provide good feedback, but they have a chance to take a look at software and hardware before it ships. So we have an opportunity to have the dialogue with, with different communities. We have a panel of blind division, we have a panel of deaf, hard of hearing, working on mobility. And these conversations help make the products that we're building better for everyone and sometimes they spark ideas that could turn into a new product or new feature. So we need, this is something we're doing actively and we could certainly do more.

Speaker 4: And this segways nicely into what I'm sure many of our listeners are wanting us to ask, which is we're aware of the brilliant things that Google are doing today. What's coming around the corner, what's coming tomorrow? So the pixel phones, very, very popular line of smartphones. Look Out for example, is a brilliant addition to that for people with vision impairment.

Speaker 1: Yeah, that's a brilliant app. I mean it's US only at the moment isn't it?

Chris Patnoe: For now. For now.

Speaker 1: It's coming soon, hopefully into the UK. But for those who don't know what Look Out is, can you explain that?

Chris Patnoe: Yeah, it's an app that uses computer vision on your phone to describe the world, objects, and text around you so it could say there's a chair at 12 o'clock there's scissors at two o'clock he uses a clock directions and, or you can read small bits of text so you can pull up a letter and it'll read the letter to you or a menu. It'll start working with the top and to start reciting things for you.

Speaker 1: I've got to tell you, I used an app a few years back called aipoli, which was kind of a very early version of this kind of technology. And I pointed at my wife and it said, "Labrador", I've got to tell you my sofa is very comfortable. And I learned that well that night. I was blamed because the computer thought she was a, she was a Labrador. So it's not going to do that. As long as it doesn't do that, Chris, because I will be calling you if it does.

Chris Patnoe: Well, it's funny you mentioned that, when we were testing some of those AI and Ian, Ian talked about this. He showed it to his dog. It was called a "rabbit."

Speaker 1: Wow. Right, okay.

Chris Patnoe: And then, and then later he hit a rabbit. I think. God, I hope it doesn't say dog.

Speaker 1: But the dog at least won't force you to sleep on the couch. That's the good news.

Chris Patnoe: No, because he'll be on there. So the dog will be on the bed. That's why your on the couch.

Kyndra Price: That's true. That's true.

Chris Patnoe: For the record we fixed that.

Speaker 1: That's fine.

Chris Patnoe: So you don't have to worry about, so your safe.

Speaker 1: All right.

Chris Patnoe: And so is your dog.

Speaker 1: Excellent. I want to ask about future technology as well. And I know, I will ask you lots of questions and you'll not give us the answer. But I, we've got to ask these questions, right? So two things, just two things in my mind that I want to ask you about.

Chris Patnoe: I'm not going to answer one of them. You know it.

Speaker 1: I know one of them, but I've got an extra one. I'm going to throw in as well.

Chris Patnoe: Oh, shoot. Okay.

Speaker 1: But the first one's about Google Glass.

Chris Patnoe: That was the one, no I'm kidding.

Speaker 1: That's the one menagerie. But no this is interesting because we of course we saw Google Glass a few years back, but then that product kind of went away, it does seem as if we're moving towards a time where wearable technology is becoming the next thing, isn't it? If it seems to be moving in that direction with all kinds of tech companies looking at that, we've seen the Bose AR frames, we've seen echo glasses or was it echo?

Chris Patnoe: Frames.

Speaker 1: The Amazon echo frames.

Chris Patnoe: Yep.

Speaker 1: So you know, with that, we're seeing a move towards this approach. Now for blind people the idea of having a camera in glasses is very exciting.

Chris Patnoe: Hugely.

Speaker 1: And I'm not going to ask you the question when Google Glass is coming back, I'm not going to ask you that mean.

Robin: They are.

Speaker 1: Okay. He said, Robin said that, not Chris.

Chris Patnoe: You could ask it.

Speaker 1: you can ask.

Chris Patnoe: I may even give you an answer. You're surprised by,

Speaker 1: Okay.

Chris Patnoe: well they actually, they actually never went away. What happened is they turned into enterprise gear.

Speaker 1: Right.

Chris Patnoe: So we are actually still selling Google Glass, but we're selling it to businesses because we found there was a use case where people are willing to buy it. It's a legitimate business. So Google Glass actually hasn't gone away. It's just not really a commercial product at this point, because of the all the reasons why it's not being talked about.

Speaker 1: But the question I wanted to ask you instead of asking you when they're coming out is, or when they're coming back or whatever, is about the ethics of them, because blind people, Robin and I have this conversation all the time. How great would it be to have camera in glasses, be my eyes for example, Ira in the States, all of that would just be brilliant through this product. But does the sighted world see it that way?

Chris Patnoe: And that's part of the challenge. The one thing when talking with people about different foreign factors, I mean I'd love to have what we call a camera turned into a light sensor and then there's no longer something that's videoing you. It's no longer taking pictures. It's just taking in light of the world around you and processing it locally and giving information about it. So we, if we stop talking about it as a camera and as a sensor, then it becomes less intrusive. It becomes less. It's less people standing in the shower taking a picture of the sales wearing Google Glass.

Speaker 1: That's a really bad idea.

Chris Patnoe: That's what killed Google Glass was that picture.

Speaker 1: Right.

Chris Patnoe: But more seriously, the form factors are really important. Right now, Look Out, you have to hold it in front of you or you have to wear it in a lanyard around your neck, which which makes it a little risky because it's this valuable thing that's so important to your life around your neck. It's not a great for longterm use. It's not the best experience, but it works really well in more narrow use cases.

So all companies, Apple, Google, Microsoft, we're all investigating different kinds of foreign factors in glasses are are one of them because it allows you to keep your hands free and I think using a blind illusion use case solves one of the problems, which is if you could do your quote unquote AR glasses, like minority reports, you have to have images being presented in front of you and that adds a lot of logistical problems. Like what if someone has to work, if someone has to wear glasses and how do you write in, where do you put the information in front of you? If we skip that and then you can start work and say start focusing on creating experiences that are audio based, akin to what happens with the Bose AR. But you add a camera and you come up on a different level of information, excuse me, add a light sensor. Then you provide,

Speaker 1: Yeah, yeah not a camera.

Chris Patnoe: Different kinds of, not a camera. If it walks like a duck, talks like a duck, but it's not a camera.

Speaker 1: It's not going to be on the wall or slide written up. It's not a camera.

Chris Patnoe: You can say it a thousand times. But the problem is people, people don't read. People won't. People will say it think it's a camera.

Speaker 1: Yeah.

Chris Patnoe: So so maybe wouldn't it be interesting if a product like this were created with specifically to address a bi-[inaudible 00:15:08] use case? Maybe that could turn the conversation around because now we have a real legitimate use of the technology. So for me I'm excited about leaning into this use case and maybe could help change the concept of having a camera on your head or a light sensor on your head.

Speaker 4: And I think privacy is obviously a huge concern and a lot of what Google has been doing recently in their AI area for accessibility is on-device. You've really been leaning into that and that obviously has really beneficial use cases. We're not always connected and there might be latency, et cetera. It's really powerful to compete on the edge. Could you not have something that remains on device that could allay some of the privacy fears of people when you've got a head-mounted light detector.

Chris Patnoe: There's a compromise that you need to make. Well in terms of affordability and access, that's the accessibility. You would need to have a much more powerful phone, a much more expensive phone to be able to do more without sending it to the Cloud. So if you, but if you have it, you can have a less expensive device and you can send the data up to the Cloud and then we have the Cloud do the rendering for you and then send back the data. So and that could be done in a, in a private confidential way as well.

So I think we need to change the conversation a little bit about, just because it goes to the quote unquote Cloud doesn't mean it's not confidential, doesn't mean it's not treated securely and privately. So we need to break that, the belief that the Cloud is inherently insecure, inherently not private. That's the conversation we need to have, because this benefits to being able to send it to the Cloud. So someone with a $50 phone can benefit from the same, if not better performance than someone who has $1000 phone. It's a trade off. And I think it's important for people to realize that you can make a choice and you can still have your data, your life private as well.

Speaker 1: Well it kind of ties into the second question in a way because what tends to happen is that people, I will say slightly, people get in the way because they're the say, "Oh, privacy is terrible. So we can't have those." Kind of a camera and our glasses and the same conversation happens on a driverless cars, which is of course a next big thing I guess for transport. And I want to ask you a bit about that just in the sense of the broad strokes of I guess because it feels like this technology is becoming better and better every day. Google of course is a huge project on this and whilst people might not necessarily link that with accessibility, of course it has huge impacts on blind and partially sighted people because of mobility. Getting around, going to that nice little restaurant up the road. I mean it sounds crazy but these are the kinds of things that matter to people in life. These are the important things.

Where are you, Kyndra, on this? I mean Google obviously has this project is ongoing. When do you think we're likely to see something that is, I mean and what will Google's role be in the development of this going forward. Is it going to be the little car we saw, the little bubble car?

Kyndra Price: Wouldn't that be cute.

Speaker 1: Because I think those are great, those are really nice,

Kyndra Price: Yeah, I mean in terms of timeline I don't think I can provide that. But I do know that the Waymo team and I really and others have been working since day one really in terms of testing and getting input. This goes back to your question about as a user, can I give feedback? And we've all been working really closely with actually some of the same partners. So for example like United spinals is a really large organization they've consistently been working with. I think one of the first marketing videos they did actually was a ride or the first person who took a ride in a Waymo was someone who was blind and so that was kind of their first user story, so to speak. I can't really say much except that I'm just incredibly excited about it and that they have been focused on accessibility since day one, which is always something that's really exciting to know.

Speaker 1: I've, I mean that's the point of this isn't it, that this technology, it kind of, it's on the edges of accessibility for, I guess from what you guys are doing everyday. I mean it could be wrong, but I get that impression because of course of what the nature of it is here in the UK. The argument's been all about regulation as their up and about whether or not you can actually get in one of these cars.

Speaker 4: Time on your thing factor. Not the, not the AI, not they're getting to level five full autonomy, et cetera. That's around the corner in well mapped routes. It's there today. There are already a commercial routes in various different cities around the world where you have that service already in action. But yeah, it kind of comes back to the camera while light detector mounted, the privacy thing. It's about confidence, it's about acceptance. It's about people becoming comfortable with the technology playing that bigger part in their lives. And I think regulation will get pushed by sentiment, but I think that's probably going to be the limiting factor. Not actually the tech.

Speaker 1: Yeah.

Chris Patnoe: Both of the tech has really, really hard. Waymo they, we had hoped we would have something now and it just to do it right and to do it consistently. And all circumstances it's tough, but there are active situation, there are there places like in Phoenix where we actually have taxis that are doing this, that there's still, as I say, a driver there just in case something goes. But it's a legitimate technology. But the edge cases are so important. There's been situations, unfortunate situations from some of our competitors. I'm not going to mention any names, but we don't want that to happen. No one should have that happen. So you have to be really, really careful. It's because it's not just here. It's not just the person who was disabled on the inside. It's also the people on the outside and the consequences could be dire. So we have to, you have to go carefully.

Speaker 4: Again, that's an optics thing though, isn't it? Because the number of autonomous miles driven versus the number of incidents actually verifies that it's a safe technology. But yeah, the public perception needs to, you need to win over hearts and minds as well.

Speaker 1: Yeah, yeah.

Kyndra Price: You certainly hear about every single problem.

Speaker 1: Of course you do.

Kyndra Price: That happens, but you don't hear about every car crash that happens every day. Right?

Speaker 1: Yeah, exactly. And I think that's the point. But it kind of goes to that wider conversation about the influence of the sight public if you like, or the able bodied public who will have views on these things but don't necessarily match up with ours. So whether it'd be Google Glass with camera or light censer or, I'm not going to forget this are we. It's no a camera. Okay. It's not a camera, but I think it's a really exciting time. Of course, artificial intelligence, augmented reality plays into all of this technology doesn't it? And whether it be a smartphone, whether it'd be a driverless car, Part or side, the technology is just moving on a pace. How do you guys keep up because I can't keep up. How do you keep up with all of this stuff?

Chris Patnoe: Coffee.

Kyndra Price: I was going to say.

Speaker 4: Love it.

Chris Patnoe: Red bull.

Speaker 1: Red bull.

Kyndra Price: I mean one thing that I think makes it easy, a little easier for us maybe is that we're on this central accessibility team. So we are tasked with working with every single team across Google. And so we have contacts within every team across Google. We're on newsletters, we're on meetings and I think at least on the Google spectrum of things, that makes it a lot easier in my opinion to keep up with it.

Chris Patnoe: And I spent a lot of time reading what are our friends in different businesses are doing. So I spent a lot of time on just trying to understand what Microsoft is doing, what Apple is doing, what Amazon is doing. Because everyone is really, is doing really great and impactful work and we can either inspire us, it can, help us understand what's important. "Oh they're doing this. I've ever thought of that. We should, we should look at this." So,

Speaker 1: But that's so important for, I'll give you a great example of where that is brilliant. And I've seen this through a Chromebox which of course is on Chromebooks and we're noticing this note with Narrater and Microsoft, a little bit of this in voiceover on the Mac as well, where you, there's a kind of a correlation happening all, for example, keystrokes on how to move around the screen. That's such an important thing, because we don't want to do is, you know, use one machine and go to a different machine and it's a whole new experience or a whole new way of doing things. And yes, there are some differences here and there, but the point is that those kinds of similarities matter, those kinds of things matter because especially someone who's coming to this fairly new, they want to know how this thing works.

And if we can, if it's simple across devices and it's shared experiences across devices to some degree, then that helps us all help each other. You could have a problem with a phone or a friend could have a problem with the Android phone or whatever and we can work out between us, we don't have to be a part in it. And that, that collaboration aspect is important for you guys, isn't it? That you do work and talk to the other companies? I mean of course Google as a company wants people to buy Google products, right? That's the whole point. But when it comes to the accessibility side, you guys are very much open, open door.

Chris Patnoe: We,

Speaker 1: That's, that's my impression.

Chris Patnoe: We really collaborate a lot to be candid with what happened about the differences, but the support.

Kyndra Price: I, yeah, I think that was actually kind of a surprise almost coming into the accessibility team was how much information we share with each other. It's sort of that non-compete space, so to speak, where everyone wants to just do what's best and do what's right.

Speaker 1: It's not how you guys see it. Like it's not yet.

Kyndra Price: Right. So, even when,

Speaker 1: What you're fighting for.

Kyndra Price: When I did the disability support team, for example, we literally went to Microsoft and Apple and asked them, "Can you tell us what has been working and not working on your support teams?" And both of them were, are incredibly open and sharing. And I think that that really helped to shape our support team and get it off the ground much quicker. And so I just, I think things like that are incredibly helpful and has been very surprising at times at how much we are willing to share in this space.

Speaker 1: And where such great work has happened in great collaboration. For example, things like Be My Eyes again a fantastic collaboration. Tell us how that came about.

Kyndra Price: So Be My Eyes. We had met through various organizations, but we actually had them come to what's called Accessibility Week at Google. And that's a week of various events. We actually just had it and we essentially use it internally to spread awareness of accessibility. We do trainings, things like that. And so we had Be My Eyes come to that accessibility week a few, a year ago. And they gave, just a demonstration, they talked about the importance of building community and having community members work with community members. And that's something that Google really tends to enjoy is, we call it Google to Google or G to G community. So I, we just really liked that thought. And then very soon after they actually launched the specialized support, which was something that I really wanted to see happen specifically because we had already had our agents and we wanted to offer sort of this specialized agent, highly trained approach on top of the volunteer that you can get.

And so when that launched, that was just really exciting for us. And I think that the Be My Eyes team specifically has just been incredibly open at working with, they take feedback incredibly serious. Their, I think their community, the fact that it's over 3 million volunteers now, I think is just really taken off. And what we've seen on the support side is, again, I think this goes back to meeting users where they are. It's actually one of our highest volume channels on our support team. And it's not just helping people who are blind or low vision, it's actually helping our agents, and it's helping all of us get to an answer and a solution quicker. And I think that that's probably been the most exciting part of it.

Speaker 4: Yeah. Cause a five minute or three minute video call going through a particular issue, even if it's just a usability issue that someone's having, getting to grips with the product or whatever it might be is gold.

Kyndra Price: Right.

Speaker 4: Isn't it? Compared to an email or a bit of feedback through the hub.

Kyndra Price: Right.

Speaker 4: So absolutely, really good.

Speaker 1: Guys, it has been so lovely having you back on the show. Thank you so much for coming back on and telling us all about Google and accessibility.

Kyndra Price: Thanks for inviting us.

Speaker 1: Thank you, Kyndra.

Kyndra Price: That was great.

Speaker 1: And Chris, thank you much.

Speaker 4: Thanks guys.