

FACEBOOK LIVE WITH SANJAY PODDER OF ACCENTURE LABS' TECH4GOOD TEAM

Video Transcript

Sanjay Podder: Hello, everyone. I am Sanjay Podder. I'm the managing director of Accenture Labs in India. And welcome to the live session today of Innovation for Inclusion. This is, in fact, one of the four FB Live events we are doing to celebrate the 25th anniversary of International Day of Persons with Disabilities. And today, what I really want to talk about and share with you is our own journey as a lab and in Accenture to innovate for people or persons with disabilities.

So Technology For Good in fact is one of the first things we are extremely passionate about. And in the lab, we do research on a number of emerging technologies: artificial intelligence, IOT, block chain and so on and so forth—wearables, for example. What we have seen is that these technologies when in isolation or when brought together in combination can really help break down barriers and make the world much more accessible. And that has been the driving force behind the Tech4Good program in the lab.

A number of initiatives have been done and I'm very, very happy to share with you what we could achieve with the help of all of these

technologies. So what we will really discuss is some of the solutions for the sight-impaired people, some of the solutions for the hearing-impaired people, and how do we really improve their productivity in the workplace or bring more happiness in their lives and help them express themselves better. But before that, an important point: you can see the live captioning by clicking the link in the post box. So please do that.

Especially in a world where increasingly people are questioning or challenging the impact of digital, the Tech4Good research we do in the lab to build a much more inclusive world with the help of all these emerging technologies really stands out. And it also aligns well with Accenture's vision of having people at the heart, people at the center (as we say, "People First"), around which we build a better world with technology. Technology is an essential element for all these solutions, but let me tell you that none of these solutions can be built in the four walls of the lab. What we really do is work really very closely with the impacted people. And let me explain this to you in a little more details.

For example, the first solution I want to talk about is Drishti. And as you know, the word



“Drishti” is the Sanskrit word for “vision.” It all started with our association with the National Association for the Blind in India, and what we really found working with them is that the kind of things that can really make an impact in the lives of people who have vision impairment. For one, we learned that people who have vision impairment have different levels of vision impairment, and so it's not a black and white world for them. And that was very insightful for us as researchers. And one of the things we all realized is that to build accessibility solutions, we need to first understand the lives of people who have some form of disability so that we can build a solution better well-suited to their needs.

And with that in mind, the disability solution called Drishti was born, where we looked at the challenges faced by people opposed to the release of the new currencies. They were unable to understand what was the currency in India because the currency notes were smaller, and we thought it would be really good if we built a solution that will allow them a mobile solution that will allow them to understand what is the denomination of the currency they are holding. Or for example, when one of the persons told us that, “Hey, can you help us identify the people in our workplace who are not around us when we are in a conference room?” And with the whole, with that idea, we thought about how about bringing the power of face recognition, so that we can help them understand who all are in their workplace surrounding them? Or, for that matter, one other person told me, “Will you help us to know when my family members enter my room in the house, and I would like to know when my wife enters in the house, for example?” And we brought in the power of face recognition in the solution. We

brought an OCR, for example, to allow them to read documents with our Drishti solution.

So many of these features were inspired by the real requirements of the people who are going to use the solution, and we felt that this whole innovation approach really worked for us. For one, we made it human-centric, so you do not really have to expect somebody who is vision-impaired to be clicking a lot of buttons in a smartphone, for example. So that was one of the great experiences for us. We have multiple versions of Drishti. We build it with smart glasses, for example.

The other solution I really want to talk is something we call Dhvani (which again is a Sanskrit word for “sound”). Dhvani was born with a need we heard in our own workplace. So Accenture has a number of employees who are persons with disabilities but at the same time, they are highly productive. And the question was how do we make them even more productive? How do we make the environment even more accessible? For example, can they enter into conference calls, Skype calls, conference calls without the need of any human assistance? Can they express themselves in conference calls? And then we thought about bringing some of the technologies like speech-to-text, text-to-speech, embed them in the Skype for Business systems that we use so that they can, without human assistance, they can make their point of view, they can understand when others are speaking. And then the technology was also used in the context of helping them finish their online training. So that is another solution, very human-centric again with the power of AI. We build for our own employees.



And today I'm very excited to -- I have with me Janhavi Joshi. She is the co-founder of BleeTech. And I'm very excited to announce a very, very nice solution and you will hear a little bit more about it in a short while. And this solution is about bringing dance to the life of people who are hearing-impaired. So can the hearing-impaired people dance to any music? So let's hear and learn a little bit more from Janhavi. So Janhavi, first of all, thanks for joining us.

Janhavi Joshi: Thank you so much.

Sanjay Podder: You are one of the amazing women entrepreneurs in our country and BleeTech has been making a lot of news. What I wanted to hear from you is what inspired you to build innovation, what inspired you to do innovation for the hearing-impaired in particular? So if you could give us some idea.

Janhavi Joshi: So thank you so much, first of all, for having me. So we started, I myself am a Kathak dancer, a classical Indian dancer and my co-founder, Nupura, she is also into performing arts. So a couple of years ago, we had seen a performance by hearing-impaired dancers and it was beautiful, but what they were doing was they were constantly having visual clues. There was a teacher sitting in front and she was constantly showing them counts. So this was something—a problem that we really connected with, and we thought let's try and use technology to solve this problem, make them more independent, confident, because dance is something that really helps them express themselves, communicate with the audience. So that is what really inspired us to go ahead and develop.

Sanjay Podder: And your dance is something that also helps build confidence in them.

Janhavi Joshi: Correct.

Sanjay Podder: You were describing to me an observation that they were actually feeling the speakers with their hand to get the rhythm.

Janhavi Joshi: Correct. So they were feeling the vibrations of the music to get the rhythm. So that's when we realized that communicating sound through vibration is something they would be comfortable with.

Sanjay Podder: And with that your valuable device, BleeTech, was born?

Janhavi Joshi: Yes, yes.

Sanjay Podder: We are, like working together for almost close to a year now, thanks to NASSCOM Social Innovation Forum, you were challenge winners of the Accenture Labs mentorship. How do you feel the lab mentorship made a difference to BleeTech?

Janhavi Joshi: We were really fortunate to get connected with Accenture Labs. Previously, I will just quickly brief about the BleeWatch. The BleeWatch is a smartwatch exclusively designed for deaf people, people with hearing impairment, which helps them in different ways to simplify their lives. So the dance feature is a feature where we can work music into vibrations. And initially before we connected with Accenture Labs, there was a lot of manual handling with conversion of music, but Accenture has



really helped us in automating the whole process. Now we dynamically extract the beat from any song or any other track that can be used by the hearing-impaired dancers.

Sanjay Podder: So now, a lot, many songs are available for people to dance and also I think they can dance as a group in a synchronized fashion.

Janhavi Joshi: Yes. So now, we have also enabled one-to-many connections to which one teacher can control multiple students' devices.

Sanjay Podder: I was so thrilled to see the performance a couple of weeks back in Pune, one of the schools, for the device. So why don't we do this, let us show you a glimpse of the solution. So let's play a video so that you can see how the solution works.

[video plays]

[music]

Video Voiceover: In a world full of sound, can you imagine a world without music? A world without dance? Have you ever thought how the hearing-impaired perceived music? And can they dance if they can't hear music? BleeTech and Accenture Labs is enabling the hearing-impaired to transform music into vibrations and dance in unison.

Sanjay Podder in video: At Accenture Labs, we take great pride in mentoring young women entrepreneurs in technology. I have here two amazing women entrepreneurs who run BleeTech, this wearable device, and we have been working with them using our research in artificial intelligence, in haptics and wearables.

Janhavi Joshi in video: BleeWatch is a wearable for people with hearing impairment to improve their life. And we are excited to have technology support and software mentorship from Accenture Labs.

Video Voiceover: Dance is a feature in BleeTech that provides haptic feedback to the user through vibrations in sync with the beat. Earlier, beat patterns had to be manually extracted and programmed for each song, thereby limiting the number of songs available. Accenture Labs helped enhance the BleeWatch solution with dynamic extraction of rhythm from music, opening up a whole new world of music and dance for the hearing-impaired.

Rupesh Kaslay in video: Our intelligent haptics solution extracts beats from the songs that are relevant to dance.

Video Voiceover: The one-to-many connection feature enabled by Accenture Labs is helping dancers learn in groups, and also perform in perfect coordination with the rhythm and each other.

Nupura Kirloskar in video: BleeTech, along with intelligent haptic solution from Accenture Labs, is bringing latest moves of dance into lives of the hearing-impaired people, and we are very excited to open new opportunities for these people.

[music]

[video ends]

Sanjay Podder: So what you have really seen is how all these emerging technologies can help break the barriers, can make the world much more accessible and can help you express your talent. This is just a few



of the ways. There are many, many new solutions that come up and we are exploring in the lab. So, just stay tuned to hear more from us.

Finally, I do want to remind you that December 8, you will have the last Facebook Live session and we will have Jenny Lay-Flurrie. She's the chief accessibility officer from Microsoft and she's going to talk about how accessibility benefits all of us. I hoped you liked our presentation. Thank you so much.