IEEE Technology and Society Magazine Associate Editor Alexander Hayes interviewed Glass Explorer Cecilia Abadie on January 21, 2013. The complete Google Hangout interview is available for viewing on YouTube at http://goo.gl/YFFbxI.

Alexander Hayes: I’m meeting today with Cecilia Abadie. Cecilia can you tell us about where you are from and a brief introduction as to where you are located.

Cecilia Abadie: I’m originally from Uruguay in South America and I’m now living here in California near San Diego.

AH: Cecilia... you identify as a Glass Explorer. How did you get involved with this Google project?

CA: I was attending Google IO in July 2012, the developers conference that Google puts together every year. And they announced you could register for the sky diving thing... they announced you could register to buy Google #glass for $1500 and at that time nobody has seen them other than on a few people at Google and I registered... definitely, I was like rushing to get there...

AH: So...my second question is do you consider Google Glass to be a wearable technology?...and in what way does it differ from say a smart phone?

CA: The difference is that historically we always try, that is humanity, we try to build tools and then we try to integrate those tools as close as we can because they extend us and we did this with watches like the big clock in town then everybody having the big clock in every house and then we wanted it in every pocket and then we had it. on our wrist...so that’s the tendency...
that technology shows us that it responds to human needs and in this case with wearable computers its the same concept, computers start in a room, it continues in a desk, it continues in your pocket...inside your cellphone... but we still want it closer...we want it available every second... in case I have a question, I have a need to connect to someone and that’s why we are now having computers in our faces because it was a natural next step that we have been pursuing I think for...people have been trying to do these things since the late 1980’s...

AH: Yes...1980’s and earlier too...so, I have heard a similar analogy to that as well and I hear also that you know given this new technology that you have recently been involved and been at the centre of public interest in an incident involving the law. Can you please detail what happened and what has happened since that, and what has been the result of that altercation with the law?

CA: What it was as I was driving and I see the lights behind me which means you have to stop… an officer stops me and tells me that I was speeding and then after that he asks me...he completely knew that I was wearing Google Glass somehow because most people around don’t know it yet and he asks me why I was wearing Google Glass whilst I was driving so he knew when he asked me that question repeatedly and my only answer at that time was that I wear these all day long...I wear it from morning till night... that I was wearing it but I wasn’t using it and he gave me two tickets... or two infractions in one ticket which was one for the speeding and one for wearing or having a monitor visible to the driver...and that was the beginning of it...

AH: And it sounds like it’s gone a long way from there?

CA: It was a whole ride from there you could say. So what happened then is when I saw that he wrote that second infraction when I got home I looked at it and my mind was very confused and I was having all these questions because I never heard before that it would not be legal to be driving with Google Glass. I never suspected that these... me and all my friends had been driving for months at this time, right? Since like May till October we had all been driving without any problems so that was very unexpected and surprising so I posted the incident up in the social networks..in Google Plus and everybody started pouring comments and copying other people and it became like a big snowball.

AH: It has indeed and I’m part of the snowball, with more questions to ask. I’m very interested in what this digital eyewear or glass means in the context of your everyday life?

CA: It has different aspects. Being a pioneer in a technology that is so visible and so different, so feared, it really makes for differing types of experiences so there is the user experience or experimenting with new gadgets which many of us love etc!. For me it is like the geek in me. I love the experience of trying new stuff, getting new updates, getting new applications, so it’s a lot of fun and as a developer it’s been amazing because when you develop for a new gadget like this it has like sensors and we are doing like a fitness app and then you can see the sensors, you can count what the person is doing and you can track everything that is happening so as a developer it is an amazingly fun device. But then there is the experience of just going out on the street with these and people haven’t seen it and maybe they saw it last time on TV and now they see it live and they are like “Wow! Is that Google Glass?” and they want to try it and there are people you hear that are like whispering... “Google Glass!”...you know...it’s a fun experience… it’s a lot of fun.

AH: And when I say daily life I’m talking also about family, children, parents...partners and so on. How does it affect them?

CA: At the beginning I remember my husband asking me “You’re already wearing that thing?” And at night like “you’re still wearing that thing?” But everybody just got used to it, and my co-workers at the beginning we were in a meeting and they were like “ah”...you know, they were a little bit suspicious or felt weird but everybody got very used to it and what happened actually is that when they saw me without it they were like, “What happened? You’re missing your Glass,” so it became like an extension of me and some people took it that way. For kids it’s awesome because taking pictures of kids are a little harder sometimes but with these you can like make a wink, and it means I just took a picture and so it’s very simple and handy and you can capture even more moments.

AH: Sure... so that leads me to an indication as to say are you encountering any resistance from the general public in a public space or when I say public space I mean also private space because it depends on the context as to what is public and private.

CA: I’ve been out there in public and private and most reactions are very nice at the beginning or some people look but they don’t know what they are seeing. That’s the most weird, but some people are a little
weirded out about being recorded and some people will joke about it, and they will say: “hey… are you recording me?” or “are you taking your x-rays out” or things like that but I didn’t really have anybody become angry or not be nice but of course people here in California are very nice in general so I assume that if somebody didn’t like it that they would have already come to me. And then I’ve been in some tech circles and some people did raise questions about privacy but it wasn’t in a personal way against me, it was more like philosophically speaking or you know technically speaking about privacy, especially European people who are much more aware and concerned about privacy than Americans probably.

AH: So it’s a perception thing…and as you indicated there, it is also a cultural thing. So Cecilia are you aware of any issues that have arisen from someone engaging in activities where there was the possibility that they were being recorded? Have there been any incidents that you are aware of from someone wearing Glass?

CA: No… There has been an incident that has happened very recently about a person in the movies that was suspected of recording but the guy was not recording but in my opinion he should have been asked at the entrance, that if I go into the movies and they ask me at the entrance to take them off I would gladly take them off or leave the movies but I think it was very unfair that he wasn’t given the chance at the entrance and then he was kind of violently experiencing. I didn’t like that and I don’t think it should work that way and I think if you’re going to forbid it then forbid it from the beginning. Make a sign that says, “this is not allowed and everybody will be fined” but other than that…I don’t think that…well, Explorers for now are a very select group of people that are super nice and super engaged and responsible and we feel like ambassadors that have to keep these clean and you know… be nice and… we try…

AH: You try… so… the majority of times you’re acting in accordance to what is in the best interests of the best way forward for the device itself?

CA: Yes.

AH: Where do you think Google Glass is of most benefit say to people in occupations where they need to be hands free? Where they need to operate with their hands in a workplace environment and they have to undertake tasks?

CA: Well… being hands free… if you think about it and using your voice is a natural type of interface for us. We come built that way so everyone can benefit from being hands free because we come to the world hands free so I think in that regard pretty much anyone can benefit from it but I see what you’re saying. There are some certain verticals that would benefit more like construction. There is a very interesting application out there for firemen. There’s going to be everything that has got to do with health and medical services as well. Doctors are very excited around the whole country about it, and the other thing that is very interesting about these versus the hands free point-of-view. So having the point-of-view, the personal point-of-view. For like real state and for tourism… there is amazing things to do with tourism and one of the applications that I’m most, most excited about is everything to do with people who have disabilities because if I’m in a chair let say if I can just move my arms or just do this (head tilt) or use my voice because the internet of things and Google Glass are like a perfect combination for someone to control everything around them and take control of their own lives. And I’m so excited for that. I would love to do more projects with that.

AH: So the big question is what does the term “privacy” mean to you?

CA: I believe that privacy is very important as far as my personal data is concerned but when it comes to public spaces I believe, and I’m all for fighting for our privacy as far as I should own my data and nobody should be able to pick into my data so that’s something I think that is a battle. And I believe that open source has a huge role in these (applications) in the future. I think the open source movement has to come together and because if we don’t control the software, the platform how can we control the data? I’m a big believer in open source to save us from this mess but on the other hand also from the public getting together consciously and being aware of our options to do with this technology. But on the other hand there is privacy in the public space which is making a big turmoil with Google Glass and I believe this is not very serious because in the public space you can be seen. And anywhere that you can be seen you can be recorded, and I think that is clear. And I think in the future we are going to move into an aspect of having extended memories via cameras so I believe like I have very bad memory and I want to have cameras that are recording everything I see and I think I’m entitled to my extended memory, and I think it’s going to be something that we get used to, get over it…if you’re in a public space there is no privacy…and just…that’s it.

AH: Hmm… very similar analogies drawn there with Professor Steve Mann when you say I’m entitled to or I wish to be entitled to recording when I wish at any time. Cecilia, what do you think the implications for humanity will be of wearable technology?
CA: I think we are more connected than ever and I think that technology has a role. Sometimes we look at some parts in our digital connection that is broken but in reality we have never been as connected as today. We have never been as smart as today because today you can Google something. In a second you can find an answer that leads to the next question, so you can build stuff together even when you’re in different parts of the world. So I believe it’s the best time ever for humanity. I would never travel back in time, I’ll always travel forward. We are becoming smarter and I’m very positive about the future of humanity and I believe technology connects us, extends us and augments us, and that’s what I’m fascinated about.

AH: So what will the technology look like if it has gone from wearable technology to an embedded technology? What sorts of embedded technologies would we be looking to better understand?

CA: There are going to be chips that we are going to implant that have GPS, information about our identity, information for health. It is amazing because you can have constant information on anything that is happening in your body so you could have alerts that are triggered for yourself or your medical caregivers and you can know when anything gets out of shape and you know prevent things way before they happen. It’s a whole new world but I think it’s a little ahead of us but nanotechnology things like that, probably microchips and things like that. Like Google just announced a little contact lens that will test your glucose levels constantly and it has just a tiny, tiny chip and that’s going to help a lot of people not to have to worry about their numbers and be aware of every moment to prevent accidents and things – the sky’s the limit.

AH: The sky’s the limit...what a fantastic title for this interview. I look forward to hearing a great deal more about your thoughts in that trajectory of technology as it comes closer and closer and in fact eventually as you say being embedded within us. So thank you very much for joining me today.

CA: Thank you Alexander.

We are already seeing people do this, i.e., the large number of wearable health monitoring systems. Let us, in fact, give equal “weight” to our study and practice of:

- Veillance: surveillance and sousveillance (inverse surveillance);
- Curity: security and suicurity; and the
- Vironment: environment and exvironment (reciprocal environment, i.e., ourselves as much as that which surrounds or encircles us).

The extent to which security guards forbid “suicurity” systems such as the wearable computer, is the extent to which we are living “in custody,” that is, the extent to which we’re expected to “trust security” while being mis-trusted by it.

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References