

Transcript

Video: Introduction.

Series: Assistive Devices and Information and Telecommunications Technologies.

Universidad Nacional de Educación a Distancia (UNED)

Narrator

Javier Romañach, Human Rights activist in Spain. Guillermo Fesser, journalist - *Gomaespuma*.

Guillermo

Have you heard of the cyborg, something about this legendary character?

Javier

Yes, Neil Harbisson. He's not a legend, he's a guy who appears on the Internet and everywhere claiming that he's the first cyborg in history.

Guillermo

But what exactly is a cyborg? Is it a compendium of...?

Javier

A cyborg is like a mixture between a human and a machine. What the guy did, since he was color-blind, was to implant a camera with a chip that transmits sounds conveying colors to him.

Guillermo

Damn, when he actually had an excuse to run traffic lights. For example, you, who are mechanized, are you a cyborg?

Javier

Sure, I discovered it when I heard him speak. I mean, if it's about having cybernetics –like my wheelchair, which has a lot of very sophisticated hardware– and the human side –which is me, as I am the human who goes in the chair–, then I've been a cyborg for twenty years.

Guillermo

So, there are many cyborgs going down the street. The thing is that this guy, as he has appeared on the news, seems like Superman. And then there are people like you, for example, or a neighbor, or some man who has other devices, a cane and such, who don't...

Javier

Yes, of course, being a cyborg is different from needing a wheelchair, I don't know if I explained it right.

Guillermo

Yeah, yeah, it's the same, but it's understood differently, right?

Javier

Yes. If I said: "I'm a cyborg" and went around demanding the rights of the cyborgs to enter some buildings, there would be a kind of school of technologists defending my rights. But, since I'm just a poor guy who goes around in a wheelchair, I'm screwed. So, when you start to describe yourself in another way, going from –for example– cyborg to disabled, it's a whole other world, and that requires technology. Well, functional diversity somehow affects

disability. That is, it's a person who functions in a different way and needs cyborgs or gadgets to function, or a person who can't do things. If you are telling people that they can't do things, that they can't... That vision is: "You can't do them." And when you can't do everything, everything you're given is like a favor, right? For example, the blind, because seeing the screen and being blind aren't compatible.

Guillermo

It's bad for them, of course.

Javier

There's a system that allows you to listen to the screen, like the cyborg that hears what he sees through the camera, as it allows you to listen to the screen. What's the issue? This is considered an assistive device instead of a cyborg.

Guillermo

So, what's happened is that a portion of society has had disastrous marketing.

Javier

I'd never seen it that way. Yes, indeed, yes.

Guillermo

It's very bad, because it's being seen as charity, perceiving: "Oh, poor people..." instead of approaching it as a question of human rights. "Hey, excuse me, I also want to get on the bus," right?

Javier

That's right. You buy an iPad or "iPlof" or whatever, and with all that you've bought a gadget, but if you need a screen reader, it's no longer a gadget; it's an assistive device.

Guillermo

Marketing, very bad marketing. Marketing for honest and decent people, and for the "poor people."

Javier

I think the UNED is working hard to try to explain to people that these assistive devices, especially for students, generate new gadgets.

Guillermo

To explain to people that a man in a wheelchair can climb a mountain. A blind man might also like to listen to music, not just to sell lottery tickets, or he might want to be a state attorney... Various inventions, let's see, we're talking about gadgets here.

Javier

It's crystal clear. What happens is that we're talking about the difference between an assistive device and a gadget, right? An assistive device becomes a gadget and cool when it reaches the general public. That is, as long as you invented it for a deaf person, for a blind person... Then it's an assistive device, which is a niche thing, right? But the truth is that a vast majority of these assistive devices end up becoming inventions that all of society uses, so then they are cool, they are gadgets, and they're great. The most paradigmatic example is that of Alexander Graham Bell, who invented the telephone because his mother was deaf and lived in a deaf community. He wanted the deaf to hear, so he tried to create a system of sound amplification and remote transmission. And so, there are a lot of inventions like that. I don't know if you

knew that the typewriter was invented for a blind person, for an Italian countess.

Guillermo

That must've been Mrs. Olivetti, of course.

Javier

You probably have a GPS, I don't know if you have a GPS in your car...

Guillermo

Me? I have two or three GPS. Can't you tell that I buy every GPS that I see?

Javier

It tells you: "Turn right in 200 meters." That voice synthesis began to develop many years ago so that the blind could have access to information. And the same technology is used in what is called a "screen reader."

Guillermo

But how did the blind people carry that?

Javier

No man, the device is a piece of hardware. So, it was used for elevators...

Guillermo

"You're arriving at the fifth floor."

Javier

Exactly, to be able to access information that...

Guillermo

"Careful, José Luis... you're going to run into the column..."

Javier

Oh, oh, oh. "In 200 meters, avoid the column." And then, that technology, which was speech synthesis, well, you take it out and you turn it into something that everyone uses. Because it turns out that we discovered that we humans have to do many things at once, and we can no longer look. To drive you have to keep your eyes on the road. If you look at the GPS, you'll crash, right?

So, there's predictive text now on mobile phones, which completes the words. That was created because there's another gadget they call an "assistive device." There are people who use only a button, as they can't handle more things. For example, an arm or a foot, they can only do like this. Then what you do is go across a keyboard; that is, "the A," well, then going: "A, B, C, D..."

Guillermo

And that takes a long time.

Javier

Yes, it takes a long time. So, to speed it up, a technology was invented many years ago called "predictive text," so that you could speed up the process by hitting just one option.

Guillermo

For example, it's eight in the morning and you type "C," and it puts "Coffee," right?

Javier

Exactly.

Guillermo

And if it's eight at night, "Cocktail," right? [Laughter]

Now I'm going to tell you a story about the remote control. Well, I'm going to tell you now, very quickly. The remote control was invented, and José Manuel La Peña's father bought a television with a remote control. Now, he was a very classic, very conservative, elegant and simple man, but very particular and fussy about his things. So, he turned the television on with the remote control and always placed it on top of the set and he sat in his armchair, and every time he had to change the channel, he went over to the television, grabbed the remote control, and changed it. So, his son says to him: "Dad, it's a remote control, but you use it..." "No, the remote control stays here. Don't touch it." So the remote control remained on the television. He had to move like everyone else, but he was happy.

Javier

The rest of the people mustn't have been like that. In fact, you wouldn't be able to watch television without a remote control. You wouldn't be able to have a GPS without speech synthesis, nor would you be able to operate a computer if it didn't have a keyboard. All the efforts devoted to the extremes of human diversity, to the extremes of humans' functional diversity, end up benefitting everyone.

Guillermo

And I have this question, which arises from a personal concern: these devices, the assistive devices, the gadgets to be a cyborg when you're older, how does it work? Does one go to the pharmacy with a prescription, or do they sell it at department stores?

Javier

There are different types depending on whether they're gadgets or assistive devices. Some come directly: if you buy an iPad, it already speaks to you. Mobile phones already talk to you, many of them, right? Gadgets are already built in. What was once only for the blind, now we've discovered that it's very good for us, to tell us who's calling us, so we can avoid picking up the phone.

Guillermo

Those are what they call "accessibility elements," right? For people who want a ramp instead of stairs, well, if you can't see the screen, they give you a voice...

Javier

That's right. When the product is widespread enough, when it has already reached many people, then it's included. These Windows operating systems, and all these come with things that you can add.

Guillermo

That's because those who had to push for them did so.

Javier

American legislation forced them to do it, otherwise: "I won't buy from you. I, the federal government, won't buy from you. And since I'm the best customer you have..."

Guillermo

Well, look, that's one thing...

Javier

And then there are other products that aren't like that, and they are expensive, like a speech synthesis system that reads the entire computer screen with all the windows, with all the internet, with everything...

Guillermo

For example, if you're blind and want to look for an apartment.

Javier

As long as they're still called "assistive devices," they're expensive. Then they become cheaper, as they realize: "Oh, damn, it's not an assistive device, it's a gadget." Then it becomes a gadget, and the technology spreads. Then it's no longer expensive and is included. The only thing you have to do is to have an open mind. And as long as people continue to have the "disabled version" that we give them, a little product to use and not like... "What a gadget we're going to get here, one that's good for all of us."

Guillermo

Pure marketing, pure marketing. And what's needed is a good advertising agency.

Javier

That's right.

Guillermo

A really good one with well-prepared people.

Javier

But, returning to the subject at hand. I already have all the gadgets. We've given the blind man all the gadgets, and now he can now operate a computer. But then we go to buy a plane ticket, the company has made an inaccessible web page. So the gadget becomes a problem, because things are not in the order they should go, and Iberia Customer Service says that there's no way to access "Buy," or no way to access the little window where the flight is indicated. Well, in the end we made a mess of things.

Guillermo

So, you have, let's see... The support elements are the ramp to get to a place, but if the place doesn't have a door, it's a problem...

Javier

That's right.

Guillermo

How is accessibility on webpages going? Do people make accessible websites, or is that very rare? You have your wonderful reader there...

Javier

I spent ten years trying to make websites accessible, and we were very successful. I think now about 0.01% of websites are accessible...

Guillermo

And good ones? At least good ones? Or, not even...

Javier

There's a little bit of everything. The strangest thing about all this...

Guillermo

The *Interviú* one, right?

Javier

Oh my God, I didn't think of that. Curiously, there was a law in 2002 that required all pages to be accessible, but that didn't happen. Half are public, by the way. In 2002 all public administrations were required to make webpages accessible.

Guillermo

2002 was a terrible year. They also chose a year that...

Javier

Well, since it didn't go well, they put it off until 2006, then until 2011. Then we have a law... We have a lot of laws but not accessible webpages.

Guillermo

So, all the young people who are currently thinking about designing a webpage have to think that it must be designed to be accessible.

Javier

Yes, but...

Guillermo

In order for the gadgets to be worth something and, above all, so that we benefit from...

Javier

Yes, but what I was saying is that once you have gadgets that work, that force the webpages to be user-friendly, what you get is a better webpage.

Do you know what happens when we start talking about all these gadgets, all this gadgetry, Superman and cyborgs, etcetera, etcetera? In the end, everyone believes that, with gadgets, we can fix everything.

Guillermo

Right.

Javier

So, these gadgets are great, and necessary, but they're not enough. I'm going to give you a very clear example of what happens to me. I have all the computers in my house adapted, with mice just for me, voice recognition, and I've inverted the contrast on the screens because it's better, at my age... But, of course, there's the little problem of: "I'm going to connect a pen drive," right? Then I can't pick up the pen drive because I don't have enough dexterity, I don't have the strength to put it in or to take it out. There comes a time when you say: "OK, until I have an automatic pen connector gadget, what you always need is a support person, what we call a personal assistant."

Guillermo

In other words, even if you have an eyebrow chip that programs your microwave, you have to put the chicken in...

Javier

Yes, it's that simple.