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>> Moderator: We are inviting distinguished representatives speaking at this session to take the places on the podium. As we know, the time is valuable here, so therefore, we kindly invite you to proceed today. Podium and to -- okay. I think

that everybody is now ready. Ready? Please take the lead, Rosheen. Voilà. We're still looking for the next signal person. No. So, we are looking for the digital disability innovation institute.

>> Ms. Rosheen: Without much adieu, we will go to the last session today, and thank you for your patience and for staying with us for this session.

On innovation and good practices in implementing ICT accessibility products.

We hope to hear from all our speakers on innovation. I know for sure, but I hope we can hear something on funding opportunities as, as well. So, let's see.

We will start with Dr. Michael Fembeck, Director and Chief Executive of The Zero Project Foundation, which is going to talk about innovative practices in ICT accessibility.

The floor is yours.

>> Dr. Michael Fembeck: Thank you, Rosheen. Thank you, ITU, for the opportunity to speak here and present some innovation that Zero Project has explored and communicated in the last 12 months or so.

I would like to start with giving you some information about the Zero Project and then move on swiftly to those innovations which we call innovative practices and policies soon after that.
So, what does the Zero Project do? The Zero Project is an initiative of the east foundation, which is an foundation founded in 2007. The ESSL Foundation. We are part of a community on fully focusing on exploring and communicating innovations, innovations that support the UN conventions on the rights of persons with disabilities, the ESSL Foundation, as mentioned, 11 years old, as old as the UN CRPD and we found soon that vehicle that reports on the progress of the UN CRPD is highly needed, especially from a civil society activity, and they found soon that being a rather comparatively small foundation, the focus on exploring, communicating, selecting and describing and finally inviting innovators to an audience like a conference is something that is very powerful and most needed. What we do is basically we are not the key experts or the most important experts on issues with persons with disabilities, but we are an expert in organizing a process that involves more than 1,000 persons with and without disabilities every year, and

which we call the Zero Project network and bring those people together to nominate, evaluate and finally vote on those innovations that this community finds most interesting and most outstanding. And, the communicators via a report brought some examples that are still outside in our booth. We organized the Zero Project conference every February, which happens to be here in this very room, and also to neighboring rooms, bring together some 6- to 700 people from 70 countries that are in a way or want to engage and listen to the innovators, which is quite an inspiring atmosphere every year. We organize other projects, like Zero Project transfer, we have some new founded projects like accessible academy, and we have got some recognition from United Nations. Like, we have the ECOSOC status from 2014, and recently the innovation that the Zero Project has selected in the last four years have been mentioned 50 times in the UN flagship report on disabilities which, of course, we are very proud of. So, we cover four topics in the four years cycle. The four topics are education, employment, accessibility, and independent living and political participation. This year our research is focusing on the independent living and political

participation. We have discovered, explored and will bring to the conference in February some, again, some 75 innovations from 55 countries which will all be here in this very room in February for the conference and present their innovations, for anyone who is interested just get in touch and weep eel be happy to extend an invitation to you.

In the second part I will focus on innovative practices that fits to the topic of this great conference here.

First, I would like to mention some patterns and solutions that we find among those practices and policies that the Zero Project network and community select has selected in recent years. We have got many, but some of them share some common features, some common patterns, which are listed here and which I'll briefly explain to you. As mentioned several times in this conference, standards, manuals, toolboxes are very powerful means of successful innovations. Building competence and bringing competence built around the skills of persons with disabilities together is a powerful tool that is used by many innovations.

Co-creating content platforms is a powerful tool. Bringing people together with and without disabilities that share a

similar problem want to work on joint activities and solutions a powerful tool.

Orientation maps, mostly on smart phone apps is a powerful tool with supporting all different kinds of people with disabilities. You got those orientation maps for, you have for people who are blind, people with intellectual disabilities, people with hearing in abilities, that's all happening.

Orientation technologies, automated captioning systems, IT platforms connecting peers, all these are solutions that are used by a successful innovations. What you can see on the screen is an innovation that we selected this year and have not officially communicated. It's not an app as it looks like. It is more than that. It is an Australian disability service organization and they have created their own telecom, so they started with a unit within their organization and this is now developed into a full-blown mobile phone service provider, and it's all built around this help button.

And, let me finish with some innovations that I thought after two days of conferences have not been mentioned, so I took out some of them that I think are adding content to this great

conference. This first one that I would like to mention, it's a dating app, an inclusive dating app that connects people with and without disabilities. It is from India and called Inclov, will be our keynote speaker at the next conference, by the way. This is an interesting development from Austria. I don't know if it was mentioned yesterday, it was not mentioned today. It is a translation app translating plain German or planing English into normal standardized language into plain or easy language, according to some norms and it is using artificial intelligence, so it's getting better all the time.

Many of you will have heard about wheel map and this German development and orientation maps. This organization wheel map, what they are doing now is to try to get all those people working on orientation maps into one Cloud solution that can be used again by everyone, and this is again an outstanding approach.

Showrooms competence, as I mentioned already, there is one outstanding one that we found in Singapore.

Thank you for your attention. Thanks.

>> (Applause)

>> Ms. Rosheen: Thank you for this presentation. We will of course not take questions now. We will just go along.
So, over to Anthony Giannoumis of Oslomet university to talk about diversity and inclusion in innovation.
>> Anthony Giannoumis: How we doing out there? Yeah. All right. We're still alive.
I think we hear a lot about this in word innovation in the media. It is a buzz word, we can all admit that, but I think we have to consider innovation not just as a catalyst for making change, but really as a way to make change in a more socially responsible way.
Based on my 20 years in the tech industry, my research in universal design, and as a serial entrepreneur myself, I've come up with three ways that diversity and inclusion can lead to research-driven innovation, and I say research-driven innovation intentionally, because we have a lot of innovation driven research, but what that usually amounts to is a book or an article that my mother reads that maybe a colleague cites halfway around the world, and it doesn't create any kind of change. I think we need to flip that on its head and focus on

research-driven innovation.

So, the number one thing that promoting diversity and inclusion and innovation process really enables us to do is more with less. Working with diverse stakeholders, including students, entrepreneurs, and end user communities, especially persons with disabilities and disabled peoples organizations enables us to build capacity, and to quote, unquote, expand the pie. Pie cooperating with a diverse set of stakeholders we can share opportunities, we can share in the benefits, and we can share in the recognition that comes with achieving a common purpose. And, over time, as those relationships grow, it opens up new sets of resources and opportunities for everyone, whether that is top down funding from government for research and innovation, or whether that is bottom up funding from venture capitalists, NGOs and other businesses. This could mean start up funding for a new business venture, a new social enterprise. This could mean funding for technology transfer, taking ideas out of the university and putting them into the market. Or this could be funding for theoretical and applied research. But fundamentally, these resources can help empower persons with

disabilities by opening up new opportunities for collaboration and ensuring that the accessibility of new products and services are there from the stand start from when they are being designed.

No. 2, diversity and inclusion means that we have the ton tee to learn from one another as an academic there is nothing I love more than learning from the world around me. Innovation is never achieved by sitting in an office and thinking big thoughts. It's created through social interaction. It's created in diverse teams. It's created when we open our minds to new possibilities and resist the institutionalized ways of working that create barriers and obstructions to participation and innovation.

From an individual perspective, working with a variety of stakeholders, including persons with disabilities, creates a space for what is called lateral thinking. Now, lateral thinking is very important for developing solutions to really systemic challenges, because it uses things like creativity and inductive reasoning to approach these challenges in a new and slightly different way.

Working with peer persons with disabilities brings new opportunities for teams to think laterally and create innovations that are accessible for persons with disabilities and usable for everyone.

This also means that we have to listen to each other, and this means that we have to really look hard at our institutions and decide whether or not they're still fit for purpose, and it means that we might have to radically reform our educational systems. We have to stop thinking about schools and universities as sacred spaces set apart from their community, but we have to start thinking of them as incubators, or multidisciplinary experts work with stakeholder groups and citizens to create change from the bottom up. This kind of reform necessitates the participation of all stakeholders, especially persons with disabilities.

3. Promoting diversity and innovation can create an international network of professional collaborators, and we see that here with us today right now. These collaborators can help sustain partnerships between academia, industry, government, and civil society. We have to stop cleaning go to outdated ideas

and tropes of the mad scientist toiling away in a laboratory day and night. This is a ridiculous pan toe mine of how research and innovation operate.

We have to leverage our relationships between civil society, government and industry to create innovation that is help bridge the gap between science and society. Now, this approach to innovation is not new. But where many of these networks fall short is in the inclusion of civil society, and in particular the inclusion of persons with disabilities and their representative organizations.

In the last ten years studies have shown the value of promoting diversity in innovation. And, there is something about the fundamental value for Equality that opens up space for diversity in innovation, but opening up space is not enough. We have to work actively to engage people from different backgrounds, cultures, and perspectives in order to realize that opportunity. We cannot sit back and passively wait for women, for persons of color, and for persons with disabilities and other socially disadvantage groups to just show up and help us innovate. I'm often invited to advise different organizations on how to be

innovative, and when I sit in those meetings and I look around and see a room full of people that think, look, and act like me, I know that we've already failed. But if I look around and I see the spectrum of the human experience, then I know we have the potential to change things for the better.

The rest is up to us to create these relationships, to foster and maintain these relationships, and to help realize the true value of diversity in innovation.

I, for one cannot wait to see was we do next.

Let's continue the conversation online.

>> (Applause)

>> Ms. Rosheen: Thank you Anthony for the inspiring note.

Let's see what will happen next.

Right now, though, we are going to talk more on barrier free access payment terminals for all, and Ms. Ayse Zoodsma-Sungur from (Inaudible) bank will talk about this.

>> Ms. Ayse: Thanks a lot, Rosheen. If I can get my point ter, we can see the slides also.

First of all, I would like to thank everyone who is responsible for this organization to give a central bank a floor, just to

give some example why a central bank like mine, dutch central bank, is supporting a platform called let's get pay-able.

So, if you start, I think the title of my presentation is let's get pay-able, but I will ask a question to ourselves. How pay-able is Europe? Any idea?

I don't see any fingers. In Europe we have 80 million people who are having disabilities. 80 million. A figure doesn't say much, but if you say Germany has a population of 80 million, I think it gives quite a concrete idea of what we are talking about. And, also, if you add up 100 million elderly people, then we do have out there a population which needs to be having accessible services and let's get pay-able is a voice for them to make it happen.

Let me see if I'm also -- I can be good payable person, but technically, let me see. Okay.

So, our platform is a good example of how regulators, supervisors and NGOs and people with disabilities get together to look at the matter and figure out, brainstorm what can we do about this? It started all in the Netherlands, actually? Why in the Netherlands? Because in the Netherlands our payment

systems are quite efficient and almost 8% of the population let me put it this way, paying with actually with cards. So, cash is diminishing, and then digitalization of the payment services bring the question how everyone is doing with that. Is it accessible for everyone?

So, we saw already in the Netherlands that payment terminals were not as accessible as we hoped for and we thought can we do something about it. Well, Netherlands is a nice country, but very small, and I don't think changing stuff in the Netherlands, especially for the payment terminals, wouldn't help much. So, we thought we should talk about this in Europe and get -- ask for awareness. So, was we decided is that to make one platform, make it a single issue, European platform, across sectoral platform which would advocate about accessibility of payment terminals. So, one smart single goal barrier free access to payment terminals for everyone in Europe. It's a good cause.

And who are our members? We do have our European members. These are the umbrella organizations, and a couple of them are here, also, today and we do have national members, and our members are representing the consumer and business interests.

So, in order to make a platform which delivers, you need to have actually everyone on board.

Just to give an example, a couple of terms, you see that age is the platform for elderly people, you see European disability forum, and also European vending association, and the others, also. And, a couple of them who are not on this, I mean my sheet is limited to put all the members on. There are more, and I do have some more members of how do you say who wants to be members and to be on our platform also. So, this is also kind of think about it, approach towards if you want to be on our platform.

And, who is our high patron? It is Mr. Rompuy. He was the President of European council from 2010-2014. He finds our cause also practical, noble, and workable, that is why he offered us to be the patron of our platform.

And this platform, a little bit of information. When did we start, where are we now, and what are our future plans?

So, in 2016, in June 22, the launch of the platform has been done. But it is also a little bit strange date, because it was the brakes date. I mean, well, (Laughter). So, you will see a

couple of pictures from the launch of date, and I see someone whom we all know on the picture role, but during the coffee break I will ask, have you seen her on the picture? Yes. Definitely.

In the initial European accessibility act, there were lots of areas which were on board, but to our disappointment, we saw that the payment terminals weren't on board. So, we thought we should go forward.

And, we did a lot of work on that, as for awareness and try to, how do you say, include, I won't use the word lobbing, try to influence and ask for awareness, but at the end of the day, the -- one moment. At the end of the day, the last version the payments terminals are on board.

So, in Europe the payments area are changing quite swiftly. I mean, there you see 2012 how we paid a number of card payments and you see in 2016 where we are now. So, it is really necessary to make all the payment terminals accessible and because slowly, slowly we are shifting from cash to other matters of payments, so it has to be accessible for us all.

As I said earlier, the most recent version of the European

accessibility act has the payment terminals also on board, so this little platform called let's get pay-able or payable has achieved its mission.

Are we going to stop? Of course not, because the work doesn't stop as long as the standardization of the payment terminals needs to be harmonized, and how are we going to ask awareness for that is we will be and would like to be engaged in the dialogues with payment terminal industry and talk about the standardization so there is still work to be done, and we are happy to deliver this work all together.

In the beginning of my presentation I talked about our members, so for your organizations also, if you would like to join to pay-able and what it means for you is that we don't ask institution, membership is free of payment, it's just a declaration of support, and your logo will be on our website.

You want to see more, hear more, read more, please visit our website, because I have here limited information to give you all the ins and outs. I believe you, it is really a nice and exciting journey to go to our website and you can read all of it.

Thank you very much.

>> (Applause)

>> Ms. Rosheen: Thank you, Ayse. It is an open invitation to whoever wants to join a central bank in a regional endeavor, actually, quite an interesting we're seeing things.

Now we are moving on to looking at mobile technology making public transport more accessible by Mr. Einar Myreng of next signal. The floor is yours.

>> Mr. Einar: First, thank you for letting me talk to you ladies and gentlemen, it is a pleasure to be here. It is a nice conference.

My name is Einar Meyer ring, I'm a start up (Inaudible) more town called Transburg, all the city and the city of the vikings in Norway.

We started our company in 2015 and I did it together with my business partner, Lashle Bista, which is the best part of our company. Different guy from me. A doctor. He is a patient guy, he is working differently like me. But it is a very nice guy.

We started, the story starts in 2014 when I was reading about

these small beacons, and they are small radio transmitters sending bluetooth low energy signals like beak consequence on the coastline. Each of them have their own unique signal and they can activate certain things in your phone if you have turned the bluetooth on. We saw there were some possibilities to use them in a good way, and we could see that there was several needs, but when we read this in the newspaper, the autumn 2015 we got our vision and our thoughts really confirmed. This is a guy who wants to have the same information when he travels and wants to find the bus when he is traveling to work, but he's not able to find it, and he asked the public transport companies why can't I have the same information as everyone else?

Some weeks ago I saw that he still is struggling with finding the right bugs p bus. He wrote on Facebook another time, another day that I went on the wrong bus. So, it's still a problem.

We saw that this could -- we could maybe solve and help him with and we started to build a travel companion app that could give the direction and the way and help him and everyone else to find

a solution when they were traveling.

When we started building this, we were working with the blind association in Norway, and we were working also with the deaf association in Norway, and we have had a fantastic time working with these groups. This sign thinking mythology has been a part of our work all the way even before we knew the expression, and we have also been supported by the Norwegian government and innovation Norway.

And finally we saw that, we also could have (Inaudible) the GI3ICT publication report from 17, 2017, wave finder, and exploration the adoption of in doe navigation with a standard user interface ITU-T recommendation F921, it tells this is the right way of doing it, and we know that giving a guidance with audio indoor navigation, we are on the right way.

We want to give everyone freedom to travel because we think by doing that we will make the world more easier for those who will be -- that is isolated and want to go to work and meet people outside the home. Technology that makes the world more accessible, we can use technology in the right way using universal standard like wave finder. And, we can build this by

using the top technology that we are able to do today. And, we know that in 2025 the Norwegian government wants that the whole society should be universal design and it's only seven years ahead, and we think it's important to start now. So, was we have done is made solutions for hubs, because we know that the first mile and last mile is quite known, but when you're coming to a railway station or an airport, it's difficult to find the gate or the next platform or the bus stop outside. That's really difficult. And, I know that most of us is struggling with that when they are attending to new places, like when I was attending Vienna, I didn't know where should I go, where was the line, where was the train? You know, everyone is struggling with that, but by bringing and giving navigation indoors, we can help them with that, and we have done really good pilots for this.

And we also saw that getting off the bus was a huge problem, because often their screens and the speakers doesn't tell the right things, and we have a solution for it, and I will show it to you shortly in this presentation.

We have made turn by turn navigation with text, symbols and

voice over. If you're not familiar with voice over, you should try. We have made map functionality with blue dot and end marker and dots in between so you can find the way and see the line if you're not using the voice over you can see the line and where you're to go, and you can search for several places that you want to find, cafe, restroom, platform, et cetera, and you can get a dynamic route suggestion. By using the voice over to announce direction if you are moving the wrong way, and you will also get rerouted if you're walking and taking another route, so that's good.

On the bus, you have some of the same functions, but you now are announced, you will have announced the next stop and the upcoming stop, and that's important, because you can prepare. And, you also can be told when to alight the bus, and that's something that everyone is thinking that is important, but if you're blind, it's crazy if you are moving off on the wrong stop.

And, you can get the message repeated by shaking the phone, and that's also important, because often the sound in a bus is quite noisy and it's difficult to hear what is announced, so you are

shaking the phone to get the message once more or twice more or three times more, and it helps the guy or the woman or, yeah. So, thank you. If there is anyone who wants to talk with me and we'll have more information after this session, please talk with me.

>> (Applause)

>> Ms. Rosheen: Thank you for observing our time factor here, and we will now move to our last speaker who is here, but then we have one remote video after that, as well.

So, we are happy to invite Mr. Turhan Muluk of Intel to talk about innovations for ICT accessibility at Intel.

>> Mr. Turhan Muluk: Thank you. Hello everyone. First of all I would like to think ITU European Commission and ALL Vienna for organizing this important forum. My name is Turhan Muluk and I am representative of Intel at ITOD, in fact I am also working at vice Rapporteur as ITU-D working group questions. Today I will talk about the Intel's accessibility policy, Intel's role, two example projects and conclusions.

As Intel, we committed to a culture of accessibility. We believe that the technology can improve the quality of people's

lives by considering accessibility during product development, Intel has designed the products that are accessible to wider range of user, including children, the growing senior population, and the people with diverse abilities.

We embrace the use of science and technology to help reduce barriers so that people with disabilities are able to perform tasks that would otherwise be difficult or impossible.

Intel is also committed to supporting and empowering job applications and employees with diverse abilities and functional or access needs.

Intel was named one of the 2018 leading disability employers by the national organization on disability in U.S. for active employing people regardless of disability. We are honored to receive this recognition and know that inclusion is the foundation for empowering all of us to do our best work; moreover, it helps us achieve our vision to bring smart connected devices to every person on earth.

Advanced intelligent networks at the smart devices will be critical components of future (Inaudible) accessible products and services. Intel powers to connected work from the Cloud to

the network to the devices at the age. 5G and AI will enable a new generation of user experiences for people of all abilities. And, in this slide you see that the emerging technologies will transform the way we access and share information with others. Such as 5G. 5G will provide the sufficient bandwidth at the low latency needed to support the large networks of autonomous vehicles that will democracies global transportation. This is just an example. It will be possible with the 5G.

Broader access for people of all abilities combined with new types of connected devices will create new opportunities for remote education and employment on a global scale.

And, for the artificial intelligence, a new generation of intelligent assistants will connect people with information using custom fit communication methods. And, the predictive anticipatory algorithms will better understand hour needs, simplifying our interactions with technology and paving the way tore new user experiences, and the augmenting reality will be one of the key applications in future and with (Inaudible) potential in retail and education virtual reality can also drive a quality in social context enabling people and groups to engage

free from stereotypes and the physical limitations. And, the augmented reality systems can provide contextual sensory details for people with sensory deficits.

And, you see in this slide custom PC Intel created for Dr. Stephen Hawkins and Intel has provided an opportunity, ability, to him to interact and to use the computer and also opportunity to obtain and to give his voice, computerized voice. And, at that, Intel made Stephen Hawkins system (Inaudible) and to anyone in the room to make the technology with a computer, an idea, and some mod motivation can develop new applications. Currently there are over 3 million people who live with motor neuron disease and quadriplegia in the world.

And, artificial intelligence. This is another example by using the artificial intelligence and innovative application. The HOOBOX robotics wheelie 7 kit powered by artificial intelligence enables people to control their mobilized wheelchairs with simple facial expression. More than 60 people in the United States are currently testing the wheelie 7 in the US.

And, I think today my colleagues, Michael, from the mobile wireless forum has also mentioned about the global accessibility

reporting initiative, but I also would like to underline the importance of this tool. Consumers can find devices with the accessibility features that work best for them and to please help drive awareness for GARI, this is a powerful accessibility resource that you can see the website address.

And, as a conclusion, Intel is committed to a cultural of accessibility. We believe that technology can profoundly improve the quality of people's lives. Accessibility is aligned with Intel's vision to bring smart, connected devices to every person on earth and enrich their lives. And, to meet these objectives, we need new solutions, such as 5G, AI, AR/VR, and we can also at the IOT mention (Inaudible) et cetera, and some policies to accelerate the implementation of this new technologies.

Thank you for listening.

>> (Applause)

>> Ms. Rosheen: Many thanks to Turhan for sharing and happy to know what the open source bit, which is quite interesting. I don't know how many people actually are aware of you providing the work you've done for Stephen Hawkins facility as an open

source component. Quite interesting component I have found.
Now we will move to a video quickly. I will ask our colleagues from UN Vienna, and would like to thank them as well. They have been here for the last two days supporting us.
So, it's going to be Madam Rose Mary Case of the University of New South Whales. She is the director of disability innovation there. You may know her since June 2018 she has been elected to the united nations committee on the rights for persons with disabilities from 2019 to 2022. Over to the video.
The question on (Inaudible) disabilities accessibility is a pre-condition for persons with (Inaudible). Disability to live independently and participate fully and equally in society. Without access to the physical environment to transport, to information, and communication, including information and communication technologies, and systems and to other facilities and services open or provided to the public. Persons with disabilities would not have equal opportunities for their participation in their respective societies. This builds on the fundamental premise of the convention on the rights of persons with disabilities. A disability is just one aspect of a human

condition. Acknowledging the disability is a characteristic of a person, rather than a problem. It marks a significant shift away from profiling social conceptualization from social disability. It reflects a deficit model where disability is viewed as an individualized problem, with honorable individuals, require care, treatment, and protection with the inner social welfare regime to deal with their special needs.

A contemporary approach to conceptualizing disability is the view disability as part of human diversity or as one aspect of the human condition. Impairments should be seen not as exceptional or abnormal, but as an infinite various but universal feature of the human condition. It has been argued that no human has a complete repertoire of ability of the physical and social environment. We are all relatively limited in some way at some time. It is this characterization and treatment of particular permutations of the human condition as disability with the constitutes someone as a person with a disability.

It is the perception and labeling of traits that do not seek comfortably within dominant social arrangements regardless of

whether those traits would be irrelevant with different social arrangements. The core of the CRPD is universities and changing the social norm to reflect human to reflect human diversity. It is a normative frame that is representative of actual lived experience of the human condition, the CRPD set standards for society where politics, policy and law need to be fashioned around a complete comprehensive vision of the human experience. It is only that through those vision that we're going to meet the needs of real live subjects and address Human Rights violations. It is only when we use normative framework such as the CRPD that embrace disability as an inherent part of the human condition to inform policy that we can achieve Equality. Towards the (Inaudible) of the current chair of the committee has described the convention of equal transformative Equality, a concept of Equality that removes barriers to inclusion and initiates structural change to respect and accommodate difference by removing the detriment, but not the difference itself. And, equality agenda that requires a fundamental transformation in the way disability is conceptualized in society. Addressing the failure of poll law 6, academia, and

industry to include the voices and experience of people with disability. The challenge for governments is for a comprehensive rethink of social structures and practices, a reshaping that embraces disability as part of human diversity. If we are to achieve this, people with disability need to be essential to the process, they need to inform the evidence-based with their expertise and their lived experience. CRPD sets out obligations on states parties to work closely with people with disability and their representative organizations to inform and shape reforms. It is through the leadership of people with disability and strong enter discipline academic research we can drive sustainable says stem I can reform for just outcomes for people with disability.

The way we understand the human condition shapes our societies. What and how we plan, research, development and build. If we seek access for people with disability, we need to change the normative context.

In 2017, building on the work of disability studies, scholars, and applied disability researchers, the University of new south whales in Sidney, Australia, established the disability

innovation institute to act as a catalyst for change. The institute is based on an inclusive model to provide a unique connection between UNSW scholars, the disability community, industry, services and government and practitioners. A world first initiative for hole of university into discipline research in partnership with people with disability. Uniquely combining disability studies with STEM in scholarship, designing accessible and exclude significant working, living, and learning environments generating innovative technologies, and creating inclusive law, policies, services and communities.

Disability innovation facilities interdiscipline disability research, and educational pedagogy that breaks down academic silos as a catalyst for violations inaccessible and inclusive practice and policy to produce sustainable change.

The model fully utilizes the creativity in innovation stimulated by the experiences of disability for accessible and transformative outcomes by gender identify, understanding and developing breakthrough solutions to practical challenges experienced by people with disability. With obvious wide application to the general community.

This research has the potential to provide accessible and in clues significant solutions to urban transport, communication, education, and health services structured around three core pillars over research, education, and knowledge exchange. The institute provides a whole of university resource to support enter discipline research and scholarship that is inclusive and fosters a culture of universal design.

The institute's research program facilitates partnerships between people with disability and enter discipline routines of researchers providing an ongoing resource to promote and improve research practice and theory through Cloud production and Cloud design by sharing and generating information about options, methods, or processes. And, the approaches. The program includes an online resource, as well as regular practice and thematic workshops. The instituteEducation programs incorporates (Inaudible) for graduates and scholars. The institute has essential role in promoting and supporting disability inclusive research practice as well as supporting graduate attributes. This reflects a contemporary understanding of building diversity and inclusive capacity.

Within foundational intellectual subjects to produce graduates, future scholars, professionals and practitioners with a whole list stick understanding of diversity and inclusive practice skills. The institute's knowledge exchange program engages with local and global decision makers in government industry, services and community through partnerships. The program will shape real advances through knowledge exchange, research translation, and interdisciplinary approaches to develop and implement universal design, to transform access across communities.

Currently UNSW scholars are working on world class disability applied innovative research in areas such as social robotics and artificial intelligence. Smart communities and environments. The disability innovation institute seeks to influence world disability scholarship providing thought leadership to the challenges and opportunities in this globally topical area.

>> (Applause)

>> Ms. Rosheen: So, we now have a few minutes, I hope, for questions, and the floor is open for questions to our speakers. Any questions? No? Yes? Please go ahead, David.

>> Audience: Yes, could I turn to Turhan's presentation. I think one of the things that I might have expected to hear more of at this conference but hadn't was the idea of augmented reality, the idea that you have a pair of glasses, let's say, and thrown up on the glasses is all kinds of information you need. I wondered what Turhan thinks. Could he tell us anything about the Intel work on augmented reality and whether it could be specifically used by people with disabilities.
Thank you.
>> Mr. Turhan Muluk: Currently, yes, you are right. At Intel we are working on augmenting reality and also on new emerging technologies and we don't have any specific focus on the current -- on the usage for the disabled people, but as I have explained in my presentation, we are developing solutions such as that we have developed artificial intelligence solution or products and one of the Brazilian start-up companies has developed a solution for the disabled people for rule 7 as mentioned, and the people can use with facial interaction.
I'm just trying to say, we are developing the products solution and any company or any university can develop specific

solutions.

>> Ms. Rosheen: Thank you, Turhan. Any other questions? No? I think everyone is very tired and wants to go to the next session, probably. Yes, I can see nods there.

So, please join me for a round of applause to our excellent speakers.

>> (Applause)

>> Ms. Rosheen: And thank you to all of you here, as well, to be here and awake and listening.

(Concluded)

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>> Okay. So, our next segment is Beyond Accessible Europe: Interactive discussion and the main conclusion, and I would invite Ms. Roxana to join me from ITU, and Amela, ITU expert, as well, to continue the conversation, and then to conclude with Yoslav on the end.

I would also ask Amela to join us now, if she may.

>> Roxana will now share the outcomes of accessible America series with us and she is the Pioneer of accessible sear owes and over to her.

>> Thank you, Rosheen.

>> Ms. Roxana Widmer: Let me tell you, a few years ago the same time of type of meeting we had with you, happening the Americas. And, I have the pleasure to make this presentation on behalf of my colleague in the region (Indiscernible) everything begin from a discussion within our usual discussion in ITU, and this was actually the moment in which accessible Americas was decided which was an objective. Of course, we were thinking that accessibility, it's an issue that is cross cutting. Countries want to implement, but do not know exactly how to do and who to do and we were thinking that would be good to begin with raising awareness. This was a simple step. And, are, then, perhaps to promote farther development, but also to recognize stakeholders efforts while doing this.

And why not sharing good practices, but also challenges. This is something that people are quite afraid to share, but are so important, and last, but not least, after a few years we also decided accessibility is not about persons with disabilities, it's about all of us. So, in short, first accessible Americas. So, Palo, Brazil, 2014. Almost 100 participants and our outcome

document were some guidelines for promoting ICT accessibility in the Americas region.

Second event was in Columbia. We almost doubled the participants, and we moved the discussion to identification from principal to more concrete implementation. We also try to discussion how stakeholders can ensure the accessible ICTs and find the difference between assistive technologies, accessible ICTs, which are really relevant to promote inclusiveness, and how to best consider Equality, equity, and affordability of this project and services.

More than this, we tried to incentivize the region in building mobile application foreperson with disabilities. And, we did. So, we follow next year in Mexico, it was accessible America CERS, and we even managed to have a regional assessment report in ICT accessibility because slowly, slowly we grew up, we new exactly who was doing what, and of course country even beginning to see of if my neighbor manage to do some steps for work, why not me. And, this was a very positive approach. So, of course we were also deciding that all these achievements, the good practices, the challenges that I was talking about, and some

references that perhaps they may wish to refer to with regard to implementation. So, we're all in a document, and by the way, all of this inaccessible Americas and you will have everything, including the presentation that were done there and everything that was talk and all the good practices in assessment that I was indicating.

In coast Tau reek au we decided formally throughout the region to not address the accessible Americas only for person with disabilities, because we realize that in equalities, multiply the disabilities. So, a woman with disability are facing a bigger disability that a man with disability, perhaps is not the right time and place to put this on the table, but that's why we consider that indigenous people, the one who live in very remote area are also facing bareers. These bareers actually do not let them access the information and communication technology. So, we, of course, had, again, mobile application content throughout the region, and of course achievements, good practices, and other achievements, another year, and again, we realize that step-by-step the baby is growing and we arrive this year just, I would say two weeks before this event, we had in Montego Bay,

Jamaica, in the Caribbean this time, and I have to say that this was one of the most rewarding accessible Americas events, because every single accessible Americas we were trying to improve to best respond to what it was request by you, the members, the stakeholders involved to consider your concern, your thoughts, your wishes, and so one of the wish was we need to strengthen our capabilities. We need to develop expertise. So, well, we develop a half-day training just prior to the event, and I will explain why prior to the event, because we realize that step-by-step we wanted to increase interactive discussion, and people do not necessarily dare to put the right question or to interact because the terminology is quite difficult. The subject is quite complex, and even if you are expert in relay services, perhaps you're not expert in procurement of accessible products and services, or in web accessibility, so we try to provide them the fundamentals in ICT accessibility, and we develop a real training, a half-day training, just before this, a certified ITU training, and we had over 100, actually 118 inscription and participants, and 90 of them were certified and trained with certificates, IT

certificates in fundamental of ICT accessibility.

Also, for young women, we tried to develop the tic tac. This is it's in Spanish. Technology information and communication. I'm trying to translate Spanish into English. And, TAC is from transform, access, and knowledge, Consemento, and this is also something that it was actually integrated in the event. And, I want to also mention about now a very successful collaboration between ITU and Samsung.

So, I'm trying to ask, perhaps, some private sector to think about this possible future collaboration for Europe, too, because now from four years, they are working with us every single year and developing this contest and we have two phases. One is an idea and a solution which is a project, and this year the winner was a young man who develop a device that person with visual disabilities can wear it, and can go whenever and wherever he wants, and this device gives him the possibility to know in realtime what is to the right, what is to the left, if he has on obstacle and was really impressing, because we had during the event of the demonstration, and I definitely think that it's fantastic. First to encourage development of such

application, and second to provide to this persons a tool that enable them to live independently.

And the second category that we have always is a solution that is already developed and available, and to see a little bit the impact and the usability and it was up with by a person from Brazil, as you see, and the proposal was calling the (Inaudible) so the wheelchair. It is fantastic. It the largest mobile (Inaudible) for accessible places with over 100,000 viewers and evaluation, and it was fantastic to see that if someone in the Americas want to go in a coffee shop, in a -- whatever place he wants to go, immediately has this possibility to know the level of accessibility.

So, last, but not least, the countries are already announcing their wish to continue and to launch the next Americas in their country, so in case some of you would like also to see the in sides in the Americas in ICT accessibility for all, the next accessible Americas it will be in Ecuador, and we already have other three countries who announced for the rest of the years, so there is a queue already to follow the accessible Americas.

Last, but not least, I definitely think that we have a lot of

things to learn to interchange from Europe with the Americas, but also to address common things that we want to standardize or to harmonize, so I also invite you all to work in implementation of ICT accessibility for person with disability in Europe, but also to keep an eye on what is happening out of Europe and perhaps in case if you may wish to consult what was happening up to now in the Americas to take the best practices that they're sharing there and avoid the challenges.

Thank you very much for your attention.

>> (Applause)

>> Ms. Rosheen: Thank you, Roxana. We now move on to Amela Odobasic who is going to present the main takeaways of was we've been discussing for the last two days.

So, over to Amela.

>> Amela Odobasic: Hello. It's nice to be up on the stage again. So, what in this presentation that I'm going to deliver now, first of all I would like to make a remark that consider this a living document, a working document. This is something that I've developed as a result of, you know, of the working sessions. Bear in mind, and be gentle, there may be typos or

some sentences that are really not in agreement, but we really had around 50 presentations, you know, and I tried to summarize them in some 12 slides.

So, the presentation is structured in the following way. In the first couple of slides I'm going to present clean messages, and then I will follow key messages, I devoted a slide per each situation to basically point out the main takeaways.

Speaking of key messages, what we've heard and what came out of key messages is that enabling environment is showing accessible telecommunications, ICTs for persons with disabilities should be established in all countries by 2023.

What we also saw was at the EU level, there is a great breakthrough has been made by several pieces of legislations, as tools for implementation of the UN convention on rights of persons with disabilities.

So, some of these pieces of legislations include EU directive on web accessibility and mobile applications for all public sector bodies, European accessibility act directive, EU public procurement directive, EU funds related regulations requiring accessibility, such as EU structure of funds.

So, the primary goal in digital in claw shun is a full implementation of the convention, in particular the ICT accessibility related provisions, as well as ensuring participation of persons with disabilities in all decision-making processes, monitoring and development of standards.

Furthermore, the key messages that I -- the messages that I recognized ASCII messages that I'm presenting here is that ICT accessibility can remove barriers that persons with disabilities are facing. Furthermore, ICD products and services should be accessible and affordable. Accessible ICT are re-economic inclusion and persons of disability and essential for their independent life.

Key steps to achieve ICT accessibility require national policies and legal frameworks, development of standards, create accessibility, experts, raising awareness, sharing good practices and ensuring the implementation.

All stakeholders are encouraged to engage in the regional and global activities advancing ICT accessibility, including ITU regional initiative for accessibility in Europe, ITU digital

inclusion program, ongoing technical standardization in ICT accessibility, effective application and implementation of EU accessibility legislation, which is available as a model for other countries. Accessible Europe should continue acting as an open, multistakeholder platform involve all the relevant stakeholders to avoid possible duplications and foster innovation and regional implementation in line with a convention contributing to achieve the SDGs.

So, now I'm going to move to Session 1. The Session 1 was about international Europe region, European Union vision targets and actions and key resources to support ICT accessibility.

What we've heard from speakers is that the European Commission has in place concrete legislation, guidelines, and standards that are available to support the implementation process.

Advancing with key legislation to ensure accessibility and achieving Equality. We do have pieces of legislation that includes European accessibility act, web accessibility directive. The electronic communication code, the directive of our division media services, public procurement directives and EU fund regulations.

Leveraging available ICT accessibility standards. It is important to leverage available ICT accessibility standards. Key ITU resources that include guidelines, model policies, training courses, video tutorials on how to develop accessible digital content, program on web accessibility, working platform through study group on question 7 are available to support stakeholders implementation of ICT accessibility. Furthermore, the implementation requires a proactive involvement of telecom operators in ICT accessibility, and finally, the opportunities were recognized and recommended to be used that are provided by gigabyte technology as a game changer, plus in the 5G environment.

Now less move on to the Session 2. The Session 2 was about our outline, examples of accessibility, legislation, regulation, standards and EU member sites, and outside of Europe.

So, as conclusions, I am just pointing out a few bullet points here, and that is that there is a multiplicity of ICT accessibility legislation and regulatory frameworks. Development of legislation should be more timely to keep a pace that is technological innovation. It is important to create and

acknowledge ICT accessibility echo systems.

The importance of adequate monitoring of ICT accessibility as well as measuring impact on persons with disabilities was emphasized.

It was also stressed that use of universal design helps to achieve accessibility. And, also, it was emphasized that it is important to incentivize the industry.

As far as Session 3 is concerned, the title was in stock taking implementation of accessibility in the assistive technology in Europe. It was, as main takeaways, I point out the following.

Assessing and promoting accessible features are key, by inclusion of persons with disabilities.

Accessibility is relevant in social networks.

Key elements are feedback from users, including again persons with disabilities, as well as research, design, engineering, and at owl roll out levels.

Artificial intelligence is a powerful tool, as it becomes more available, accessible, and affordable.

ICT accessibility is essential for the inclusion of persons with disabilities in the work market.

And, finally, training of IT professionals inaccessibility is essential.

Session 4 was on web accessibility, regulation standards and resources.

Accessible websites generate economic and social benefits.

Measures to ensure compliance with the EU directive on the accessibility of public sector websites and mobile applications are available, such as feedback mechanisms, on demand provisions, enforcement mechanisms, training, awareness raising, and stakeholder consultations.

Making tools that support users visible is very important.

Two drivers to achieve accessible websites are identified as: Creation of capabilities and raising awareness.

ITU's national program Internet for all was pointed out as a good practice that include not only the creation of capabilities, but also political buy-in.

Now let's move on to Session 5, which was about audio visual media services, TV and video programming.

It was stated that the directive of audio visual media services requires member states that service providers provide

accessibility obligations include reporting to national regulatory authorities, reporting to European Commission, obligation to have accessibility action plan, to have a line contact point, as well as to make emergency information accessible. TV accessibility applies to all forms of TV and video programming.

The need was expressed to have accessibility eye can standardized and audio subtitles. It was also stressed that it is very important to strength the collaborative approach in business benefits of access services as well as and create synergies between the work of ITU and European Commission.

It was also stated that artificial intelligence can be used in the object based broadcasting to learn about users viewing habits and tailor how programs are delivered to them based on the requirements.

We also see that providing subtitles for hundred percent and described up to 20% of programs is feasible. And, it was really reiterated that standards do matter only if editorial guidelines require accessible production.

As far as the Session 6 was concerned, it was about the

procurement of accessible ICTs and universal designs, and I'm going to now present the main takeaways from the Session 6.
Public procurement is a big market we've heard. Public procurement is a powerful instrument in ensuring accessible ICT.
Legal framework on public procurement with accessible provisions is available in the European Union.
Accessibility provisions relate to technical specifications, quality assurance standards, award of contract and public oversight.
There is need more meaningful data and monitoring of systematic use of accessibility requirements in procurement.
Again, the strengthening of collaboration was emphasized at all levels, including the UN, the EU, as well as national levels to include decision makers, politicians, procurement specialists, academia and organizations of persons with disabilities.
So, Session 7 was about implementation of equal, not evil, equal access in telecom.
So, the European code on electronic communication helps shaping the right environment for digital networks and services to be accessible. It promotes connectivity and access, stimulates

sustainable competition, drive investment, reinforces internal market and strengthens consumers right. There is a need to raise further events about accessible features in telecom devices, and it is important to enhance availability of accessible information about products and services, the features and components.

Session 8 was about telecom relay services, practical experiences, challenges and opportunities.

So, we've heard that it is important to ensure that persons with hearing or speech -- persons hard of hearing or with speech disabilities have access to telephone relay services with equal functionality, collaboration with stakeholders, including the government and disability community is necessary. Relay service considerations includes network, confidentiality and security and communication assistant, emergency call outreach, speed of answer. This is probably the presentation that I submitted maybe the wrong one. Call processes and end user agreement. I can see that Andrea would like to intervene, but may I just before I move on, just to say that this is going to be, I'm going to edit this, okay, just to make it clean and neat, and it

will be provided for your comments in online version. Okay.
So, in the Session 9, the speakers discussed about innovation in good practices and implementing ICT accessibility, products and services for persons with disabilities. It was stated that sharing with practices and fostering (Inaudible) engaging innovation is very important.
(Inaudible) practices in ICT accessibility including standards, manuals, toolboxes, competent centers, co-creating content platform orientation, map, are -- it's important to implement them.
Studies have shown the value of promoting the diversity. Developing products and services facilitate cutting edge mobile and communication technologies. And, that would be the main takeaways that I really wanted to present as a result of these nine sessions that were held.
As I said, consider this a working document, and I understand Rosheen that this is going to be offered to the participants for comments until certain deadline, I suppose.
>> Ms. Rosheen: Yeah, it will put on our website for comments, and Andrea wants to talk, but it is going to be on the website

for comments.

So, I will give you the floor --

>> It will be five seconds one of the best outcomes for my session with the relay services that we have the opportunity now with the ITU working directly with the European Commission and that I think is a wonderful outcome about standardization. If you could add some wording to that. And, that is one of the most important outcomes of the entire session n my opinion.

>> Thank you, Andrea. I would like to mention that there is going to be the report, this is going to be (Amela) the report of the whole of really providing a more information on the sessions. There was so many brilliant outcomes, and you know some very excellent conclusions could be drawn, but this is really, as I said, in the working environment what I came up with for now.

Okay. Thank you very much for your attention.

>> (Applause)

>> Ms. Rosheen: So, now we go to the next path, unless you have any comments right now. I will invite Mr. Jaroslaw Ponder to lead the conclusions of today.

Please. Ladies first, of course. So, let's move.

>> Good. So, I will try to dedicate a few words, although I know that you know we're all very tired, it's been really a couple of very interesting days for those (Inaudible) the program was really intensive, and but thanks to that, we managed to have really quite a number of useful learning outcomes out of this event.

I'm really impressed about the richness of the initiatives for implementing ICT accessibility that we have seen throughout these two days at all levels from research and practical implementation training, practical applications, and but what I think for me was emerging from the presentations that we have had is the level of maturity that we are reaching on ICT accessibility. It is not anymore point trials, but it is really now we are at the stage in which we are passing to the deployment of these solutions.

For us, it was very important to be here and share with you the efforts that we have taken in the last years developing European legislation, and well, we tried to make a call for all of you to help to contribute to the implementation of this legislation in

the EU, but also to be sure that this legislation is available outside the EU for acting as a model or as an inspiration for taking measures outside the EU in the bigger Europe.
I have to say that after many years, more than 20 years working in this area from different perspectives (Inmaculada Placencia Porrero) today when putting together all these work I had the feeling that, well, now we have that political and legal framework in the European Union to make ICT accessibility a reality. We have achieved a lot together, and now we need to go for the next step. I mean, having this policy framework is not an objective or is not the goal in itself. It is just the start of the new era where we need to make sure that now we really use it, we use the frameworks, we build what has been called in these frameworks, and that we manage to get what has been repeated several times in this conference referred to as the accessibility ICT accessibility ecosystem, yeah. We need to complete that ecosystem. We've seen that we need to invest in training of professionals in developing standards and harmonization in raising awareness in providing access inch information about accessibility features in products and

services, and we need finally to have those products and services really being fully accessible, but most was we need to do is to ensure that that is ICT accessible technology reaches persons with disabilities. And, I'm really happy to close by saying that we are able to -- we have set up a collaboration that allows us to explore how we can continue to advance in this journey together. So, thank you very much to ITU for having put this initiative together, and having invited us to join in this journey and thank you to you all for having been here and contributing to this two interesting and successful days. Thank you very much.

>> (Applause)

>> Jaroslaw: Thank you very much, Amela for these very warm words. Very nice feeling, but also I think I believe that is very nice feeling for all stakeholders who are working with both our organizations and now they find this platform as the possible way forward for the future. Of course, thank you very much to you. I will not enter in the content as you were very exhaustive in these terms, but let me thank also to UN Vienna for most go us, thank you to all partners and exhibit terse in

reaching the content of this forum.

Of course, one more time congratulations to all winners of the contest, which I believe was the first edition, but to the good initiative which in the future I will throw attention of many more innovators and we hope to identify much more, and not only recognize them, but also promote them and facilitate their further innovation journey in becoming the solid reference point for Europe, but also for the other regions. This is the beauty of the collaboration between our organizations focusing on the regional aspects, but on the other hand promoting our European pride of innovation and to the other regions.

Of course, accessible Europe is an open platform as we are stating from the beginning. It's coordinated by our -- both organizations, but it is open for the partnership, and we hope that following here we will have many more partners bringing not only the participants in the communities, but also the issues to be discussed.

So, therefore, please spread the news, and the next accessible Europe will be held in the second half of the 2019. We look forward also to the sophisticated venue of this event. Of

course, we're always happy to be in Vienna. Vienna is beautiful, but in case there is somebody who is claiming to be more beautiful, please prove it.

>> (Laughter)

>> Mr. Jaroslaw Ponder: We will assess. (Laughter). Of course, this was a joke. We will find, for sure, somebody who is committed enough to show not only the nice premises, but also the quiet leadership, good leadership in the field of the accessibility.

Ladies and gentlemen, with this, I would like to one more time thank also my colleagues who are working a very hard, it includes Rosheen, Carol, Roxana and also Andrea, Amela, and other colleagues from the ITU. Not to the mention in the whole team of the European Commission, which was day and night available, and for us, and working hand in hand doing this, what was happening.

Of course, my sincere thanks are going also to the interpreters who are very patient with us and in particular with me.

>> (Applause)

>> Mr. Jaroslaw: This was new experience for me at least, and I

learned a lot. And, also sincere thanks to the captioners who are with us.

>> (Applause)

>> Mr. Jaroslaw: This is the beauty of the digital world that are sitting elsewhere I believe, in Canada, so greetings to Canada and thanks for making the words accessible.

So, one more time thank you very much.

Before I declare the event closed, just a small announcement. As you know, tomorrow we have the very informal set up, and this is the time for making the business, and for making the bilaterals and making some ideas fly in transforming to some cooperation between the people. We will start this exercise from 9:30. Please note that we will be meeting in room M1, and this will be the networking space.

>> 1 is here and 2.

>> Mr. Jaroslaw: And 2 my colleagues are saying.

So, yes, indeed. So, thank you very much.

We are looking forward to seeing you, as I said, it will be not the conference, it will be just the informal set up to discuss bilateral basis in small groups and whatever part we could just

exploit, and the possibility of interacting face-to-face.

So, the last point, the special thanks to our UN Vienna colleagues who are over there and who are also working with us.

>> (Applause)

>> Mr. Jaroslaw: It was a great pleasure for us to make the history first ever ITU meeting hosted by the UN Vienna, so it is a really great pleasure for us, and we hope that it will be much more often here back, and I with this I would like to conclude the meeting and declare the meeting closed.

So, thank you very much.

>> (Applause)

(Concluded)

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