**M-Enabling Australasia 2013 Conference**

**Day 1 – The international perspective: 9:35 – 10:15am**

JOHANNA PLANTE: Now, I'm going to hand over my chairing role to Scott Hollier, who is going to moderate or chair or whatever we call it for the next session. I'll leave that all to Scott, who is now coming up to the lectern.

SCOTT HOLLIER: Good morning, everyone. It is absolutely fantastic to see so many people here at M‑Enabling Australasia 2013. To briefly explain the organisation I represent – Media Access Australia is a not‑for‑profit organisation dedicated to assisting people with disabilities. We look at access across a range of media including cinema, TV, DVD, digital and online media, and education, and we are going to be a catalyst for change. It is my absolute privilege and pleasure to introduce Axel Leblois, president and executive director of the global initiative for inclusive ICTs, G3ict, an advocacy initiative of the United Nations. Axel's bio includes a range of things – some of the highlights of that – Axel has worked for 20 years managing various ICT companies and organisations, including computer world communications. Axel has an MBA amongst many other qualifications. He's done a lot of work with the UN around research and training. I found out recently he's also an avid sailor, so he's a man of many, many talents. In terms of Axel's presentation today, he's going to be looking at the international developments around technology and accessibility, particularly as it focuses on people with disabilities and older people. I've had a sneak peek at his slides. I know we're in for an absolute treat of a presentation coming up. There will be a Q‑and‑A session afterwards, which I will moderate. At this point, I will track down a seat, and I would like you to make Axel feel very welcome. Thanks very much.

(APPLAUSE)

AXEL LEBLOIS: Thank you very much. Good morning, everyone. It's a fantastic opportunity to be here this morning to advise you at the first M‑Enabling conference in the Southern Hemisphere. I'd like to thank our colleagues from ACCAN for making this possible. It's a wonderful kind of transformation or initiative going to Australia.

For many years, I've been involved in the computer industry. Each time we have international comparisons, we always looked at Australia as an early‑adopter market, the kind of advanced market test for the rest of the world. In terms of looking at M‑Enabling technology and services, what we'll be discussing here today is the same as always in the IT industry – a kind of preliminary finding on what will happen in the future. So I'm very pleased we have this conference here today.

This morning, I would like to start on M‑Enabling around the world. My focus will be on international experience. I'd like to do three things. First of all, to tell you about the scope of the user around the world, people with disabilities, and the senior market. I'd like to tell you a bit about new technologies that are coming up. And then to give you a few examples from Europe, the US and Japan as to how things have developed. With that, I'd like to give you a quick introduction as to why we do M‑Enabling and why we are involved with this program.

First of all, our organisation, G3ict – the global initiative for ICTs – was from back in 2006, just prior to the vote by the UN General Assembly of the text of the convention on the rights of consumers with disabilities. As you know, Australia has been very involved in that process. One woman you saw in the video earlier was chairing the committee on Geneva for the past two years. Australia has become very much a leader.

Our initiative from the start was designed because, when the convention on accessibility was developed, in the negotiation process for the text, there was an article included on accessibility, article 9, which, for the first time in history, elevated ICTs and other accessibility to ICTs on par with accessibility to the transport environment. From a legal standpoint, all around the world, all the countries which ratified the convention, have to provide the same environment as the physical or transportation environment. That, of course, was a seachange for the industry and a whole organisation of people who use technology every day. The whole process was to ensure that an initiative incorporates industry, governance, we will be able to actually make sure that this position is known, it is actually applied, and the providers were the best practices around the world. In that context, we announced M‑Enabling. It's having an extraordinary effect on technologies in the marketplace. To state very clearly what's going on here, our organisation is from the private sector and from advocacy accounts. So thank you very much, ACCAN, for taking the responsibility up today.

Why M‑Enabling matters – we have 1 billion persons with disabilities around the world. Two‑thirds have severe disabilities. 80% of those live in the developing world. About half of the persons 65 years or older, on average, live with a disability. It's the fastest‑growing segment of the population in the world today. It's something many countries are very critical – their demographic change. But we should not forget, by the same token, that disability affects all age groups. In the United States, where I've been living for the past 27 years, the Department of Education very carefully identifies those who have special needs. Today, there's 13.2% of the student population who live with a disability. A third of which are touchstone disabilities.

In the US and Australia, if you look at the global tables, you see that both the US and Australia are about the same range. The US is about 17% of its population living with disabilities. I see that, in Australia, 18.5% of Australians live with disabilities. In the US, which is again the market where I most know, about two‑thirds of the population lives with a severe disability, which in terms of user information and commissions technologies, it means that they have various access services that most people use every day. In fact, about a third of the families have a member with a disability. It's a very significant scope. When you talk about M‑Enabling, you are talking about affecting very, very significant portion of the population. To follow up on the commence from Mr Hollier, I would like to add one thing. In the United States, 91% of the households, there is still about 30% of the households who could buy broadband who don't buy it. When you look at that particular segment, the FCC – which Karen belongs to – did a survey three years ago to see who were those who were not developing broadband. In fact, when you looked up those numbers, close to 40% were persons with disabilities. In the UK, the same survey was conducted – 50% of the persons who did not adopt broadband in the UK are persons with disabilities. So it gives you a glimpse as to what's going on here – that there is a real exclusion issue from technology users and people with disabilities.

Why it matters – a lot of attention to M‑Enabling and mobile technologies. It's of course of use, but that's one of the characteristics. It's anywhere, any time for communications. It's the largest‑ever installed base of technology. Application services exist for all kinds of services, also from a technology standpoint. Most importantly, the size of the market – and it's global in nature – allows for a tremendous economy of scale, which has never existed before in the industry.

If you look at the upcoming high‑level meeting of the General Assembly of the UN in September, we did a survey jointly with our partners, the ITU and UNESCO and others to see what were the main attributes of the strong technology sectors in relation to that whole issue of disability. Mobile, of course, was identified as an essential tool for accessibility around the world in most domains.

In terms of numbers – you heard the numbers before, so I don't want to emphasise that too much, but worldwide this year, the IT U, the international technician union, estimates 6.8 billion people – that comes from 2.2 billion from 2005. In eight years, the user base of mobile phones – it's, on average, one phone per person in the world. In many places, people have several devices. So some people have none.

In terms of Australia – this is important for the scope of this conference here – the internet access for mobile is high. The percentage of people that use mobile phones to access the internet – Australia ranks among the top countries in the world, with 82.7% of the population. That means everything we talk about today in the conference has to deal with access to the internet. It's very important because of the number of services, the number of possibilities, including the cloud, that will change over the coming years.

Some of the questions we ask to M‑Enabling committee in the US – what are the applications you think are most important? We use a 1‑to‑5 scale. As you can probably imagine, a number of competing application areas come up. In order of importance, emergency response is 4.6. Health scare is 4.4. Education is 4.3. Independent living is 4.2. E‑government services is 4.1. Travel and tourism – 3.8. That means that, on a scale of 1 to 5, you have a number of applications where mobile seems to be seen as absolutely critical for persons with disabilities by the team that puts the M‑Enabling pool together, like Karen in the room. Those persons are coming from industry, various disability organisations, and the public sector. So it's a mix of perspectives.

There are lots of innovations. Today, mobiles are embedded with a number of new, popular systems and smartphones. You have text‑to‑speech capabilities for persons with visual impairment. You have Video Relay Services with sign language for persons with hearing loss. You have peer‑to‑peer video for sign‑language for those with speech impairments. Voice recognition for controls and menus for those with dexterity issues. You have icon interface, which is helpful.

This is becoming mainstream. One thing I would like to say here – for the first time in my entire life in the industry, I see that major vendors are competing for accessibility. That is because everyone every day who uses a smartphone, living with a disability or not, is going to encounter an instant of disability. For example, you can't see your screen, or you may be in a meeting and you can't have sound coming out of your phone. You need to have an alternative solution. Or you may be hiding in a place where it's forbidden to hide and call at the same time. You need to populate your phone with text. Those features, so important for people with disabilities, are essential for most users today. That's why you see such competition and why you see IOS and Windows competing for the best accessibility features. There is a way now to make a business case for better accessibility for everything. I call it the i‑phenomenon. I can see, this year for the first time, the M‑Enabling service in Washington, we had the consumer electronic organisation sponsoring the event. Why? Because they see the potential for that i‑phenomenon that comes up in the mobile industry to spend all of your electronics and consumer goods. Why would a microwave oven not have voice contours, since it will be so cheap because it's becoming digitised in the mobile industry? I think you see the picture – it has a profound effect on everything. There are a lot and lot and lot of apps and services that leverage what I call embedded features and technologies. So you have handset features which can be very, very powerful for applications. You have populating features. For example, you could have scanner capabilities, G P S, near‑field communications to control portal sales or ATM device. But you could also have remote services – for instance, a cloud‑based service for people with disabilities, emergency services, digital libraries where you can download books on mobile devices. All those things are now fully leveraged by a lot and lot and lot of applications. You know many of them. Some of them are exhibited outside the room today, which is great. For instance, here is one from the adware marketplace. It's called CapturaTalk. Optical character recognition and text‑to‑speech technology. You can take a picture of the text. The centre for excellence for the IUS – you marry the GPS mapping capabilities and the text‑to‑speech capabilities of the handsets. In that case, it's a great service to people who need orientation, and especially people with vision loss. It's that combination of different features in those high‑end handsets which is revolutionising the way mobile and technology can serve customers with disabilities.

A couple of years ago, Australia was part of the creation of the GARI database. Michael from MMA, if he's around today or tomorrow, will probably address the conference, but that has been a very useful database that allows users to select, based on their location, the type of functionalities they need to see what handsets are available in their particular location.

Let me go to the next step and tell you that this is beautiful, this is kind of a dreamland in some ways, but the reality is that, despite those solutions, they aren't reaching a lot of persons with disabilities around the world. What we do at this stage – once a year, we partner with disability people international, and conduct a survey of countries to see how much the G3ict actually implements and how effective are those implementations. So we collect 57 data points for all country. All our questionnaires are field, but not by the government or industry. From that story – last year, we had 52 response. We see that 70% have actually no program or policy to facilitate the use of telephony by persons with disabilities. You are here in Australia, and you had such concerns for many, many years. It may seem extraordinary to you, but more than two‑thirds of the countries have no policies or programs at all for telephony by persons with disabilities. 69% have no policies or programs in place for mobile accessibility specifically. When you consider the impact that mobile is having in many countries around the world, where people have access to mobile but not to fixed lines, it's a real concern. More precisely, 53% reported they don't have very accessible handsets available in the country. That is a factor of economic issues, the availability of handsets, and simply because quite often service providers who procure those handsets have not a clue on what's necessary to provide those services. The last thing is why a third of the countries – 37% – do not have a screen reader available for the national language – meaning two‑thirds of them have one. 81% of those countries do not have screen readers, for instance, for minority languages. It's a major issue around the world, because you can have the best possible assistive technologies. If you don't have those underlying technologies such as speech recognition or text‑to‑speech in a specific language, you are out. There is no way to make it work. One of the advocacy things we try to push right now is to say, "Look, service firms around the world should dedicate some money to assist the private sector to develop those phenomenal tools to make them available to all potential users in those countries."

M‑Enabling – where we are today – is meant to promote solutions for seniors and persons with disabilities, and to share technologies, processes, policies and business models that make it work. One thing that's so important and is working very well – I can see it here today – is that, without the participation of all the stakeholders, policymakers, but customers with disabilities first and foremost, in the private sector and all aspects of civil society, it cannot work. It is fundamentally a space where coordination is essential. Every case of a success story around the world has, as a foundation, a very strong collaboration. Karen will speak tomorrow, but she will explain to you how the 21st Century Communications and Video Accessibility Act of 2010 in the United States was designed and how it's implemented through rule‑making. It's all about collaboration between third parties. If people do not own the solution, it is not happening. All those segments are critical. I'm so happy that here in Sydney, we have all the signals of the stakeholders, which is wonderful.

Let me go to three particular case studies. We'll tell you what has happened in those countries and how it happened. I've developed some common lessons from their experiences.

I picked Japan, the US and France for different reasons, as you will see. The first is the Raku Raku story. Anybody seen Raku Raku before? Alright! I've got two Raku Raku fans. That is great. It's a quite big – it's actually a mobile phone. It means in Japanese – what happened there is, back in 2002 – that's a long history now. It's a 10‑year‑old story, so it's well‑documented. We have all the statistics. It's public domain. We have a link on our website if you want to look at all the details. At the time, NTT DoCoMo – there are three main carriers in Japan. They had 51% market share of Japan. At the time, 81% of the Japanese people had a mobile phone. They could not find a way – there was a market saturation. They a couldn't push further to advance the number of users. The more you went up in age, the least you would be using a mobile phone, which is managed very carefully. They have 90% implication of people aged 20 to 50, but less than 30% of people over 70. They saw, OK, we have a terrific opportunity. It was market‑driven, it was business‑driven. They looked at a market opportunity. They decided to actually adopt a very strong kind of break in the traditional ways of doing things by reminding themselves of universal design principles. They were designed not only for handsets, but very carefully for sales and services, for stores – for everything we do with customers, so that everything we do is accessible by everyone. With those principles, after now, of course, 10 years, they sold 20 million subscribers, new subscribers, as part of the climb. At the time when we had the first survey in 2009, we had a raise of 15 million units. Those numbers are astounding. If you look at the population of Japan, it means that DoCoMo has 70% of the senior market now in Japan. If you are an operator, the cost of setting or marketing, selling and servicing those customers may be a bit higher, but the level of loyalty of customers is much higher. A bit harder to require the customer, but actually a much less churn, as you would say in the industry, when people lose those subscriptions. Financially, everyone would tell you this was a very efficient move by NTT DoCoMo, entirely market‑driven. I want to emphasise this. Those stats were collaborated also by the statistics of the Minister for Information of Japan, which makes a survey of the users of mobile phones in Japan. At the same time, you see the number of mobile phones triple. The principle there was simple to think about, but as we will discuss later on today, the devil is in the detail in terms of execution. That's where I think, in many places, we have to look at.

The second case I'd like to mention is AT&T in the US. Again, they're a company that adopted for, the same reason as NTT DoCoMo, but also because of the regulatory environment and universal design principles. One thing that I thought we'd emphasise with you today is that AT&T put together the AT&T Accessibility Pattern for ageing and access, which is comprised of all the major disability organisations in the US. That committee overseas, the company meets regularly once a quarter. They oversee or ask questions to any aspect of the country. They also are concerted for new border clients. For instance, the breeze phone – the equivalent of the Raku Raku at AT&T, was designed on that committee. It was a major market success. The company also does a lot of very specific focussed marketing by the disability segment, which has specialised customer service, has specialised marketing. If you want categories of users – in a way, I think quite remarkable in terms of its understanding of the needs of the disability community. As part of their plan, just to give you a sense of the effort, AT&T realised it was very difficult to get high recognition, to embrace accessibility policies and tactics. They promoted to customers with disabilities in which 160,000 employees took a course with an exam – pass or fail. That gives you a sense of the size and magnitude. When we talk to governments around the world, I have not seen one government in the world having done such a large‑scale training effort for employees on disability around access and disability. Those numbers, of course, do not reflect the same type of success of NTT, but AT&T did not have the option to share in such numbers, which they would like to do anyway. But I can hear that having the focus on accessible features has been very, very positive for the company.

The third case I'd like to mention is the case of France, where, back in 2005, there were lot of pressures from advocacy initiatives and disability organisations in the country to do a better job from an accessibility standpoint for mobile phones. Instead of going state to the regulatory way, the government and industry and mobile operators

UNKNOWN SPEAKER: Together with customers with disabilities, set an inquisition process. More than that, it was a task force to design the hallmark for the implementation of design accessibility. Essentially, a whole set of features had input from customers with disabilities on necessary features, comfort features, desirable new features, and a requirement for marketing codification, of accessibility features, to the barriers who knew what they were buying when they were buying a phone or service.

Each operator had between 10 and 20 accessible handsets. With accessibility figures, one operator – the smallest one, actually – found that they could not easily, because of a lack of scale, organise that properly, so they did something very innovative. They had one of the organisations with disabilities to do their own outsourcing company to service customers so the persons with disabilities became the provider of service for their mobile phones. There are multi‑model options for those who are speech‑impaired or deaf customers. By 2010, they had 193 specialised points of sales. That meant they were accessible in physical as well as communications. As a result of all that focus, and the fact that more and more persons with disabilities started to actively purchase services, a new mobile service was launched with sign language and a lot of options for persons with disabilities, facilitated by the whole organisation. I think an interesting perspective of collaboration which shows the power of finding a solution together.

If you look at those three cases, there are some common factors. One is, of course, universal design strategy. That's a clear common denominator among all successful marketplaces. The participation of persons with disabilities involved in the process of policymaking are for implementation and, as you saw in the case of AT&T, and you would most likely see at NTT DoCoMo and others, customers should be involved as engineers and marketers for service providers to maximise effectiveness.

What do we do right now to try to make it even more enabled? G3ict works with different agencies, but for this particular sector, we work a lot with ITU, international technical union. We did an online tool kit for policymakers back in 2009, which is getting quite a bit of interest from around the world. In 2011, we published a report that summarises all the solutions we adopted by mobile service providers for persons with disabilities. This year, we are developing a policy for the convention, which incorporates some of the practices we have observed everywhere. That's governments who are interested to speed up the process, connected with users for the platform of discussion in countries. In cooperation with the ICC and ITU, we attend international conferences such as this one, held by ACCAN. With ITU, we try to measure what's going on through the annual report. Again, before I close, I would like to tell you what's so important to us is that, in Australia, you have a significant opportunity for innovation. As you saw before, you are ahead of the curve in adoption today for mobile, mobile internet access, and human rights and disability accessibility standpoint, Australia is also a leader from the past few decades. I think a combination of those factors make Australia a very fertile ground for innovation for mobile accessibility. I think if you look at the global marketplace, solutions that you perhaps can generate or initiate in Australia, may have a good deal of potential. Beyond your own borders, I think there is potential for an active community here in Australia. I think the fact that the private sector and policymakers and industry and everyone who is involved makes it a very likely outcome. In conclusion, I would like to just always remember why we do these things. I thought I would leave you that quote from Dr Zhang Xu, the director of an organisation in China who is himself a quadriplegic. He says, "If anybody asks me what the internet means to me, I will tell him without hesitation – to me, a quadriplegic, the internet occupies the most important part in my life. It is my feet that can take me to any part of the world. It is my hands which help me to accomplish my work. It is my best friend. It gives my life meaning." Thank you for your attention.

(APPLAUSE)

SCOTT HOLLIER: Thank you so much for that presentation, Axel. I think sometimes in Australia, it feels like our technology takes a little bit longer to get here and it seems to cost a little bit more than in other places. What you've highlighted today is that there are so many global issues – screen reading languages for seniors. It's wonderful that someone like you is at the helm to address those issues. We have time for a few questions. Being vision‑impaired, waving at me probably won't work so well, but I would encourage you to grab a roaming mike as it goes past, and please ask Axel a few questions. Thank you.

UNKNOWN SPEAKER: Hello. Frank Nolan. Just firstly like to thank you for an inspiring speech. As Scott said, you didn't disappoint on that promise. Particularly pleased to hear your emphasis on the fact that a lot of the accessibility to digital technology, including M‑Enabling, is coming from the kind of dual usage of things like voice accessibility through speech, the general community has also for things that help us. There remain, however, areas of difficulty. For instance, for blind and vision‑impaired people in accessing the internet. Stemming from the fact that screen readers, which we are forced to use, are not able to read all websites very well, largely because the websites are not designed in a suitable way. A particular difficulty, of course, is with graphics, but there are other difficulties, which could be overcome with formatting. I guess I'm leading to a question of, given the advocacy role you're involved with, how can we best direct our advocacy efforts towards overcoming this very big stumbling block?

AXEL LEBLOIS: Thank you for your question, which is very important. In fact, part of the equation is, once you start to access the Web, contents and services must be designed to be accessible. That brings up the whole issue of the lack of Web accessibility around the world, which is a tremendous barrier in many ways. Let me maybe expand on that a little bit. First, there is now worldwide evidence that, for whatever unfortunate reason, even governments today don't design their websites in an accessible format. I don't have numbers for Australia. I know there is a government program to make sure websites are accessible and it's great to know that. I hope that I will be able to know about it when I'm here in Australia this week. But I would tell you, in Europe, 95% of the government websites aren't accessible, meaning they're not compliant with Webcat 2.0. It's a significant issue. When you go to the private sector, it's even worse.

There are a couple of issues here. One is, there is a lack of complete timing among IT professionals about accessibility. Let me give you an example. Again, I don't know about the specifics in Australia, however, in the United States, if you want to be an architect, you need to have a degree to be an architect. From an engineering school of architecture. At this time, you could not pass your degree, you could not get your degree, without having passed an exam on physical accessibility. It's a compulsory course, a compulsory exam in your curriculum. You look at computer sciences masters – none of them – none of them – have a compulsory course on accessibility. Very few of them have any course on accessibility, for that matter. So we are training – I think the number is 700,000 – computer engineers a year, worldwide. I would tell you, out of those 700,000 new engineers every year, almost a handful has any kind of training in accessibility. So one of the first issues you find is whether you are in an industry with large IT user organisations. They don't find a qualified person. That's a huge issue. The number two issue is that anybody who looks at the WCAG guidelines – if you spend the time, they're easy to understand. Very well documented. There is a great website from G3ict Web accessibility initiative. You have folks who aren't contactable on the internet. They aren't going to take the time or understand to do that stuff. The issue here is that development tools, editing tools, are not embedding accessibility for them. There is an Australian company, for instance, Infox, who has a product where you can actually see the flagging of your errors, accessibility errors, as you develop your page, which is fantastic. But not too many companies adopt it. It's a conundrum, a very difficult thing. That's a negative aspect. The positive – if we are smart, as advocates, if you look at the WC3 mobile specs for contents and the WCAG 2.0 guidelines, they are 80% overlapping. So today, a company that really wants to be present on the mobile Web, they are already actually adopting 80% of the WCAG 2.0 guidelines. The (inaudible) is not much. In terms of strategy, I think everyone should be promoting this fact – once you have adopted the mobile guidelines for your programs, it's not a big deal to make your point accessible. We need to serve on this, we need to push. And we need to be very, very – I will not say aggressive, but very demanding.

(LAUGHTER)

With government websites. I think in Australia, you have one hole at this time – you do not have a public procurement policy at the government level for ICT accessibility. You need to have one. That's my recommendation.

SCOTT HOLLIER: Thank you, Axel. We probably have time for two more questions.

UNKNOWN SPEAKER: Hi. Thank you very much for that inspiring talk. It was terrific. My I work for Inclusive UX. I've been doing some work with the W3C over the last few years towards mobile accessibility standards. It follows on a little bit from what you were just talking about there, which is we do have the Web content accessibility guidelines, which were developed around browser‑based capability. There still are not universally accepted mobile accessibility guidelines. It's a very challenging area, as I've discovered with the work I've been doing with them. And the pace of the industry, as well, is so fast that getting guidelines written, reviewed, accepted, is extremely difficult. The thing I participated in was in the middle of last year, and we're still working on the minutes!

(LAUGHTER)

My question is to you is, what work are you doing with the W3C to get guidelines out there that everybody can point at and say, "Let's do it like that"? The BBC has pre‑empted and are putting out their own accessibility guidelines, which are terrific. But we need it from that body like W3C so that we have something that people who want to talk about the Disability Discrimination Act can point to.

AXEL LEBLOIS: Thank you for your cooperation and experience. I think what you describe is very accurate. There is a cycle which, by nature, has to be consensus‑based and takes time. And technology is moving fast, so sometimes you get consensus when it's already obsolete. We have to be very conscious of that. In terms of the mobile accessibility guidelines, I think the first country that issued somewhere, the South Korean government, they issued guidelines for mobile government applications. At the time, we had a talk about that. We pushed very hard in a very friendly fashion and said, "Look, the most of the possibilities to W3C may not be experiencing mobile access to the internet because they don't live in countries where that's done." But in Korea, they're number 1 in the world in mobile access. No wonder they're asking for mobile guidelines before you even see they are needed. That's the experience over there. It's not because they want to do something different – they just need it. That happens. The BBC initiative – I saw that very clearly. We had the panel on that topic at the summit in Washington in June. It's a tricky area. If nothing happens quickly, it may be fragmented. If fragmentation occurs, it's a source of a lot of issues that makes things much more difficult. So I could not agree with you more. What we do – a couple of things. First, we have been quietly, in a very friendly fashion – there are great people at the W3C, saying, "Mobile, mobile, mobile." We have had the M‑Enabling summit promoted the last two years. A mobility accessibility policy for regulators around the world. In that policy, we actually put, as a foundation, the W3C guidelines. So it's our way to indirectly promote that whole thing.

SCOTT HOLLIER: Time for just one more question.

UNKNOWN SPEAKER: Yes. My name's Will Tippon from the University of Wollongong. Thank you, Axel, for your presentation. Very interesting. I certainly endorse your call for ICT accessible procurement policies for government. Gunela Astbrink were fortunate enough to get an ACCAN grant which investigated that issue. My question relates to – obviously marketing is efficient and effective, but if there's such a big disconnect between high‑end mobile devices which can be used by people with disabilities, and on the other hand people with disabilities are overrepresented in that lower socioeconomic area of the economy, I'm just wondering, is there an argument there for subsidies for people with disabilities to gain access to the more sophisticated mobile technologies?

AXEL LEBLOIS: Yes. Thank you for your question. The issue of affordability is definitely a big issue. We mentioned earlier the fact that, in the United States, for instance, there is a huge – and the UK, where it's measured – there is a huge proportion of persons who are not adopting broadband who are persons with disabilities. When you look at the detailed numbers, you find that there is a strong correlation between disability and economic status. It is also, too, that if you look at the reason why persons with disability would not afford a broadband connection or have a mobile service in expensive handsets, it may be threefold. First, there may be a question of accessibility, pure and simple. People can access the promotion material, they don't know the solutions, nobody has helped them to find it out. They may not be able to go to an App Store, which we'll discuss later on today. That's the accessibility issue. The second issue, of course, is the disposable income of the person, whether or not they can afford to buy it. But then when you dive into affordability, you see that it's a relative notion. Quite often, people say, "Wait, it's not affordable." It's also because they don't see the benefits for them. When they don't see the benefits, why should they spend any money on it? So there is a double thing – there the reality is, there should be subsidies for persons with disabilities so that they can afford an adequate application. But also, what we find everywhere around the world is that the most effective technology adoption program always emphasised the usefulness of particular services for the person. If the person is not conscious, does not know where to find, has not experienced the value for service on application for himself or herself, then there is no motivation to spend any money on it anyway. In terms of subsidies, we will hear from Karen tomorrow about, for instance, the program the deaf and blind in the United States, which is sponsored by the FCC. There are many ways to go about it. We advocate, for instance, that countries should modify their universal service obligation legislation to specifically incorporate persons with disabilities as relationships of that universal service front and be covered by the universal service obligation. Most countries have developed universal service obligations based on geographic criteria. You live in a rural area, you don't have access, so we've found a service provider to get to you, so you can actually have access to communications on an equal basis with other people. Nowadays, in many countries, the coverage is 100%. Maybe not yet for mobile in Australia because of your low density of population, but the fact is, in many places, the issue of customer disabilities is much more severe than geographical issues today. We think that there is a sound reason why universal service obligation legislation should incorporate persons with disabilities. We conducted a survey and we found that 25 countries today around the world have already adopted that strategy. So we went to the ITU and, happily enough, the ITU is now promoting that notion among its membership, which includes all the regulators around the world. We will keep pushing that notion. Once the universal service obligation clearly states that persons with disabilities should be covered by that obligation, then the universal service funds can be used to fund programs for persons with disabilities. There are ways around it. You can help service providers put in extra effort for persons with disabilities. Several service providers around the world have done, already, a lot of things with free applications, sometimes discounted hardware on some software. It is technically possible. I think it should be done. But remembering that, without perceiving the value of the service, even free, it won't work.

SCOTT HOLLIER: We'll have to leave it there due to time. I'd encourage you to track down Axel during the next two days to ask more questions. It has been a wonderful session. Thank you, Axel, very much. Please join me in thanking Axel.

AXEL LEBLOIS: Thank you very much.

(APPLAUSE)