
ICANN76 | CF – ccNSO: ccTLD News Digital Divide
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DEVAN REED:

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ANNALISE WILLIAMS:

Thank you. My name is Annalise Williams. I'm from the .au domain administration. And I'm also the Chair of the ccNSO's Internet Governance Liaison Committee, which has coordinated with the Meetings Program Committee on this session today.

Before we begin, can I just ask everyone in the room to make sure that they've also joined in the Zoom room as well just to make this more inclusive for everybody participating remotely, and to make sure that the extent possible everyone's having the same experience of the meeting? And then also a reminder to grab a heads set. If you need one, at least one of our presenters today will be speaking in a language other than English. And I'm reminded to all of our speakers and if you ask questions to please speak slowly and clearly so that the interpreters can hear what you're saying.

We have five speakers today from across the ICANN regions to speak today about the digital divide. And its most basic level, the digital divide is a gap between those who have reliable and affordable access to the internet and digital devices and those who don't. But there are many ways of measuring a digital divide, and we are going to hear about the experiences from across the various regions and what impact, if any,

issues related to a digital divide have on ccTLD managers. Given the subject matter today, we did try to have a speaker from the Pacific region or from another small island developing states to come and speak about their experiences, but that wasn't possible for this session, and we hope to hear from them in future sessions.

But I will briefly introduce the five speakers we have today. Each speaker will give a presentation and there will be a short time for questions at the end of each speaker. And if there is any more time at the end of the presentation, we can have questions addressed to all speakers. We have today joining us, we have Alexandre Barbosa, who's the Director of the Brazilian Network Information Center, which coordinates all Internet services in Brazil.

We also have Pierre Bonis, the CEO of AFNIC, the .fr registry. Grace Ingabire, the CEO of the Rwanda Internet Community and Technology Alliance, which manages .rw and the Rwanda and Internet Exchange Point. Joining us remotely, we have Anil Kumar Jain, the CEO of the National Internet Exchange of India. And Sabrina Wilkinson is our final speaker. She's the policy and program manager at the Canadian Internet Registry Authority.

So we'll begin today with Alexandre who's also joining us remotely. But Alexandre, you have the floor. Go ahead, please.

ALEXANDRE BARBOSA:

Thank you very much, madam chair. Good afternoon to all. I wish I could be there with you, but this time, it's not the case. I'm going to share my screen. I hope you can see it by now.

Well, I'm going to make some reflections on the impact of the digital divide on our ccTLD .br. And for doing that, I will start with some figures on Internet connectivity and the domain names in Brazil. We have a highly connected society. 82% of our Brazilian networks have Internet access, and 87% of Brazilian are Internet users. So it brings us to almost 150 million Internet users. If you take it a break from 10 years or older, it represents 81% of the population, 10 years or older. It is important to mention that out of these almost 150 million Internet users, 64% of those users access the Internet exclusively through mobile phones. And this is more likely to happen with the low income population.

In terms of domain name, Brazil has reached a milestone of more than 5 million domain names under .br being 1.5 million DNSSEC domain names. And it is important to mention that 93% of the Brazilian large enterprise, they adopt .com.br rather than the generic .com. It is also relevant to mention that 58% of the Brazilian enterprise, they have websites, of which 88% are .br domain names. In terms of our service providers, we have 62% of Brazilian ISP's offering Internet subscription plans above 100Mbps. And we have a very large base of ISPs in the country reaching more than 12000 enterprise providing internet access. But around 75% of those connections are in the hands of five very large ISP providers.

So I would like to pose three questions so that we could maybe explore the relationship between digital divide and ccTLD. So the three questions that I would like to share with you, is there a relationship between the numbers of ccTLD domain names and digital inclusion? How does the number of ccTLD domains relate to the advancement of digital economy? And can the number of domains be a proxy indicator

for Internet access and digital inclusion? And I have here, on the left hand side, the ranking of the 20 largest ccTLD domain names if we take the G20 countries and OECD countries. So when you take this into account, Brazil ranks the fifth largest domain name database, as I said, with more than 5 million domain names.

And the first attempt to understand the correlation, we selected seven variables in three different dimensions. Infrastructure, connectivity and digital inclusion, and domain names. And why we did select those dimensions and those indicators? Because we wanted to include in this assessment, the largest number of countries providing reliable statistics. So we were able to select 149 countries that provides regularly statistics on number of AS, autonomous systems, number of IPv4 addresses, number of IPv6 addresses in terms of connectivity and digital inclusion. The number or the proportion of fixed broadband subscription per 100 inhabitants, mobile broadband subscriptions per 100 inhabitants, and average fixed broadband speed. Yeah, anything of domain names, we have the statistics of number of domains.

And the source that you can see on the right hand side of the screen, we had, for instance, data from the regional Internet register, from ITU, from SpeedTest, and domain tools. And ideally, we should include also a proportion of Internet users in a given country or proportion of enterprise connected or proportion of enterprise with the websites. But for most countries, we don't have reliable information. So in these three dimensions, we made a factor analysis which is a statistical technique to understand the correlation between those dimensions.

And in this graphic, you can see three dimensions. Digital inclusion, domain names, and the size of this ball you can see is the largest is this cycle, the largest is or the data is the infrastructure. Here, of course, given that we have limited variables that we included, you have some bias that should be distort in some values. But what we have interest here is to understand the top five country code top level domain. We have .de, .uk. .cn for China, .nl for the Netherlands, and Brazil br. And here you can see that this relationship of these variables help us to understand the relationship between the selected variables that we selected for infrastructure, domain names and the quality of Internet, connectivity.

And the main conclusions are the following. On the top two box, we can draw from these analysis of a statistical analysis, including 149 countries how ICT infrastructure and digital inclusion does impact a given country ccTLD. So one thing that is very clear that poor ICT infrastructure have lower score in domain names in digital inclusion. So country with a very poor infrastructure, they also a have small domain database.

However, higher infrastructure and higher digital inclusion not necessarily imply greater number of ccTLD, which is the case for instance for the .us for the US or .jp for Japan, where you have a very good ICT infrastructure, highly connected society, but in those countries, the generic domain names are usually bigger than the country code top level domain. And countries with outstanding statistics in the number of domains have different levels of infrastructure and digital inclusion, which is also the case of countries like the US, and Japan.

And there is also a very high correlation with demographics and the economy. So population and economic development does impact a given country as well as the maturity level of the digital economy in a given country. Like for instance, where you have many enterprises offering digital services through websites on selling online, buying online, this has impact. And on the lower box, we have the case of Brazil, which has other variables that explain how Brazil has ranked the fifth largest ccTLD among, as I said, the G20 in the OECD countries.

Well, first variable is related to the governance, Internet governance model established in Brazil. So in terms of how policies are defined, how the multistakeholder is structured allows transparency and democratic election of members that composes, in case of Brazil, the Brazilian Internet Steering Committee, which is a real multistakeholder structured and also effective public participation. So these type of variables, which is not easy to measure due to its qualitative nature, it is very relevant.

Another key variable is the high level of trust and credibility of the .br in terms of operations and quality of services. A third category of a variable is, again, communication with society, how they ISPs as key stakeholders in this ecosystem does related with NIC.br, the Brazilian Network Information Center, and final, but not least, a very important category of variables, complementary activities that NIC.br does, not only registration activities. So we have a very large Internet exchange network. We have measurement tools for the quality of the broadband. We have ICT statistics. We have the national CSIRT. And all these activities does create a data community around the organization that

really reinforce the credibility and the growth of this ecosystem in Brazil.

So this is very, very briefly the main conclusions that we would like to share with you today. Thank you very much. If you have any question, I will be more than pleased to answer them. Thank you.

ANNALISE WILLIAMS:

Thank you, Alexandre. And just a reminder, if you have any questions to please put up your hand in the chat. But I did want to read out one of the comments that John McCormick has made in the chat. He says, "A number of unique domain names, ccTLD, so those that exist in the cc and not in gTLDs is a very good proxy for digital inclusion because more businesses using the ccTLD for their business means they are at identifying with the ccTLD as being their TLD."

Thank you. Are there any questions for Alexandre? I'm not seeing any at the moment. And we may have time if you think of something later to come back at the end. We will move on now to our next presenter Pierre Bonis from AFNIC. Thank you.

PIERRE BONIS:

Thank you very much, Annalise. So I'm going to speak French. This is Pierre Bonis speaking. Thank you very much for your attention. I would like to thank, of course, the interpreters. Thanks to the interpreters, we're able to communicate. And this is going to be a different type of English. And I hope to be understood clearly that way. Thank you.

I would like to thank Annalise for enable me to present the situation that we do have regarding the digital divide in France. We do talk a lot about north, south digital divide. And some of us in this room are implied in cooperation and collaboration projects so that we help out between ccTLDs. But let's not forget that the digital divide is a fact inside our societies. And we have a lot to do to improve this divide. And this is what we try to do at .fr in our ccTLD. We try to fight this digital divide.

I don't know if I'm in charge of the slide. Here we go. So let's go to the next one. Thank you. So we have two types of digital divide. And this is, it's not very original, but there is access and there is users, issue with users. And if we start to talk about access, the access divide a few figures. We have 93% of buildings in the cities in France that are connected to the fiber, high speed Internet access with fiber in France, in the mainland and only 40% of buildings in rural areas are connected to fiber and enjoy high speed Internet access. So this is a divide between cities and rural areas at the geographical level. This is quite classical.

But the infrastructures of access, the telecom, telecommunication infrastructure are not always missing, like railways, like highways. There are other types of divides in some geographical areas in France and some isolation. And the digital access is one of these type of inequities. In our country, we do have a stronger concentration of inhabitants in big cities. And we have 7% of the French population with no access to Internet at all. So they are in a situation when they are home. Of course, when you go work, it's different, when you go to your job, to your office. But at home, they have no fixed access and they have

no mobile access either because you have gray areas, you have white areas with no access. Period.

We have to take that into account in public policies and we've done a lot for it in France. But it's quite expensive for the authorities to reduce the access. We took in about 20 billion euros rather than have been invested by the government. So that shows how much we need to do in order to have a fiber all over the territory of France. We have to be competitive. We have to be in our regions able to have the Internet so that we have some economic development as well. And this is important for people to be able to leave big cities. After COVID there was a real need for people to leave the big cities in France and move to the country and be able to work from rural areas. And sometimes they were not able to connect to the Internet, and that was quite an issue. So we need to be really, really in rural areas able to access the Internet.

Next slide, please. So we talked about access, but we also have issues with usage and users. And we have the young people and the older generation. We're looking at young people. Many young people do not have access and many senior citizens do not have access. They have trouble using the Internet. The most vulnerable people that are unemployed have less access than others as well. And I would like to insist on the fact that most of the actions we've done for the youngest citizens, there is an issue to access the Internet.

We talk about digital natives. We think they came with a mobile phone from birth. They know a lot. Yes, they know a lot about communication, but they do not always master the tools that are needed notably, at work, at the office. They can be 14 years old, 15 years old, and they've

never sent an email. And they do not know how to use a computer, and excel, for instance, they don't know about it. And we have to know that training is quite important for young people. We have to help them out, especially when they start working. They know social media, but they do not always know information technologies and communication technologies.

Of course, it's more obvious for older people, but it's not always that clear. Because people that are retired now are able to come out of work where they were trained on information technologies. And they have their entire career behind them. But depending on when they left their office, if they left in 2000, for instance, they are aware and well versed in computers, but they have to learn more about social media. Those senior citizens, they know about computers, but they do not know much about social media. And social network can be very useful for older people to communicate from their retirement home with the younger generation, with their grandkids, for instance.

And in many countries, and in France as well, we see that there is a digitalization of many services, administrative services to be faster, more efficient. We need those websites to do some administrative tasks. But then, those excluded people are going to be excluded twice and even more excluded. And the only people able to help them are public services. So we have some difficult situations. And this is a paradox. We're trying to give help to some people that are excluded from society, but they need a computer to access their help, if they are unemployed, if they are homeless. So the human aspect has to be added and taken into account or else we're going to have a divide which is going to be multiplied.

So let me keep going and move to the next slide. Next slide please. Thank you. So two quick elements about what we do as a registry, .fr, is about 11% is going to be used for the general interest, the public interest. We have a foundation, which is the ethnic foundation for digital solidarity. So this is a foundation with 81 projects funded for more than €1 million. We are all over France. We are working with associations in neighborhoods, in local association in organizations that are going to be able to develop services to have an interdependent and supportive Internet, and to help out people that were excluded and cannot use the Internet that need the Internet to do their administrative tasks.

Next slide, please. All right, I'm nearly finished. And this is from the beginning, more than €8 million that were invested by our foundation with 424 projects. You can go to the site and have more information. Next slide, please. Thank you. I would like to finish with another dimension that needed to be reminded. We are talking about digital transition for small companies, small businesses. We not only promote .fr, but we do work against the digital divide and help out those small companies and medium companies that do not master content production, that do not have website, only use social media for instance. And we have programs to help them out with 20,000 small companies that are going to benefit from those programs, targeting those small businesses. And this is going to be good against the digital divide.

I will stop here. And I think this is the end of my presentation anyway. And I thank you very much for your attention.

ANNALISE WILLIAMS: Thanks, Pierre. Are there any questions for Pierre?

UNKNOWN SPEAKER: Annalise, there is a hand up.

ANNALISE WILLIAMS: Marta?

MARTA DIAS: Yes. Thank you. Marta Dias from .pt, Portugal. Pierre, thank you so much for this great presentation. I have a question for you. How do you decide what criteria do you have to choose the projects that you support every year? Thank you.

PIERRE BONIS: Thank you, Marta. Well, it could take me three or four hours to answer this question. No, seriously, we externalize the work of our foundation. Our foundation is at the foundation of friends, which does a lot, which has experts, foundation experts to found a project and we have a process with that foundation. And we do vote inside our company. And we ask for some projects and then there is an expert analysis. What's important for us is that those projects can be very small. And that's why we're so different. We can have gift for just a few thousand euros, other foundations give €50,000 or €100,000. Because the selection mechanism are quite expensive for some foundations, but we do finance some very small and useful projects.

ANNALISE WILLIAMS: It's almost time to go to our next presenter, but we've got time for one. Jordan, go ahead.

JORDAN: I'll speak in English from there. Don't worry. What's the website to find out more? I missed it.

PIERRE BONIS: I will put it in the chart. That's foundation-afnic.fr.

ANNALISE WILLIAMS: Thanks, Pierre. We move now to our next speaker, who is Grace Ingabire. Grace, you have the floor. Thank you.

GRACE INGABIRE: So thank you so much. Thank you for giving me this opportunity to talk about the digital divides and the case of study of Rwanda. So our company is called RICTA. We are a not for profit organization. We started operation back in 2012. We are mandated by the regulator to manage and administer domain names, but we do manage as well the Internet Exchange Point of Rwanda, and as well the Rwanda Internet community.

So Rwanda is a small landlocked country based in East Africa with 13 million of population. So the registry operates a 3R model, registry, registrar, registrants. And we use Cocca as a software application with

around 53 accredited registrar across all the continent. So the registry is fully automated. And as of today, you can do registration of your daughter, W, less than 5 minutes. And we accept payments model using mobile money as this is the model that is mostly used in Africa, but accept as well even Visa, Mastercard and others. So RW is currently DNSSEC signed. And today we have around 6300 domain names.

So if you look at the slide that you are seeing in front of you that was brought by the Broadband Commission around the bridging the digital divide, I'll only focus on two lines, which is the gender divide, and then the MSMEs online. So as of today in Rwanda, we launched a program called digital ambassadors program. This is an initiative led by the Ministry of ICT and Innovation that aims at increasing the number of digital literate citizens and their use of e-Government and e-Business services. So the program is aiming at training and mobilizing more than 4000 digital ambassadors program across the country. And those digital ambassadors will be the one to train more than 8 million citizen in digitally literacy. So as of today, they have trained more than 60% of citizens. But with a focus of training more by 2024.

So what is in as digital divide or gender divide to me? From my own perspective, it is the gap between men and women, just an ability to access and use the Internet and digital technologies. So to me, I believe that every human being regardless of their gender should be able to live the life that they have chosen. So as of now in Rwanda, Rwanda aims to bridge the gender gap by 2026, and we have three thematic areas that we are focusing on, which are ownership of smartphones, access to digital financial services, and lastly, the STEM, studies for secondary upper level school. And the government's commitment as of today is to

attain a 100% mobile phone ownership per female household by 2026, and double as were the percentage of women who use digital financial services by 2026.

So here, I'll talk about some of the initiatives that this ccTLD is doing in line with government agenda, but my focus will be only on women. I'll talk about an activity that we are doing to train and certify women entrepreneurs to help them to grow and mature their business. Others will be just activities that we are doing in Rwanda. So if you look at this slide, you'll see women with certificates.

So what we did at the ccTLD, we realized that in Rwanda we have more than 4 million Internet users. Statistics shows today that we have more than 800 users that are on Facebook meta now. We have more than 300 users who are on Instagram, more than a thousand who are on WhatsApp and other social media. So this people, they are selling their products online. They are online. They are using the digital platform and those platform are free. So we came up as a ccTLD, we said, how do we give online presence to these people who are selling online? They have little skills online, what can we do to them and our forecast to be on women? So what we did, we created an initiative core digital accelerator program, which is a program that aims at training and empowering more than 500 women in the main city, but we are not staging there. We are planning to scale it up in rural areas.

So while thinking about the initiative, we were like, these women are selling. They have online presence, but they don't know how to use their digital skills. So what can we do? So we created a program tailored to them to teach them the basics on how someone can grow

their business online. So this was through a three-day intensive program. So we taught them how to create digital marketing, how do we do this and etc., online. And later on, we gave them a website. A website that has social media integration with their website.

So basically, they left the room with a website with social media integration, they got an official email address, and they learned how now to grow their business. Despite of being on WhatsApp, Instagram and meta, at least they can have all of them in one package. So they left the room with the certificate. These are the one picture that we took. And today, we have a lot of testimonies of women who managed to grow and their business is growing for the few months that they have been using the website.

The rest are more of programs that we do on the level of the ccTLD. So we have partnership with universities in Kigali whereby we go to them, we have seminars, talks, we provide capacity building. And next month, we will be creating a reseller program within the university that aims at creating job for the youth. So here, we are planning to train the student. These are the people that, as of today, are learning to build the website, their software development but they don't know what to do next. So what we are aiming at is to empower them with skills. So once they know to know the website, they don't need to go host it abroad or put it on .com. We talk about our online presence as Rwandan as well.

So the next slide is more what we did on MSMEs. This was just an initiative that was capturing and helping SMEs in Rwanda and give them online process. I think I spoke about it a few years ago. I'll not delay on this. But just to conclude, as a ccTLD, I believe we need to partner with

governments and private industry and leverage on existing initiative that are in country. So we need to position ourselves as a go to when it comes to educate our community. Partnership with universities is very key. This is because this is where the youth is as of today. So thank you so much. I will just break here. And if there's any question, I'm ready to respond.

ANNALISE WILLIAMS:

Thank you, Grace. Are there any questions for Grace? Perhaps I might sneak one in while people are thinking. I'm interested in, particularly I'm interested in both of your both the digital ambassador and the digital accelerator programs. But with the ambassador program, how do you identify? Does your organization identify your ambassadors or do people apply to become one? How does that work?

GRACE INGABIRE:

Thank you. Are you referring about the digital ambassadors program from the ministry? Okay. So thank you.

ANNALISE WILLIAMS:

I mean, the slide you had earlier, the ambassadors that teach people.

GRACE INGABIRE:

Yes. Basically, these ambassadors, they go in rural areas, in the main city, and they teach the citizen about the basic digital skills. How do you use a laptop? How do you create an email? Actually, there is a program that they have for every citizen from basics. How do you open an email?

How do you use the Microsoft Office? Yeah. And, actually, the government has partnership with some organization that are leading the program.

ANNALISE WILLIAMS:

Thanks, Grace. That's really interesting. Are there any other questions? I'm not seeing any. So perhaps we will move on to our next presentation. Anil will also be joining us remotely. Anil, go ahead, please.

ANIL KUMAR JAIN:

Thank you. Thank you, Annalise, and thank you ICANN, for giving me this opportunity to talk to all of you. NIXI, my organization, where I'm CEO is working for Internet exchanges, and perhaps we have the largest Internet exchange system in the world with 60 Internet exchanges on date. I am also CEO of the .in registry and IDN ccTLD that is .bharat registry. And I'm also CEO for the national Internet registry that provides Internet protocol addresses.

Coming to digital divide, I think the motto of ICANN is very clear, to bridge the digital divide, that is one word, one Internet. And this is the motto where we have to take all the situations which are available as on date. Next slide. Of course, there are several definitions of digital divide, but I personally feel that a single sentence like unequal opportunities maybe because of any reason, to access information. And, of course, the digital information creates the digital divide.

Next slide, please. Now if we talk about that, what are the impact which digital divide is going to have, we know that 2.7 billion people globally are still offline. And this creates inequality, that is creates the social and economical inequality. This creates social exclusion, which lack of access to technology excludes a section from sociopolitical participation. It also creates problem for the economical growth. Because digital access is essential for economical growth, enabling innovation, productivity, and competitiveness in the industries.

And we have seen in the last two years when COVID was there, importance of digital platforms with respect to health and education. And because of in excess of the digital infrastructure to those people who don't have, they have suffered a lot. And the children who are not able to access digital education, online education, they have lost virtually two years. So this is the impact and this is the impact.

So let us look into next slide please. What is a digital divide variant? Now, you know, there are several variants which we can see in the digital divide, but I am touching only few. For example, the fundamental availability of infrastructure. And of course, the cost, which is the last mile cost, and because the cost is there, you are not able to reach to all the users, reachability in case the span of reach is very, very high. For example a country like India, which is bigger one. Then data, we are talking about open data, which is across the boundaries, or we are talking about restricted data, now we are talking about personal data, official data, or public data. This leveling of data is happening in few countries.

Then gender divide with all my precedent speakers have also spoken. And United Nation has also taken this as part of SDG. And 58% of the women's use mobile Internet. Still, the gap between male and female is 234 million. And 143 million fewer women owns a mobile. Social divide is there in the urban and rural, which exist throughout the world. That economical divide is there in industrial policies that is spread of Internet access to the last mile, advanced technologies, which are available in few countries, which is not, and the tech stack, which is now available in few countries. India is leader in this, and we are now talking to various countries to make over text tech available to everybody. And, finally, the cyber resilience, when the Internet users are more, they lead a flawless Internet. And if flawless Internet is not available readily for the Internet, then those people who are under the risk, they are not able to effectively use it.

Next slide, please. Now if we see the situation in India, I have divided this into six categories. That is access to broadband. I just want to remind that we are around 1400 million population in India. So as on date, approximately 840 million people are using broadband, which is the largest connected nation globally, but at the same time, it is the largest unconnected nation globally. Smartphone ownership is around 659 million. The mobile users are 1.14 billion. Mobile network coverage is almost covering everybody, but I think the male/female access to the Internet is also, if we see the 2022 figure, 90% of the male, wherever the Internet is are able to access Internet whereas this figure is 56% for the female. And the urban rural divide, which I was talking, is that 497 million urban population are able to use Internet as compared to 336 rural population.

Next slide, please. Next three, four slides, I have taken one by one to project the things like access to broadband. Next slide, please. Next slide, please. Smart ownership. We can see the gap how it is there. Next slide, please. Then the mobile and fixed phone users, you must have seen that the 95% of the broadband users are on mobile rather than the fixed line. Although the fixed line which is available with us is approximately 24 million, which is quite large, which includes both the fixed line as well as the fiber to the home.

Next slide, please. And mobile network coverage is almost close to a 100%. That is what is the claim which we have. Next slide, please. And female and male having access to Internet, we are able to see that the gap is very, very large. And especially in rural areas, there are socially taboos for the female to use Internet. Some societies, they still don't permit females to use internet.

Next slide. Now let us see that NIXI, which is next slide, please. NIXI, which is providing all the services of Internet exchange, ccTLD, IDN ccTLDs and NIR are trying its own efforts to bridge wherever it is possible. So we are reaching out to women, we are reaching out to elderly people, and we are also reaching out to especially enabled people. Disabled people. We can say we call [00:53:56 -inaudible] in India. And we are trying to make the digital identity and digital services available to all of them in a very comfortable way.

Second, we are a country where 88% of population do not converse in English. So there is a big language barrier existing in India. And I'm very happy to inform you that we are the only country which has IDN available in all 22 official languages, which are available with us in

[00:54:40 -inaudible]. To promote this, we are providing a free IDN ccTLD if somebody is purchasing a ccTLD. It means that if somebody is purchasing .in, then dot [00:54:54 -inaudible] is absolutely free. With every domain, we are providing a free email. So we are providing an email in local language. So we are promoting universal access, but at the same time, we are trying to deliver Internet to the rural population.

We have more than 600,000 villages. We are on a mission to provide the digital identity to all 600,000 villages. And we hope that by June this year, we should be able to cover all villages. India has more than 60 million MSME, and they have suffered a lot during COVID. We are trying to provide a free domain and an email initially for a newly registered MSME to promote in the industry to bridge that digital gap. For IPv4 and IPv6, we are providing a free IPv6 with the affiliates who have IPv4. So we are promoting IPv6 in a big way.

And I'm very happy to inform you that India is number one globally in adoption of IPv6. And now we have started a capacity building exercise in Academia and organization with a new course on Internet governance. Initially, we are starting with the certificate course, which will lead ultimately to a degree course. This will generate the Internet governance community throughout the country. And then we will be able to assist other people.

Now let us see what are the challenges we are facing in making all these efforts? Next slide, please. So first is that we are a very big country. So reachability, especially to the remote areas, which are [00:56:53 -inaudible] areas, difficult areas is difficult. Second, we are also finding it difficult for registrar which are available in every part of

the country. So in less developed states and in the rural area, finding registrar and registrar who can work on this is difficult. Then third, when I'm talking about promoting the IDN, ccTLDs and emails EAI, we find that vendors who are ready to work on this are very, very limited. So this is one challenge which we are facing.

As I said that we are the largest connected nation, but at the same time, we are largest unconnected nation. So there is a disparity. Social economic disparity, especially in health and education. And this is creating tensions in the society. And finally, that because we are a big society, we are with 3.2 million domains with ccTLD and approximately the same number of domains in gTLD. Cyberattacks are increasing. And because the cyberattacks are increasing, the trust factor in especially the young population, is getting reduced.

So next slide, please. We are also contributing toward the global efforts in digital divide. For example, that GDC program, global digital compact program of United Nation India is contributing smartly. One of our minister is the on the leadership panel of IGF. We are allotted the first global UA Day celebration by USG and ICANN on 27th and 28th of March. And I invite all of you to join at New Delhi. And it is a hybrid event, and we will be sharing the link also shortly. We are working at a very important project called National Internet resilience where we are projecting that in case we are cut off from the whole world, still the Internet within India should continue to work. And India is supporting an open but not a fragmented Internet. So ladies and gentlemen, thank you very much for patiently listening. Thank you.

ANNALISE WILLIAMS: I think there's time for one question if there are any questions for Anil. I'm not seeing any at the moment. Sorry, please go ahead.

BYRON HOLLAND: Thanks, Byron Holland .ca. Thank you for that presentation. Very interesting. I appreciate all the facts and figures. There was a slide you had roughly midway through. There was a table slide that broke down a lot of the various usage data in terms of Internet penetration, cell phone usage broken down by male/female. And as I looked at Internet usage-- No, it was prior to this one. More table of data as opposed to bar charts. Yeah, that one. If you look down at number 5, male/female usage, access to the Internet and you go across 2020, 2021, 2022, I see female, it's 78% in 21 and 56% in 22. And I'm just wondering what happened if anything there, or am I mistaken somehow?

ANIL KUMAR JAIN: Yeah. Thank you very much. I think it is a slightly typo mistake. In 2021, it is 55 and 48 instead of 78. So this is a type of error. I am sorry for it. Thank you.

ANNALISE WILLIAMS: Thanks, Anil. And now we'll move to our final speaker for the session. We have Sabrina, please.

SABRINA WILKINSON:

Good afternoon, everyone. Today, I'd like to talk to you about the digital divide in Canada and how CIRA is trying to close this divide through two of our major giveback initiatives.

Next slide, please. At CIRA, we believe that the Internet is an overwhelming force for good in the world, but we recognize that its benefits have not been felt equally. Canada is, of course, characterized in part by its geographic breadth. We have a very big country, and this plays a part in discrepancies and access and speeds between more urban areas of the country and more rural and remote areas.

With the high percentage of our population living within a few hundred kilometers of the U.S border, Northern regions of Canada in particular often deal with slow Internet speeds, internet outages and access issues. At the same time, limited competition in the Canadian telecom sector has played a role in Canada's digital divide as well. While there are a number of small providers, large incumbent players dominate Canada's telecoms landscape, particularly outside of urban centers.

At the same time, as CIRA's Internet performance test, which I'll be talking to you a little bit about later in the presentation, shows there is often a gap between the speeds that Canadians actually receive from their providers and those that are promised. So these challenges are recognized by Canadians, and our telecoms regulator, the Canadian Radio Television and Telecommunications Commission, the CRTC. In 2016, CRTC set a basic service objective of 50Mbps download speed and 10Mbps megabytes upload speed for fixed broadband with an option for unlimited data.

So a few years on from that, in 2021, the latest data from the CRTC shows us that only 62% of Canadians living in rural areas have met that basic service objective of 50 down and 10 up. And only 43% of those living in first nations reserve areas have met that basic service objective. Clearly, we have a long way to go. A significant digital divide exists in Canada, and that's based largely on where you live.

So what does Canada's digital divide mean for us as Canada's ccTLD? Well, the key impact is that while .ca is for all Canadians, the benefits can't be shared if there is unequal access to the Internet. Think of the entrepreneur who lives in Iqaluit, the capital of the territory of Nunavut who wants to sell their products using a .ca domain name. Or consider the content creator who lives on one of the gulf islands off the coast of British Columbia, who wants to share video content on a .ca website. Or broadly the Canadians across the country who want to meaningfully engage online using a .ca domain name, but can't due to access, speeds or cost.

Next slide, please. So while CIRA is best known for managing the .ca domain registry, we also have a mandate to do good things for the Internet in Canada. At CIRA, we use Netgood to talk about those giveback initiatives. These include initiatives to address the digital divide in Canada. Today, I'd like to talk to you in a bit more detail about two of those initiatives and how they're used to address the digital divide. The first of these is CIRA's grant program, and the second is CIRA's Internet performance test.

Okay, so let's talk about grants first. Next slide, please. For the last 10 years, CIRA grants program has helped communities get the funds they

need to make meaningful change. CIRA grants fund community led Internet projects to build a resilient, trusted, and secure Internet for all Canadians. We offer one of the few non-government digitally focused funding programs in the country. And every year, we receive many more applications than we are able to fund. There's clearly a need to address these challenges. Since 2014, CIRA has provided \$10.45 million in funding for 201 projects across Canada. And many of these have addressed the topics we're talking about here today, the issues related to Canada's digital divide.

So this includes funding community run high speed Internet for low income indigenous households and students in the Malahat nation, reducing dependencies on third parties, and increasing economic self-sufficiency. Another example is our funding of high speed Internet connectivity initiatives for two small francophone communities in the Port au Port Peninsula in Newfoundland. A third is our funding of high speed fiber optic installation connecting underserved remote and rural communities in Winnipeg's Metropolitan region. And these are just a handful of the many, many broadband infrastructure projects we support as one of the priority areas of our grants program. And it's one of the ways we're working towards trying to help close Canada's digital divide.

Okay, next slide. So the second initiative I want to talk to you about today, that's CIRA's Internet performance test. So we run this Internet performance test platform which allows anyone with an Internet connection to test their speeds under real world conditions. The results are then anonymized added to a national database that helps communities, policymakers and others keep map where broadband

upgrades are most urgently needed in Canada. Think of it as a time machine of crowdsourced data that can demonstrate changes of broadband performance over time.

So let me explain what you're looking at on the screen. So this is a screenshot of our public facing interactive map that shows sort of a cluster of test results a little bit north of Edmonton, which is in the province of Alberta. So the bigger the individual clustered point, the more tests have been run-in that area. And the clusters in deep blue show where average downloads are above 50Mbps. So that's in line with the basic service objective I spoke about earlier. And those that are deep red show where service speeds are around or under 5Mbps download speeds. So what you're seeing here could be virtually anywhere in the country. An urban population that's well served, surrounded by rural communities which tend to be considerably less well served.

And so for a long time, the tools required to assess connectivity we're simply out of reach for many communities in Canada, in particular rural and remote communities. By creating the Internet performance test or as we call it for short the IPT, we're helping to change that. And we're equipping communities with the technology that they need to advocate for better broadband. So we work with a variety of different communities and organizations to help advocate for better broadband in these areas. In Alberta, we've worked with the rural municipalities of Alberta who've used our data from rural Internet users alongside surveys to inform their advocacy work. Sturgeon County, Town of Stoney Plain, Northern Sunrise County, these are all small communities

in Canada. They're using data at various phases of their broadband strategies to inform their decision making.

JOKE BRAEKEN:

Sabrina, this is Joke. If I may ask you to please slow down a little bit for the interpreters.

SABRINA WILKINSON:

Oh, yes, apologies. Among other governmental organizations we've partnered with the province of BC to help benchmark progress to that basic service objective of 50 megabytes down and 10 megabytes up. So these are all some of the ways in which we're trying to push the IPT as a tool that can be used by Canadians to help close the digital divide in Canada.

So today, I've talked to you about the digital divide in Canada, some of the challenges that are particular to our country and some of the ways that CIRA is responding to this challenge, via, in particular, its grant program and Internet performance test. At CIRA, we're all about building a trusted Internet, and this is part of how we do that. I welcome your questions.

ANNALISE WILLIAMS:

Thanks very much, Sabrina. I'm seeing some questions over here. I'm not sure who was first, but Javier, you go first. You're pointing at each other.

JAVIER RÚA: Javier Rúa, NomCom appointed counselor, Puerto Rico. Great presentation. Question on your platform or your Internet speed platform is that users that they access an application and as close to a certain, like, antenna and measure that antenna or is it the regulator going to places to measure things? How does how does it work?

SABRINA WILKINSON: I might have to follow-up directly on some of the technical aspects. If you'd like to use the tool to get a better sense of what the platform looks like on the user's end, I'd recommend yourself or anyone else take a look at cira.ca/netgood. And maybe afterwards, I could collect your info and get that information for you.

ANNALISE WILLIAMS: Thanks. We're almost out of time, but Sean I will take your question quickly.

SEAN COPELAND: Sure. Actually, mine is more a comment. So Sean Copeland on the record, NIC.vi, but actually speaking to you as a Canadian. I want to say that I'm really impressed with your outreach into the First Nations communities. That is something that is dear to me because my wife is First Nations, and I know the impact of lack of Internet and when communities get the Internet. And it is phenomenal. You guys are really doing a nation building work in the 21st century. And I appreciate your work, [01:13:28 -inaudible] work in this area. That's my comment.

ANNALISE WILLIAMS: Thank you. Joke tells me we can take one more question. Irina, we are out of time. So if you could keep it short, but we will hear from you. You have the floor. Thank you.

IRINA DANELIA: My question was both to Pierre and Annalise. And I wanted to ask if you can give a rough estimation of the cost of the ground project. Because we were just reviewing ICANN's budget for the next year and the auction program costs are up to 40%, or the amount of grounds to be distributed.

ANNALISE WILLIAMS: Apologies. I misunderstood and thought your question was for Pierre. Would you be able to repeat that one more time?

IRINA DANELIA: Can you give an estimation of the cost associated with the distribution of funds?

ANNALISE WILLIAMS: So the cost associated. So this year, our grant program is funding. We'll provide projects with up to \$100,000 per project and the total funding provided surpasses \$1 million Canadian. In terms of the resources that go into it on the back end, I'm not sure I could speak to that.

UNKNOWN SPEAKER: Thank you very much, Irina. I can give you an average that 8% of the amount is delegated to the function of the foundation and of the program. And usually the foundation that we are hosted in, Fondation France, tells us that it should not go higher than 11, between 7 and 11.

IRINA DANELIA: Thanks a lot.

ANNALISE WILLIAMS: That's all we have time for today. Before I draw this session to close, thank you to all of the panelists. I think it's clear that there's not one digital divide, but many digital divides between older and younger people, developed and developing countries and even a gender digital divide. So thank you to the interpreters. It's great to have interpretation available for this session. Thank you to the secretariat. And thank you, in particular, to all of the panelists. And I just wanted to acknowledge that it is Sabrina's first ccNSO meeting. So thank you for diving into a presentation in your best time here. Thanks, everyone. The meeting is closed.

[END OF TRANSCRIPTION]