JOHANNESBURG – NextGen Presentations
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ICANN59 | Johannesburg, South Africa

UNKNOWN SPEAKER: Testing, testing. Okay.

UNKNOWN SPEAKER: NextGen, NextGen.

UNKNOWN SPEAKER: Welcome.

DEBRA: I want to introduce you to Mirabelle. She's going to be our honorary NextGen moving forward, for the rest of the week. So, she's going to be with us for the sessions for the rest of the week. This is Mirabelle. She's our honorary NextGen now.

So, I have a t-shirt for you. Do you want a small or a medium? Small? Okay. So, she'll be with us for the rest of the week. Please welcome her into the group. She's 16, so she's… That's why she's honorary.

I brought you a shirt.

[SPEAKER OFF MICROPHONE]

UNKNOWN SPEAKER: Yeah.

[SPEAKER OFF MICROPHONE]

DEBRA: Okay. We're going to start in five minutes. Okay?

[SPEAKER OFF MICROPHONE]

AMIE NJIE: Good morning, everyone. My name is Amie Njie. I'm from Gambia.

[SPEAKER OFF MICROPHONE]

Okay. Once again, my name is Amie Njie. I'm from Gambia. Today I will be presenting on internet education for young women and girls. First of all, I would like to tell you the reason why I choose this topic. The reason I'm so fascinated about it is because I've seen that women are very lacking in this aspect.

Like, they're not aware of this. They're not aware of the internet, of the internet usage and so on. And this causes… This is a reason why there is a huge gap between, there is an internet user gender gap between male and female. So, studies have shown that 250 fewer women are online than men.

And also, this increased like 12% between 2013 and 2016. These were studies conducted by ITU, International Telecommunication Union. They also support girls in IT initiative. And current trends in less developed countries, guess that 350 women and girl will remain unconnected by 2020.

So, we don't want that to be happening, right? And we also need to ask ourselves, why is this happening? Why are we left behind? Why are women left behind? Why are they not using the internet?

Why the huge gap? Is it lack of awareness or skill? Is it inaccessibility of the internet? When you say inaccessibility of the internet, doesn't necessarily mean there is no internet. There could be internet, but it's not affordable, or there is no proper infrastructure. Maybe in schools, there are no computer labs. They don't have access to the internet, or poor [inaudible] authorities.

The government, they're not doing as required. They're not putting IT in the school curriculums. They're not introducing students to IT at a very early age. I think being introduced at an early age, they tend to know more about the internet, and what it entails.

Possible solutions to this huge gender gap could be promoting girls in IT agenda. Basically, many countries, nowadays, are

supporting it, the internet globally as well. ITU supports it. Another possible solution to this could be capacity building programs for girls, especially in the rural areas, because, yeah, they are left behind. They don't have the infrastructure. There is no infrastructure there.

Even if it is there, they're not, they don't have the capacity to do it. Another one is to work for government to integrate ICT in the school curriculum, investing in infrastructure, ensuring the internet is available to everybody.

So, capacity building programs. I've listed three programs that I think people need to take into consideration. Web literacy. This is, it basically teaches people how to read, write, and participate on the web. And basic IT skills. I think this is very important to everybody. And child online protection. Children, in schools, they don't need to know how to be protective online. Yes.

So, I've been volunteering doing my… I am a recent graduate, but during my school days, and even now, I still continue to do voluntary works. I work with girls in ICT group, where we teach girls about programming, frontend programming. And we also introduce them to graphic designing.

So, there is this online tool called Canva. It's very easy to use, and they do a lot with it. There is also Scratch. These are also is a very essential tool for programming, and the kids love it

because it's very easy to use. And content management system, we teach them about… The most popular one right now, WordPress, is very easy to use, and it's the most [inaudible], yeah, once again, very easy to use.

So, as you can see, you can see the girls down there. They are fixed in [inaudible] boxes. So, this is like a game. They are arranging [inaudible] boxes in order.

And I also teach at an IT institution called Sterling Consortium. I teach high school, those who are done with high school. Some graduate, some might even be working, but they're interested into web programming and stuff. So, this is hackathon girls. It is an initiative that I formed with the science and information system graduates from the University of Gambia.

Here, we work on several projects. Currently, well, our project is called [inaudible] club of hackathon girls, where we teach girls how to read, write, participate on the web. We also currently…

When I go back, we'll be conducting a workshop, a younger girls workshop, where we will introduce young girls to Python. And the reason why we teach web is because it's going to build capacity in young girls. It's a way of achieving gender equality. It's a way of increasing internet users, and bringing, increasing women online presence as well.

And as we're teaching, we're also creating awareness. Making them aware of the negative aspects of being online, and how to be protective about it. And as well, conducting all of these, how you call it, works, we tend to improve accessibility to them, because we, our venue is… We use one library. There are computers there, there is the internet. So, some of them, there are some people that never have used the computer before, have never been online before.

So, we've made it accessible to them. So, my goals and future work, I would like to see an increase in women in the ICT sector in the universities. I would like to see IT graduates getting their desired job, and also getting equal pay, because this is becoming a concern.

I think recently, I read about… I mean, Google has been sued for not paying their staffs equally. And this would also… I would like to see an increase in women online presence. And currently, I'm working on an e-learning web app for kids. This is going to introduce them to IT and like how to use a computer, how to use the internet, how to go about it.

To work with the internet society, and part of the internet society is executive, I want to work with them, with our government, to ensure that ICT has been integrated in our school curriculum. And also to engage in internet development

projects such as infrastructure, because with this, the aspect that we're lacking most in our country.

Several schools are without computer labs. This is the reason why people are finding it difficult when they come to the university, because can you imagine, being throughout high school, primary school, and you've never touched a computer before? When you come to the university and they ask you, give you research work or something, you don't know how to go about it.

So, these are to indicate. So, thank you. That's the end of my presentation.

[APPLAUSE]

UNKNOWN SPEAKER: Okay. Are there any questions for Amie?

Okay. We need you to speak into the microphone when you ask the question, and state your name.

UNKNOWN SPEAKER: My name is [inaudible]. I'm with the NextGen. How many girls per project? And is it easy to find them, or is it hard to get them engaged and interested on these activities?

AIME NIJE:	Currently, we have 30 girls. And in the beginning, it was really hard because maybe they weren't aware of it, or is because they don't know how it's going to be taught. It's ITN, it's not for girls. That's what most of them think. And so, we try to encourage them to bring them onboard. We've visited schools and then, yeah, encouraged them to be coming.
	And those that are coming, we encourage them to talk to their friends, and then let them join. Yes, thank you.
DEBRA:	Okay, thank you. Before we move on… Thank you very much. Very good presentation. Before we move on to our next presenter, I want to just take this opportunity to thank everybody for being here today, and those of you in the audience. And I want to introduce our NextGen ambassadors, I didn't have a chance to do that at the top of the hour.
	[Inaudible] is here from India. [Inaudible] from Brazil. [Inaudible] from Czech Republic. And Zana Douglas from Palestine. Thank you for being here and coming back as our NextGen Ambassadors for ICANN 59.
	Okay. Our next presenter, we're going to skip around a little bit. And Eric [inaudible] is going to be our next presenter. Eric?

ERIC: Thank you. So, I'm Eric [inaudible]. I'm going to take you through the next presentation. Before I dive in, I would like to note, some years back, no one knew that you could talk to someone like 1,000 kilometers away. You couldn't put out the light without using the switch. You couldn't take a trip in a driverless car. We're living in a generation where I can do all of those stuff.

Thank you. You can do all of those stuff, virtually without doing anything, and basically interacting with the machines. So, in the presentation, you can engage me on Twitter. My handle is Eric [inaudible]. You can put [inaudible] and then hashtag ICANN.

So, before I dive in, I would like to mention a few things about me. All about leadership, communities and technology. Leadership is a very big aspect in many of our fields, because for us to develop and get to another level, we should [inaudible]. So, I'm really encouraged to have my panel of NexGen [inaudible] year, who are representing their communities back home.

I'm also encouraged to be in the ICANN community, where we're serving problems and providing solutions to the community. We are living, also, in our technology is a big factor. Like everyone, everyone has interacted with the technology [inaudible]…

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So, into my presentation. So, what is internet of things? So, basically internet of things is a mix of mobile, home, and embedded applications. So, we're experiencing machines becoming intelligent each and every day. For example, I don't have to guide a machine on how to do things. They can do it for themselves. So, practically, I can show you how. So, I want to listen to some music.

I will tell the gadgets, I won't show the gadgets how to do it, I'll just tell it to play the music. Play jazz music.

DEBRA: Eric, if you could just slow down a little bit? I'm having a little bit of trouble understanding you. Just a little bit slower. Thank you.

ERIC: Okay, sure, thanks. So, practically, an example, I'll tell my gadget to play music, and don't show it how. I just tell it to play music. Play jazz music.

[Music]

Play music. [Inaudible] really gadgets on how to do it. I just told it to play jazz music. So, in the next generation that we're having, you'll have to, you just talk into a room, and then the

room will detect maybe [inaudible], maybe alone, and then it will play music depending on the mood. So, maybe it will work with someone else, maybe a partner. So, the room is supposed to detect if there is someone in the room.

And maybe play maybe some music, depending on the mood. For example, if my kid is inside the room, it can maybe guide the television on which the [inaudible] shows that are supposed to be shown. So, that if they're PG rated, the child doesn't see things that they're not supposed to see.

So, currently, by 2020, we'll have 50 billion devices connected to internet of things, which is something is [inaudible], but at the same time, it's a big concern for us because currently we are 7 billion people in the world, by then, we'll be 7.5 billion people. So, that means, that's an average of six devices connected to the internet, meaning that security concerns and privacy issues will be major in our era, by 2020.

So, what does that mean for you? So, in average stakeholder person, maybe in the morning, you get out of bed, then take a shower. After taking a shower, maybe you take some coffee. Then you dress up, take your [inaudible] and then maybe go to your job. But it will come to a point where the bed will automatically know what time you're supposed to wake up, because of your sleeping patterns.

It will have learned through maybe artificial intelligence or machine learning. By the time you are getting out of your bed, yet the shower will adjust the temperature. So, when you get to the shower, you don't have to maybe put it on. So, depending on the temperatures of the atmosphere, the shower will put the temperature so you can bathe using the warm water.

So, by the time you're stepping out of the shower, the coffee maker will have detected that you are out of the shower, and start making maybe coffee for you. So, by the time you're drinking your coffee, the dressing, maybe wardrobe would have detected that, and start maybe ironing your clothes.

So, you can [inaudible] you have done nothing. Everything is so intelligent, it's doing it themselves. By the time you're done dressing and getting out of the house, your car would have detected that, and will [inaudible], you don't need to drive your car. You just need to get into your car, and tell it, I need to get location A, B, C, D, and then the car will take you there.

And then, during your journey to that place, there will be maybe an interaction with a car and the traffic system. So, the traffic system can tell the car that there is maybe a jam in section A. How you can avoid that jam? So, that takes me to my next slides, where there are things that you really need to take

concern in the community, when they are developing the internet of things platform.

So, you need to take [inaudible] about the probability, as much as you're developing for the [inaudible]. Make sure these things are all concerned and intermingled together. So, compliance, we need to raise our security standards, because [inaudible] security is really coming up with us.

DEBRA: Eric, slow down please. The interpreters cannot keep up.

ERIC: Sure. Sorry, sorry. So, for the compliance, we need to raise the security standards, so that the cybersecurity and the hackers don't get into our space. Privacy issues are a major concern in the digital space, so I would like to push the community to set standards and set policies and governance that ensuring that privacy is kept into the mainframe.

Innovation. Currently, I would see this with small microprocessors, which most of them, you can't put an upgrade. So, maybe if there is a security, maybe flow, we can put on a patch and create. So, if you come up with innovative ideas of creating microprocessors that cannot accommodate maybe security patch in the future, it would be really good.

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And then you… The next point you need to stress is security, because it is a major factor. Because now that you are in the internet space, who is taking care of us? Because we are pushing that into the online platform. Who is taking of that? So, by 2020, I hope anything, any device, will be of the secure pattern.

So, to allow privacy, security, and all gadgets secure in all manners. [Inaudible] and inclusive systems. These systems should be [inaudible] that anyone in any place to use them, regardless of where they come from. Global public interest. So, we don't want to have cases of privacy concerns, or maybe security issues.

We want that many people are very, very feelings of using them, clarity and efficiency. Currently, [inaudible] to drive home the concerns of privacy and security. So, if you just develop the systems, and keep in mind about clarity and efficiency, it will be a really good go.

Unique identifier ecosystem. I mentioned that by 2020, we'll have 50 billion devices connected to the internet platform. How are we going to identify those devices? So, that's an immediate concern also. So, we should note that also.

And then, as much as we're keeping all of this in mind, we shall ensure our services are fast, excellent, and innovative. So, I just

hope in the future, I'll have a bookshelf, which tells maybe a book that takes… Maybe I'm reading in two weeks. So, [inaudible] and maybe advise me, these are what you're supposed to do.

Take notes. And maybe, depending on my reading patterns, it can give me maybe questions, so I can learn from them. I'm also looking at a platform where the ATM is going to interact with me. Maybe if someone goes to maybe withdraw money, and maybe they capture their face, and that's not me, could not identify me immediately.

And last but not least, let's keep the security and the privacy concern as a major concern for us, thank you.

[APPLAUSE]

DEBRA: Okay, are there any questions for Eric?

Remember to state your name.

PAVEL: Is it working now? Yes. Pavel from Czech Republic, NextGen. Thank you. Just a question. For me, I'm a lawyer. I have more legal concerns, but you basically described that the future will be connected, clever, smart, and so on and so forth. But you

also mentioned automated cars, for example, and we are really dealing all of the time with the issue, if the car…

If there is [inaudible] accident, if the car should prefer to decide to kill the people in the car, or on the street, this is really like the classic example. But I just wanted to know, your opinion, what do you think about those concerns about machines deciding basically things concerning morality, ethics, and so on?

So, just if you could express your idea. Thank you.

ERIC: [Inaudible] for your question, [inaudible] your questions. So, to answer to that question, I'll take you back. There is a project I'm working on about accidents. So, we are developing automated cars that have maybe sensors around them, and then they know how the road is configured like. So, if you have a [inaudible] road, the car knows that this is the lane that I'm supposed to stick to, and there is that car I'm supposed to overtake to, its need to take concern around it.

So, regarding the morals. Most of the computers are guided by certain scripts. So, they don't step out of it. So, I hope in the future, it doesn't get computers where I guess we have issues of maybe they have [inaudible], and they get maybe, kind of maybe, they get mad. Issues like that.

Particularly… Actually, I was watching a movie yesterday about robots where they are giving the issues of emotions, and you don't see that. Robots started like revolutionizing, started taking over from humans. That's another angle. So, as much as we're developing, we need to have standards, and know there is a limit to whatever they're doing.

Yeah. Thank you.

UNKNOWN SPEAKER: Okay. Thank you. Good morning, Eric. I'm [inaudible] from Niger. I really appreciated the way you see what, how it can work in 2020. Now, I'm living in an urban area. Let's say, I think that I will move to rural areas. So, [inaudible] is very, very inclusive. So, for sure I will take care about the [inaudible], rural areas. So, let's… Give me one or two example.

So, how I can copy this kind of IOT in rural areas. Do you get my message, my question?

ERIC: Come again, I didn't catch you.

UNKNOWN SPEAKER: Now, I'm living in urban area. Cars, so and so. Okay, in 2020, I plan to move to rural area. Your system will be inclusive instead,

so give me one or two example for things that can take me, take care of me if I happen to be in a rural area.

ERIC: I can try to answer that. So, from what I got your question, you are trying to ask me, I give you an example of what the future has for us. [Inaudible] now, so currently, we realize that you are driving your own car, right? Sorry?

UNKNOWN SPEAKER: Maybe. Now, in urban area with car and so and so, in 2020, I plan to move to rural area. As your system is inclusive, so give me one or two examples, exactly [inaudible] there.

ERIC: Sure, I got you. So, in the rural areas, [inaudible] because most of the rural areas are involved in agriculture. So, I would take [inaudible] in the agriculture section, help, transport, and security. So, I give us an area of maybe agriculture. So, we have farms, that automatically detecting the weather, so maybe they can send you a SMS and see it's getting like sunny, can we like put some water over the soil? So that the plant doesn't wither.

So, in areas it's some machine system that sending you a SMS to tell you that we need to water the plant. So, you can give it a go

ahead, maybe say yes, and then it will be [inaudible] itself, so you don't need to be there for you to water the plants. The machine will do that for you. Yeah, sure, thank you.

BARRY [LEBOW]:	Hi. I'm Barry [Lebow] with [inaudible]. This is not a question so much as a comment and encouragement. I'm very pleased to see you focusing on security and privacy. We have this image that people, young people now, are not interested in privacy anymore. They're used to living their lives out in the open, and it's good to see a focus on that still.

And the other thing I wanted to say is on your pentagon, I want to focus on the innovation part. The scenarios you're saying, it's good thinking on that line of how to do internet of things scenarios. And we've been thinking about these kinds of things, people with beards my color, start with what we've been used to.

So, emails started with an image of how we did paper memos in the office, and calendars started with paper calendars. And we didn't have things that computers could do that those couldn't for quite some time. Internet of things gives us an opportunity, and I would like to see young people like you, start thinking of truly innovative internet of things scenarios that we haven't even imagined yet.

So, I really encourage you to go beyond the, my alarm clock wakes me up and the shower is ready and the coffee is made, and really think about things that will change our lives completely. Thank you. Thank you for the work that you're doing.

ERIC: Thank you for the comment.

UNKNOWN SPEAKER: Good morning. [Inaudible]. I found your presentation [inaudible], but at least at some point, I see what you are saying. I speak from an African point of view, where we have this thing of employment. IOT is a good thing, but it will come at a cost where most of the youths will not be able to find active jobs. [Inaudible] I've seen a hotel where, at some point, I was upgraded to a room that has IOT.

There was no need for room service. Everything was like done. You wake up, the lights come on, just the way like you were explaining. It want to give you an interface on your computers to set the type of the music played to when you're taking a shower.

The room had this automatic thing. You leave your room, it says bye to you, give us 30 minutes, we clean your room. Of course,

we're taking care of the room and the bed, it has to be done physical. But I'm looking at it from the African point of view whereby if even at the airport, you have machines [inaudible], even like no one opens the door like you go to a hotel, [inaudible] next hotel. It's automatically [inaudible], it like sense you. It opens.

But in a traditional hotel, you find a [inaudible]. That is one of creating employment. Are we trying to make innovation more important than the actually physical way that we do. In the era of driverless cars, [inaudible], taxis and ubers are driverless. [Inaudible] this mission, it takes you there.

Are we not taking jobs away from taxi drivers? The next thing you have is [inaudible] cops. You don't need to go to a police station, listen to a point, and it verifies you are, ever by erecting [inaudible] and processes your what? Your case, and it scans all of the available the crime scene right away.

Meaning, at the end of the day, we just end up becoming to intelligent in the head, and too lazy physically. Thank you.

ERIC: Thank you for your question. I'll try my best to answer it. So, it's true. Even cops, at one time, maybe taken the technology because if the traffic system is automated, we'll not need maybe

police, our traffic lights to [inaudible], because the cars are automatic. So, that's our immediate concern in the technology field.

But then, we're living in a generation where we can't really limit the technology. It's coming so fast. So, I think in the issue of taxis, these cars are automatic, right? They need service. So, I think it will be a shift in data streams, so we won't be having taxi drivers as such, but we'll have [inaudible] maintaining these cars, so that means creation of jobs.

For another, we need also people to develop the systems [inaudible]. So I just think it's the shift of the industry, though, and I'm planning to be a major concern. I also think this also. Thank you. I hope I've answered your question.

UNKNOWN SPEAKER: Thank you, Eric, for your presentation. My question will be on the risks and threats that come with IOT. We see the situation where Twitter last year was hacked by a hacker who was about to connect devices through using it, was it, video cameras and computers?   And was about to hack systems.   What is the prospect of such risks? Thanks.

ERIC: I thank you for your question. So, a true, [inaudible] is a technology that would come up so fast. So, people are not keeping really investing that seriously into security, and it came to affect us. So, for the issue of [inaudible], they are hacked last night. And sorry, last year. I think the LT industry has started taking the issue of security so serious, and you can see now, companies have started coming up with the security regulations.

For example, you have a company called Cloud Flare. It deals with home security. And they have presently started [inaudible] into IOT security, where they have created a platform where, for another device, or maybe another gadget. There is an extra authentication, for you to join the network of internet of things.

So, that means, a part from the internet of things security, there is another layer of security they're providing, so that for you to join the network, there is another indication and encryption part of it. Of course, this comes through the experience of the issue of you're buying the IOT gadget, and then you have to top up with, again, in securities, so it's a bit expensive.

So, but then, we are getting to the industry where basically the industries, the people who are manufacturing the IOT devices will have to up their game in the security pattern. So that the

IOT device, can come with that layer, so you don't have to buy security from the outside partner. Thank you.

DEBRA: Okay. Thank you, Eric. I want to remind everybody that if you speak to closely to the microphone, it's distorting everything, and the audio is very poor, and we cannot understand what's going on, and the interpreters cannot understand what's happening. So, please keep in mind that everything is being recorded and it's being recorded.

UNKNOWN SPEAKER: Sorry, but there is another question there.

DEBRA: So, just don't speak to closely into the microphone, and then it's just clearer. So, thank you Eric, for your presentation. We're going to go on to the next presenter. Amira Abraham?

I'm sorry? Oh, I'm sorry, [inaudible]. Amira, are you going to stand? Are you going to sit or stand? Are you going to sit? Okay. Thank you.

AMIRA: Okay. My presentation is about mass surveillance in the [inaudible].

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Okay. Okay.

[SPEAKER OFF MICROPHONE]

Recently, [inaudible] on… Is this clear? Okay.

Recently, [inaudible] on one of the most [inaudible]. It's called [inaudible]…

Hello? My name is Amira [inaudible]. Graduated from [inaudible]. My presentation is about mass surveillance and the internet filtering. Oh.

Recently a session on one of the [inaudible] sites. It's called [inaudible], but [inaudible] site can't be reached. I used to [inaudible] every morning. [Inaudible] 21 website [inaudible]. Okay.

[Inaudible] protecting of national security. After a few days, our session on [inaudible] website, but again, the reason was, the site can't be reached. So, I had to [inaudible] browser, [inaudible] browser, if you know it, so I can browse this website clearly. But the website itself is [blocked?].

After I view [inaudible] of technical, I can delete it. And browse and access to this website. But, what about the non-technical individuals? We have right to ask information, happen today, to exchange information.

Sorry?

Okay. So, how internet filtering works. What do I do?

Where is the presentation? Okay.

[SPEAKER OFF MICROPHONE]

So, how internet filtering works. Filtering at national level. [Inaudible]. Filtering may be carried out at the national level by government agency, in order to prevent [inaudible] to accessing to [inaudible] IP address. Number two, filtering by service providers. Filtering may be carried out by ISP or internet service provider, to prevent their customers from accessing content on the internet, such as websites hosting copies of copyrighted materials.

Number three, [inaudible] works. At the lowest level, commercial available software can be sold on IP address or individual PC or local networks, to prevent individuals to access system of content, such as pornographic material, [inaudible]. Okay.

[Inaudible] the success of the internet has lead to increasing to the [inaudible] of filtering and access to internet, and block access to the internet. For a variety of reasons, ranging from protecting of national security, to protecting the rights of

[inaudible] holders. Sorry, the interests of rights holders of copyright infringements.

Okay. So, there are many reasons [inaudible] of the mass surveillance. This already… There are many reasons for mass surveillance. Number one, [inaudible] in communication technology held with individuals and communicate a number of different ways, using the same advice.

For example, you can make a voice call, or send message, or send the email, should important [inaudible], social media, using same advice like smart phone. This [inaudible] for [inaudible] the government and private [inaudible], to [inaudible] over individual. Number three, the [inaudible] of communication [inaudible] provided to the government and private companies always important information.

For example, identifies meta data, sorry [inaudible] the meta data, we can identify the names of people, okay. [Inaudible] the meta data, we can identify the people with whom an individual communicate [inaudible]. The websites visit, is [inaudible] a physical location [inaudible].

Okay. Number three. There is actually a process of [inaudible]…. It's clear or not? Okay. [Inaudible] process. [Inaudible]…

Number four, the legal framework that has been developed by many countries, gives less protection to [inaudible] personal [inaudible] with the consent of the communication.

So, I want to [inaudible]… So, I'm asking you now. Are you agree or disagree with the mass surveillance for protecting the national security? I'm asking you. Are you agree or disagree with the mass surveillance for protecting of the national security?

You can, okay.

UNKNOWN SPEAKER: I do agree, because privacy issues today, people are posting things on Facebook, they are living their life outside. So, why don't do that to protect our national security, and protect the security of many lives, in some cases? While people are open with having their privacy violated for no reason. So, why don't do it for reason of national security?

UNKNOWN SPEAKER: I disagree with mass surveillance, masquerading in the name of national security. For the sole reason is once you start giving governments the ability to determine what is considered to be reasonable surveillance, you get into the slope of, you don't how much is too much. And the next time, the government can

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consider anything to be protecting national interests, from knowing where you live, to what you drink in the morning.

JOSEPHINA: Hi. This is Josephina. I disagree with it, because I think that more information isn't necessarily better information. And more intelligence isn't necessarily better intelligence. You could be in a case of finding a needle in a haystack.

UNKNOWN SPEAKER: [Inaudible]. With my law enforcement background, I agree with the issues of mass surveillance. In as much as we may try to disagree or agree, mass surveillance is already in place. It only becomes bad when it loses its central focus, when it targets, probably, enemies, those who are perceived to be enemies or openings of the state.

But on a security level, mass surveillance has always been there, both offline and online. Thank you.

UNKNOWN SPEAKER: To conclude and let you continue with your presentation, I agree and disagree with many of my colleagues. And one thing that I liked from the beginning of your presentation, is when you talk about the non-technical users. A lot of the users, a lot of the

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[inaudible], they don't know about the mass data collection that is happening, and they don't know about the further use, or the consequence of data like meta data on their lives.

So, I think agreeing or disagreeing with mass surveillance is a matter of context, and a matter of sometimes opinion and rule of law. But I think, well, going back to your presentation, I really like the most important aspect of mass surveillance is to empower citizens on using the technology and knowing how to use the technology, and what is mass surveillance for them?

Like how technology is used against them when they don't know, and how to use technology for them. So, we need to empower users on knowing how not to collect data, or how to share the data that they really want to. So, agreeing or not disagreeing with it. I think one of the focus of your presentation that I like is giving non-technical users, the [inaudible] and the knowledge about the technological surveillance. And thank you.

AMIR: Thank you. From my point of view, I [inaudible] between the balance of protecting of privacy of individuals, and towards national security. So, I think it's possible to allow mass surveillance, but in the [inaudible] framework. [Inaudible] to allow international, [inaudible] [governments?].

Number one, [inaudible] must be provided by which law is accessible and [inaudible] to create this regarded against [inaudible]. Number two, must identify the conditions in which the government is [inaudible]…

Three, [inaudible]…. Also, the use of surveillance must always be authorized by [inaudible] authority like judge. Surveillance may only be used when it is strictly necessary to do so in the pursuit of [inaudible].

So, how can we protect our privacy? There are many ways to browse website [inaudible] by using [inaudible] like [inaudible]…

…United Arab Emirates allow to find anyone using VPN. One reason is [inaudible], to limit the use of [inaudible] software. Okay. However, if the users of VPN, switch to the normal [inaudible] if the [inaudible] under mass surveillance. So, there are some advice to data protection.

Don't use the same password for all accounts. Don't overlook their level or unknown [inaudible] files or link is from ALS. Three, of this [inaudible] program and [inaudible] totally. Leave the [inaudible] for all important files. Before we enforcement alone, there are some which to law enforcement. [Inaudible]…

How it will be useful for national security? [Inaudible] for national security if we don't [inaudible] our communication? With these tools the data [inaudible]… Who can see it? Will they be able to [inaudible] better? Is there some specific and accessible time? I think the government, the government must provide a clear answer to all of this, to protect the privacy of individuals [inaudible] national security.

Thank you.

[APPLAUSE]

DEBRA: Okay. Thank you, Amir. Are there any final questions? Okay.

PAVEL: Pavel, NextGen. Thank you. Just more comment then question. Too many of those questions that you post at the end of your presentation, we gave the answer in European Union on the decision of ECJ on, yeah, sorry, of ECJ on like collecting meta data, and doing the survey lens. That was the regulation limiting specific collection, but in a general way.

And we basically said that the general collection of the meta data, data retention is the term, is forbidden and you really have

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to use it in specified cases, and only in specified situations. Not in general, no in mass, nothing like that.

So, that was my comment. Thank you.

DEBRA: Any questions? One final question.

UNKNOWN SPEAKER: [Inaudible] with the NextGen. I don't think this is a question or an answer to one of your questions, but I think one of the questions that you posed, I think it's very important for us to think about as NextGen, as lawyers, policymakers, or technical people, is there any harm for national security?

And we can say sometimes yes, because a lot of this data is held by private companies that are not accountable or liable to governments or other jurisdictions. So, it can be harmful some nationals and some governments. And I think we should think about mass surveillance, not only from states, but also from companies, and that's my question. My answer.

DEBRA: Okay, thank you so much. Okay, let's go on to our next presenter, [inaudible].

UNKNOWN SPEAKER: Good morning.

DEBRA: Remember, presenters. You're welcome to stand up, if you like, at the front. And I also remind you to speak slowly for our interpreters. Do not speak too closely to the microphone, and slowly and clearly. Thank you.

UNKNOWN SPEAKER: Good morning everyone. So happy to be here. My name is [inaudible]. I'm from Nigeria. I was a student at the university, I'm just a fresh graduate from the computer science department. I am with [inaudible] about the evolution of cybersecurity with emergence of IPv6 and how it affects IOTS, one of mine NextGen has already spoken about.

You see, we live in a world where [inaudible] from the pages of science fiction novels. A world where we have a worldwide network of connectivity and communication. Okay, thank you.

And that's what populates it by miracle workers and miscreants a lot. Cyber [inaudible] in space, shopping space, and every other thing that we can think of. And now we have problems with cybersecurity, and as it relates to IOT.

Now, to understand this, I'll be trying to make us understand our objectives here. My objective is to make… We all understand how IPv6 and how it raises major security concerns. First, IPv6, as we most of us know, [inaudible] have a technical background, we'll be taking over, or in most parts of the world has already taken over from IPv4, even there is no global compliance here, so that and…

[Inaudible], IP stands for Internet Protocol. And it's a system of identifiers, that then gives users identification and location, provides them with location systems for their computers and devices across the internet. And now, IPv4 is said to have, just like my fellow NextGen said earlier in his presentation, IPv4 is said to have over 4.2 billion address space, and we're over 7 billion in the world today.

So, I think the IETF came up with IPv6, which has, I heard, 3.4, sorry, 340 [inaudible] addresses. I never heard that word before I came into contact with IPv6. And so the best way to understand the [inaudible] addresses is saying, the amount of IPv6 addresses we have is enough to give every atom on earth an IP address with hundred more earths. That's how huge it is.

And so it's going to be major security concerns with regards to privacy. And so much [inaudible] that will be, being [inaudible] traverse in the networks and the internet at large. Now, also my

objective is to make us understand why IOT, the internet of things, is fast coming in major target for security breaches.

Now, IOT basically is a network of devices, or objects, that have censors and maybe have a way of transmitting data over the network partly through [inaudible] unique identifiers and so on. And so, in the future, just like he said, almost everything is going to be run on the internet.

It's possible to have your shoe, have a sense of everything and run on the internet so that you know the state of it at every point in time, even without being there. And my last objective is to help us know a few ways we can protect ourselves from cyberattacks.

Now, how IOT will affect security and privacy? Because now, we have identifications. Our sites are physical identifications as with our names and everything. Everybody here has an identification over the internet. So, if a mobile device or a device that's connected to the internet, gets missing, it's not just lost of information, but it's also accounts for a lot of identity.

And over the years, we've seen measure cyberattacks that have come through, and recently, we've been experiencing more sophisticated attacks, as regards to DDOS, distributed denial of service attacks. Like in 2016, last year, 21st of October, we

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witnessed the [inaudible] botnet. It took down major sites like Twitter, CNN, and the like.

And also, last year, we also, there is also a record of some automated systems, [inaudible] two hotels were being attacked, and their facilities being distorted. Now, [inaudible] study in 2016 that reveals that 70% of the most commonly used IOT devices contain vulnerabilities.

And in that light, it's going to really, IOT is common with so many problems, as regards to security and privacy. Now, we have, like I talked about DDOS, let me just explain that for a minute. Distributed denial of service is where you have a hacker or a black hat, as it is called, that's trying to take advantage of people's systems without permission. It takes over a large network of devices, and using their possession power to perform major attacks.

So, this device has become like [inaudible] in his own work, and he uses, combines them and use them to make attacks on public, particular sites or particular other end devices. Now we've had most applying effects today of cybersecurity challenges, like the speed of change. Things have changed very rapidly in our society and in the world as a whole.

We have so many new inventions and they are really, the good side is there, that's things are changing for the better, but they

still come with the other side of having many security risks and concerns. We have networks, there is internet, and we have more mobile phone users.

So, we have more end users, or have less people with really deep technical knowledge of how things work, and they're really exposed to security concerns. Also for industries and organizations, we have the BYOD, that's, bring your own device employer, that has people bring in devices that are not actually part of a company's registered device.

Like, you just come from home with your iPad or whatever it is, and just plug it into the network. It can also serve as security problems in that organization. And to the internet as a whole. We also have application risks like malware and other vulnerabilities within applications for software developer that we have to battle with.

We have also infrastructure like physical problems as regards to security and cloud computing. Cloud computing from a sense that we have so much now everything. Once everything has been stored in the cloud, so there is so much these are going through.

I learned, I heard somewhere there is this measure saying that the amount of data that traverses the internet is like 4,000 [inaudible] bytes. And I tried to understand what's a [inaudible]

byte was, and heard this guy that said it's like you pile in books from here to Pluto and back, 80 times. That's what the amount of data that has been traversing over the internet.

So, it's a really big problem when it comes to security and privacy. So, now we have, this security issues now bring in more things for us to think about. Security issues like now, like for IOT, we have this public perception that IOT is just like many people have pointed out earlier, IOT… So, many people have different opinions saying IOT is not good because there are so much problems with security, and nobody, or many people wouldn't want to have their data, or their stuff being just thrown on the internet, because it creates public profiles and all of that.

And now, and the vulnerability to hack and being hacked, because most IOT devices are not really secured, and don't have that level of security. Basically, I think one reason is because most IOT devices are really small, and there is no way to actually embed security within their really small capacities.

They will also face the privacy issues like some of these that I said before, and public profiles with all of these things created, because if we have things being connected to the internet, definitely they're going to be sending data across the internet. So, you just have so much data and people can actually

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eavesdrop on this data and we can be hacked. Okay? Okay. All right.

So, I'll have to just flash through the slides. Okay. So, for all of these problems, there is no simple, there is nothing, there is no one that we are solving this problem. So, we have difference, we have to approach it from different points.

I think one way [inaudible] where we have end users and companies alike, and organizations, that sticks to [inaudible] resilience and that are talking principles, maybe apply [inaudible], there is virtual look at area networks within their companies. You can… What do they call it now? And have other levels of security within your own thing.

And I think it's [inaudible], because so many people are not [inaudible]. They really need to know that IOT or cybersecurity has so many risks, and we need to take precaution as regards to that. There is this Latin phrase I heard, it says, [foreign language]. If you want peace, be prepared for war. Threats are everywhere, and what you don't know can harm you. Thank you.

[APPLAUSE]

DEBRA: Thank you. Are there any questions?

UNKNOWN SPEAKER: Good morning. That was a brilliant presentation. [Inaudible] like all of the concerns you've raised. Unfortunately, IOT, the biggest threat it has like to security is the inability to patch vulnerabilities. You have like, in a home, you have like eight or 20 devices connected to the internet. If a vulnerability is found in one, it's difficult [inaudible] that device, or actually patch it up with software that would be able to like update its operating system.

Basically, these IOTs are less manufactured, and there is no updates that have been rolled out, like the way we received updates on our mobile phones for [inaudible] applications. But in the area of IOTs, all devices are just like sent into the market, and no any favor update or security what check is done on them to find out like, are they performing to standards?

Like you've just mentioned about a mass hacking that probably happened a year ago. Was it you who mentioned it? Yeah. Up to now, the easiest thing that people are doing is to recall those products, and push in new products, but if like here in Africa, you've seen like the cases where [inaudible], maybe out of some small problems, but have you ever heard of [inaudible] from Africa?

UNKNOWN SPEAKER: No.

UNKNOWN SPEAKER: It's the same thing. It's easy for them, for a device to be called like from Europe, but not from Africa. And if even it was to be called, we have issues of vulnerability and what information in Africa, how do you even get the information to say, this device has [inaudible], it has to be called. Probably others get those which have been called and ship them to Africa, and we continue using.

At the end of the day, some may find themselves in corporate organization, in banks, instead of locations. We end up exposing those organizations using those devices to [inaudible] and more security vulnerabilities. Thank you.

UNKNOWN SPEAKER: Thank you for your contribution, sir.

UNKNOWN SPEAKER: Good morning. My name is [inaudible]. I am from NPOC. Here first thing, for your presentation, it was very interesting. Now, in NPOC we are talking about cybersecurity things, right? And we are talking about cybersecurity and of course, IOT. But the question will be, how we from inside, from ICANN, can we help

this kind of conversation, not for profits, or end users, or anything to improve their security things?

In order to implement IOT things, IOT devices, or something like that. Thank you very much.

UNKNOWN SPEAKER: Thank you so much for that question. Personally, I think basically, for example, in Africa, we have problems with information, that's a very big problem, and awareness, I'm very aware that ICANN us here, and most of us are actually from the content, but I personally I think if we can get more participation, for me that will be a really good step for us to actually build, because I really notice that, I don't know how much like, it was being said yesterday, I don't know how much ICANN puts into this program, but I would really appreciate if we can get more participation from our end.

And secondly, I talked with, I think, Mr. Dave yesterday, and we had this discussion about how some, okay, how some... For example, the SSAC has been close to outside [inaudible] when I came here, I was really interested in SSAC. And I heard they had closed door sessions. So, for me, I think there is some kind of information I would really love to get concerning so that I can take back home with me.

So, how ICANN can help us to guess this kind of specific information as regarding security and stuff like that? So, ICANN can really help with that, but it creates more forums for us to really understand particular topics, I would really appreciate that. So, for me, I think that's a few ways ICANN can really help that on the inside. Thank you.

UNKNOWN SPEAKER: Thank you.   Actually, I have another question. Thank you for your presentation. It was very nice, and actually it was excellent. But I have a question about awareness thing. How…? From your perspective, from your point of view, how do you think that awareness, you mentioned something like…?

UNKNOWN SPEAKER: Yes.

UNKNOWN SPEAKER: You have to increase the awareness about security. How do you think that should be increased? And is it healthy to increase something like things in schools and universities? And to make it something very big, or to use only in companies and private sector, and how do you think…?

UNKNOWN SPEAKER: I think knowledge is power. And from every little sect, I feel the… It depends on how technical the sects are. I think in organizations, they should have workshops and things that really expose people to these dangers of security and everything. And I think in our local communities too, that's one thing I'm here for. I also really know how I can start up something in my local community, that's probably ICANN related.

I can use as a medium to disseminate this words of information concerning security and other concerns. And also I think, peer to peer works a lot. Peer to peer, like talking to people. And I think it's very safe to tell people about what they don't know that can harm them, because I feel if we don't know about these things, they just affect us, and we don't even know.

For example, bot nets, like I mentioned earlier. The system is being controlled by someone, and you don't have an idea that you're actually being used as a medium to perform a hack or something. And I think it's really terrible. And I think we can do more when it comes to awareness as individuals and [inaudible] as a community.

UNKNOWN SPEAKER: This is [inaudible] for the record. Sorry, next. Thank you.

DEBRA: Okay, thank you. Okay, let's move on to our next presenter, Josephine [Air].

JOSEPHINE [AIR]: Thank you. Good morning everybody. My name is Josephine [Air]. And it's fantastic to be here. And it has been a really educational couple of days so far, so thank you for having me as part of this great program. So, first of all, I'm not going to use too many TLAs. Does anyone know what TLAs are? It means three letter acronyms, and it seems that ICANN likes them a lot.

So, I'm going to avoid those today. So, I came into this process, feeling like a little bit of a fraud. I'm not technical, at all. And I don't have much of a background in policy either. So, I thought I would take this opportunity to look at my journey and what brought me to where I am today, sitting with you guys, all of you intelligent people that use words that I don't understand.

So, to start off, when I started my career, I was working in London, and I worked for an Africa focused, communications and management consulting firm.

I think people can see it, so it's not a problem. My overall job was to change the perception of Africa in the Western press, no small job. It was, let's say Africa did have a PR problem back

then. If you look at any of the newspapers, any of the websites, Africa was reported on as if it was just a continent that was war-torn, that they had famine, and also we all here know that that's not the case, it's not the full picture.

And it was my job to try and change that perception. And I did that by working with a multitude of multinational companies, looking at investing in Africa and some African governments as well. And although I was passionate about the end goal of what I was wanting to achieve, the way of getting there didn't always leave me filled feeling very comfortable.

I was called a hack, a spin doctor, and those were the kind things that I was called at the time. So although I think I was relatively good at it, it didn't always feel right. But then I started working with internet companies and with mobile companies in Africa. And I realized that promoting the internet in Africa, did feel right and hereby, it started my love affair with the possibilities of the internet in Africa.

And there was great promise. There was a promise to open many doors to increase democratic conversation online, for people to have their voices heard, for businesses to innovate, and for people just to connect. And this was all fantastic. And the promise was kept. It came into full fruition. In 2013, 43% of

Kenya's entire GDP went through [inaudible], which is Safari com's mobile banking service.

And smart phone adoption, it was huge. The adoptions continued to increase over the past five years. And this enabled many businesses to innovate. But more than the opportunity that this gave to businesses to innovate, and for entrepreneurs, it allowed people to have their voices heard, sometimes for the first time. And this was fantastic.

More so, it allowed people to hold their leaders to account. But, like any great love affair, it's not without its conflict. And we've also been seeing the dark side of what the internet can bring us, as a tool. And it's important to realize that none of these things are because of the internet, none of these negative aspects can be blamed on the internet.

But it has provided a different way of these slightly less pleasant things to come about. For every few thousands new smart phone adopters, there are at least one website that is setup for the sole intent of malicious misinformation. For every Doctor Without Borders who tirelessly work to stem the spread of Ebola in West Africa in 2004, there was another news story that said that Ebola was a fabrication by the CDC and other parties.

And as the plot thickened on the story of state capture in South Africa regarding the [inaudible] family, it appeared that

[inaudible], a UK based PR firm, with the account director of this lady here, Victoria, had created a fear campaign to divert the public attention away from state capture, and toward a story of white monopoly capital.

And [inaudible] and Victoria did this by using Twitter bots, by using fake news sites, and through other avenues as well. And all of this is very concerning, but on a personal level, the most worrying thing for me, was that that could have been me.

And don't even get me started on Brexit and US election. So, why should we care about this and who should care? Well, everyone. I think we all have a responsibility, and I believe that we can all be a little bit careful about what we share on social media, about its sources, about how well researched it is.

Facebook just last month, announced that they were hiring 3,000 new people to look specifically at harmful videos, harmful posts, and this will include, of course, fake news. And more and more, there are fantastic fact checking websites popping up across the continent, which is great. And what can ICANN do?

Well, as the organization that manages the registration of domains, it could look into the possibility of how private should registrant details be? How open should they be? But herein lies a paradox. Now, I would like to say that this particular slide is quite simplified, that it's an exceptionally complex issue, that we

certainly don't have time to cover today, but it gives you the overall view of how paradoxical this situation is.

So, if registrant information was open, was fully open, let's say, it would provide us an ability to identify people that were setting up fake news websites. It would be able to ensure people were accountable for what they were saying online, which could, in theory, lead to a freer and fairer internet.

But on the flip slide, in areas where there is not fantastic freedom of speech, and certainly in certain areas of Africa, that is the case, this particular setup may cause people to be less at liberty to share their voices. And they may fear the consequences of doing so.

And in this case, this would lead to less diversity of voice, and a less democratic internet. So, I suppose I end here with more questions than answers, but although I'm not technical. Although I'm not a lawyer, I am deeply passionate about the internet, and I think that ICANN has a fantastic opportunity to look at some of these issues, and really drill deep into what we want the internet of the future to look like. Thank you.

[APPLAUSE]

DEBRA: Thank you, Jo. Are there any questions?

UNKNOWN SPEAKER: Hello. My name is [inaudible]. I'm from Niger in West Africa. So, coming to this issue of freedom of speech. It's really, really important to know what is the value of speech in a society? It's very, very important to know what are the value of the things before coming to its [inaudible]. Some years ago, the core source of information about Africa. Is the radio, maybe most of the people doesn't know.

During this time, it's very, very important, I got a lot of information about South Africa. Do you know they manage, let's say to [inaudible] everything, you know, by this time, what they are talking about INC and others, [inaudible] it is about terrorists, you know?

We head a lot of, but now, you know, there is... I think that is the same, it's the same print. The only thing that changed is the speed of information. And the other less important things is about the opt in, the opt out. By this time, you had no way to hear about something about the South Africa without going through the radio.

Now, you can. You can have other channels. But don't worry, everything is about controlling information. If you control the information at the national level and the commercial level, or

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even at the local level or family level, you get a big power. So, this will continue.

But, I don't want to say freedom and control. I want to maybe let people think about, what about auto control? When can you put…? This is my question. Where can you put auto control to avoid freedom? Where is this control? Thank you.

JOSEPHINE [AIR]: Yeah, it's a really interesting point. And I think that the big thing there is, it has to come down to education. And I think the people coming into the workplace now, have a responsibility to actually continue to teach young people coming up, and actually, it should be in schools. I know some of my fellow NextGeners are looking at education and digital literacy.

But people need to be aware of the kind of information they're sending out, and the impact it may have. And I think that by doing that, by allowing that be a conversation, but for people to be responsible for what they're saying, I think that is the way to go.

UNKNOWN SPEAKER: Hi, Jo. Thank you for your presentation. My question is a bit more democracy and the idea of democracy that we have, and then [inaudible] the democracy comes. I only have the

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perspective and the experience from Latin America, where we also embrace technology very passionately, and our governments as well. And in the beginning, everyone was very happy and enthusiastic.

And then when we get back, and look back and analyze it, we see that some of these spaces that we've created especially between civil society seats and then government. It created a false perception of participation. So, it creates a false perception of direct democracy and the deliberative processes. This can be, of course, deliberate, or it was just a failure among the, during the process of developing this new spaces of interaction between society and government.

So, my question to you is, do you think that we should have more of these spaces? Should we improve them? Or should we think about a mix between connected and unconnected spaces of democracy and participatory processes that technology can enhance or can bring some damages?

JOSEPHINE [AIR]:   Yeah, that's a great one. Yeah, I mean, I've seen in Africa, for example, I looked quite closely at some political leaders and how they were using social media to quote/unquote communicate with their citizens. But in actual fact, it's not really communication if it's, well, it's not conversation if it's one way.

And that's, I think, what it comes down to if it's our leaders actually wanting to create dialogue, or are they just wanting to tell us?

Are they just wanting to broadcast? And unfortunately, but it's just the way of the world that I think it's the latter. So, to answer your question in a kind of non-specific way, I think it's very important there to be as many open forums as possible, both online and offline, and let's face it, nothing is really ever completely offline these days. And ensure that these processes do hold people accountable, and do hold our leaders accountable.

UNKNOWN SPEAKER: Thank you to be given the opportunity to put a question, it's my observation. [Inaudible]. I am the legal advisor of AfriNIC. Those who know what AfriNIC is, but I don't speak for AfriNIC now. I speak in my own capacity as a practicing lawyer in the field of communication law. I come from Marcius. I have my own chambers, and I work as a consultant for AfriNIC.

So, what I'm sharing, this is my own experience. In terms of my chambers' work, I advise radio stations in Marcius. And one of the last problems I had to deal with it, for local radio plus, before coming here, was that we parallelly, the radio station, we run a

website, where we invite people to exchange all things they want to.

And what we got last week or the week before, another website copied almost all of our website, the radio station's website, and started indulging in hate language, and racist language, and [inaudible] multicultural society. Really damaging to the individual radio station, and also was [inaudible] potential for creating public disorder problem.

So, [inaudible] came to me for advice, what to do. So, what we did, I drew up overnight, a notice for the press. We have a press at the same time, we're under press paper, and for three days, we put the notice there, it stood there, but the website still went on. The website, in fact, [inaudible] by our notice to be removed, [inaudible] to be move insulting and inciting people towards hatred.

So, the question I ask, in fact, though being a lawyer, we don't have an answer, a legal answer, because we told the person, if you do this, we go to the police. If you do this, we sue you for damages. If you do this, we'll try to get to you personally as well. Or, we get the authorities to get you offline. But it didn't work. Just to impress upon you the fact that having laws doesn't solve the problem, because the law comes after if they ever have something which has been done.

So, my good friend from Niger was saying about the auto-regulation, auto-control, and this is education. Apart from educating people, you will not [inaudible] rid of it. At least to get it down. So, the problem is complex. [Inaudible] to your talk, I held up in something else, but it is a topic which I really enjoy talking and discussing about, since I have the advantage of having so many young people around me.

I'm a grandfather. So, I'm telling you please, the law is not going to be resolution, if you do something wrong, or you are the victim of the wrong doer. The website on which you write, or you engage in discussion, is not going to help you. It must be self-help. If you don't do that, you find yourself closing in your darkroom, well shut, being anonymous, thinking nobody is watching you, nobody is going to know what you are going to do, everything is traceable.

So, you are in the front facing problems, if we continue. But as [inaudible] said, the dark side of the internet is there. But should we just say it is there and not do something to remove part of the darkness? Let's get an eclipse instead of a full darkness. Thank you.

JOSEPHINE [AIR]: Thank you for that. Guys, I think we've got our work cut out. Yeah, spot on. I don't think we're ever going to get rid of it, but

through having the dialogue, through a lot of education, and through people being accountable, hopefully we'll get somewhere.

UNKNOWN SPEAKER: Thank you, Jo. I really liked your presentation because I can relate. I'm not technical, I'm not legal, but I find myself in a very intimidating space. But I also find that when you start to speak about accountability, you need to be able to respond to issues about who is accountable to who, and to what extent? And to also define the type of accountability you're talking about.

Who would a registrant be accountable to? And then, I'm happy that you're talking to levels of censorship and state actors, and I think when we begin to talk or contribute to policy conversation at ICANN, relating to, especially to accountability.

We need to be realistic, which why I'm also interested in hearing the extent to which you would see registrants being accountable to particularly the state, because there is a lot of political accountability that people don't get online, from their governments, which is why you find that they look for the protection online.

Then my last issue was issues of jurisdiction. So, if we're going to talk about a registrant being accountable, and they're

probably not registered within a certain country, what do you see that sort of accountability looking like? Because, for instance, I come from Zimbabwe, and we have quite a number of website or people whose content is hosted outside, and have gotten away with a lot of stuff, which our government feels they should actually be accountable for.

So, I think just to bring [inaudible] around what sort of accountability you're talking about. Who is accountable? Who are they accountable to? And what are the limitations to, you know, continuing to protect free expression? And also just, you know, rights to privacy as well.

JOSEPHINE [AIR]: Yeah, thank you for that. Of course, yeah, I think when we sign up a domain name, we have a contract to the registrar. You know, we're not in agreement, necessarily, with anything that the government is saying or any other actor. And my answer is to you, I do not know at this stage, but I'm hoping that by getting involved in some of the conversations that are already happening, I know there is, I joined the meeting yesterday on the URDS policy, and it's a minefield.

It's so complicated. And I think that the point about accountability is a really important one, and one that I'm going to have to look at really closely as I go forward.

DEBRA: Thank you, Jo. Very good presentation, clear and concise. Okay, let's move on to our next presenter. [Inaudible].

UNKNOWN SPEAKER: For a second I thought it wasn't me. Thank you so much for this opportunity. I have a really big voice. I'm going to try and hold everything all at the same time and do this. While that is being put up, a good morning to everyone here. My name is [inaudible]. I am from Cape Town, South Africa.

And I'm a social entrepreneur, focusing on youth development. I am from an organization called [foreign language] Youth Development. And [foreign language] is Swahili for Empower Them. Empower Them. And that is what I want to talk about a little bit today, as you'll see throughout my presentation, as I take a look at the multi-stakeholder model, but I'm going to put a bit of Africa in it.

Okay. My title is as follows, an [foreign language] centered ICANN multi-stakeholder model. Essentially by challenging the parameters a little bit, to a strategic injection of the youth population of Africa, for Africa, right?

So, why youth? The population of South Africa, as a matter of fact, Africa is a young population. If we look specifically at South

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Africa, 66% of South Africa for under the age of 55. That is out of 55 million people, a staggering 53 million people are below the age of 55.

Now, if we take a scope outward, and we look at the continent, we say, in South Africa, we have 66% under the age of 35. In Africa, 65% of the population, according to the UN, fall under the age of 35. So, Africa, in essence, is a young population.

So, my question is, are we really monopolizing on this as change agents in Africa? More specifically, as change agents in the internet space? Are we monopolizing on this?

We need to remember that ICANN's strategy is to ensure a single, open, and globally interoperable internet, while promoting competition and developing policy on the internet. Good. Are we able to do this without a strategic injection of the youth population of Africa? And making sure that in all ways, that the African voice is pronounced and heard in every ICANN space?

I want you to take a look at this picture, to give you a visual of what I'm about to present to you. And it's the concept of [foreign language]. [Foreign language] is actually cultural concept grounded in Africa. As a matter of fact, it comes from the [foreign language] culture. Let's go further.

What does it say? It says that I am because we are. And because we are, you are. So, I am [foreign language], because my community, we are, Africa. Because we are Africa as a community, you are. Your existence, you are, because of who you come, where you come from. We are [foreign language]. So, how does this play into ICANN?

What is the relevance? And why youth? I want you to look at this quote, and I'm going to focus specifically on the last bit there, but I'll read the entire one for you. Together, we have the opportunity to bring a real technological freedom to every part of the world, across multiple devices, and the cloud, and clothed in an elegant, beautiful experience.

It is a bold vision, but a greater strength in [foreign language] is our community, and together we can do this. I want us to focus specifically on the last bit of that quote. Yes, it is a bold vision to inject the youth. Yes, it is a bold vision to say, Africa, you need to be more pronounced in this conversation.

And to say, ICANN, we are here. However, our greater strength in [foreign language] is our community, and together we can do this. ICANN believes that its greatest strength is its community, surely together, we can do this. Before I move further, please note because I note that this room is full with technical people.

I am not referring to [inaudible] Linux. No, not the operating system. I knew it. I knew it. I'm not referring to the operating system. As a matter of fact, that operating system is grounded in the cultural concept and principle of [foreign language], which is community, which is I am because we are, and because we are, you are.

So, how can we do this? How can we realize this? Because I want to be solution focused, and not just problem focused. I thought of having an ICANN, this is a very long word, an ICANN youth multi-stakeholder simulation incubator run by the NextGen. I'll say that one more time.

An ICANN youth multi-stakeholder simulation incubator run, emphasis on run, by the NextGen. The next generation of the internet space and the development, globally, and not just in Africa. So, this was my idea. What if we could have an incubator simulation? Simulation in the sense of, the multi-stakeholder model taken into the NextGen structure.

Not the NextGen structure as in the program, but as us in the bodies of the NextGen. We all have various interests that speaks to various areas of the multi-stakeholder model. And we come from communities. So, when we step into this space, this simulation, we are the embodiment of the multi-stakeholder model.

So, why not have, as if though having a separate working group, with dynamic young generation, or next generation individuals, grappling with the very issues that come from the community, and the context of Africa, and what we face when it comes to developing the internet space and a digital culture in Africa. We talk about those things. We bring…

Instead of coming to ICANN, and entering this space which the Fellows and all of those are in, as one person. No, we come… Yes, we are one person, but we end up standing as one million. The one million, or the 33 million, that we represent. So, we table the issues and we grapple with the intricacies and when we go into policy spaces, when we go into other working groups, represent the 33 million.

We literally then go and bring the voice of the youth. But how can we connect the two? The structure that I'm presenting also the simulation, doesn't start at ICANN.   It starts in the community back home.   So, whatever you learn here, you become a portal of communication. What we learn here and what we bring here, because remember, it's a community.

We are because of them. Because we are, they are. So, it's a continuous cyclical process. But it's dynamic and it can work. So, we come one or 33 million, bringing the policy and understanding and presenting the voice of the youth.

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But in order to present the voice of the youth, we have to have brought the voice of the youth. So, back in our communities, we present ICANN, we present the dip thereof, ensuring the strength of the internet, and making sure that those that we are connected to, understand the power of the digital age and of the internet and exactly how it can further them.

There are many other ideas, which I'm sure I can share with you later on, but not right now. Why do this? How is it going to help at all? Well, actually, it speaks to realizing the ICANN 2016 to 2020 strategic plan in three ways, which I will share with you. Remember that the ICANN strategy also speaks to globalizing the internet and the ICANN structure. Literally, that is what this can do. And it also speaks to evolving the agenda of the ICANN.

This is literally what it would do as well, because of simulation incubator. More than that, and more specifically, it speaks to the bottom up approach that ICANN is promoting. And then to close off, most importantly, because we can never forget where we come from, this will ensure that the heart of Africa, its youth, serve, grow, and unite in an innovative way. Thank you.

[APPLAUSE]

DEBRA: Thank you. That was very dynamic. I loved it. Any questions?

UNKNOWN SPEAKER: Good morning once more. Mine is not a question, it's a slight recommendation. Her presentation actually speaks to the inner heart of most [inaudible] that is using her own model, which is described. I think we should think, we should deeply think of what, we should think deeply and think of, think through to what she just like presented to me.

It's picks like their side of things we try not to see, but she's speaking out of her heart. She's explained things, which calls for introspection. We need to question our [inaudible] in the way we engage in the multi-stakeholder environment. Thank you.

DEBRA: Questions?

Okay, if there are no more questions, we're going to take a quick 10 minute break at this time, and just stretch our legs for a minute. So, let's see, it's 10:13, so just 10:23 come back and we'll resume. Thank you so much.

Okay, everybody, if we can start coming back to our seats now.

Okay, everybody, we're going to continue on with our presentation, and our next presenter is Nelson [inaudible].

NELSON: Yes. Hi everyone. As Debra said, my name is Nelson [inaudible]. I'm a tech entrepreneur. I own a small startup business in Nairobi called Web For All. And my Twitter handle is Nelson [inaudible] at Nelson [inaudible] one, one. If you want to Tweet me.

And yeah, so, not unlike my other presenters, I'll be talking about internet shutdowns. I think we should shut down the internet right now, just to be more [inaudible] to this topic. I'm just kidding. So, I'll just try to highlight internet shutdowns in terms of why they happen, how they happen, and also the threat that it poses to the internet, [inaudible], and what we can do to avoid that.

My slides will have a lot of data information, but I think this is a very informed audience who know how to Google enough. You can go and research the information, or just go to my points later on. So, what is an internet shutdown? So, whenever we're referring to the term internet shutdown, it's not just when the internet goes off.

Most of the time, we are [inaudible] to internet shutdown happens when someone, usually a government, intentionally disrupt the internet or mobile apps to control what people are saying or do. This usually happens, can happen [inaudible], like some social media site being blocked, or it can happen as a total

shutdown, what we call, in technical jargon, the kill switch, like the whole, an internet in a region or in a country is shutdown totally.

Just to bring you, to give some statistics. All of this information can be found, use the hashtag keep it on. That is the organization that documented this so you can find all of this information. So, in 2015, we had about 15 documented internet shutdowns. In 2016, we had 56 documented internet shutdowns. And that is really, sorry to echo…

Like, a lot of us were talking about progress, this message does not communicate any progress here. And Africa actually has like, like proportionally, it has the biggest share of this. We look at countries like Czech Republic, Uganda, Ethiopia, [inaudible] Libya and the rest. So, I come from South Sedan.

This slide [inaudible] just for publicizing my country. I come from South Sedan. It's like one of the newest countries in the world. We got our independence in 2011, and the infrastructure is really, really low. Most, we don't have any fiber in the country, so most of the connection is through satellite, as you can see there.

So, why internet shutdown? Why is it happening? So, this are the reasons that are cited by some governments or by some authorities. Like in the Ethiopia example, it was just like to stop

students from cheating in the school exams. Sometimes internet shutdown happens to reason like some governments will try to punish certain companies, or apps, or certain applications that they view violate their authority.

At times, it also happens because governments claim that they want to prevent terror attacks during public holidays. Some government shut social media, like in the example of Uganda, I think what's happened on Facebook, Facebook was shutdown because during elections, for reason I think to prevent the spread of rumors online.

And these things, and there are many, many other examples that happen. How does it happen? Ultimately, the decision to take down drastic measures on a country's internet traffic, rests with, it is government. These decisions are made by the governments, by people in authority.

The three points that I listed there, this kind of just shows you how we get into internet shutdowns. First of all, you need to have a government that has a mode to shutdown the internet. I think you don't have to look very far to find that. Also then, you need to have the capability. When I refer to capability here, I'm not referring to technical capability, but I'm referring to the aspect of where in a country, the government actually, there are no laws or structures or ways that will prevent it from asking an

internet service provider, or an ISP, or an internet exchange point, to shutdown certain applications.

The last thing which is the deterrent, so if you don't have deterrents, if you don't have an active civil society, or you don't have mechanisms, or autonomous institutions, that can run things without getting pressure from the government, if you don't have such deterrents within the country, most likely you'll lead to internet shutdowns.

Now, let me talk about [inaudible], like what are the kind of, what is the cost of an internet shutdown? We have economical implications. I think need to state this, or to emphasize this, but whenever they shutdown the internet, companies and private citizens, and also private institutions, lose a lot of money on that.

It even disrupts our livelihood. A lot of us have our calendars, our email. Like, most of our lives run, or to some extent, is connected to the internet. So, it disrupts our livelihood. And also, we have our trust in the democracy itself, it's jeopardized by internet shutdowns.

And the last point I just want to go through, which is the internet model, which, I'm going to echo this in my last slide, I'll just keep it here. Let me call this, the mother of all internet shutdowns. I'm referring to a news item. So, like in this year, 2017, and

internet was shutdown in [inaudible] in two regions there, for 93 days.

There was a total internet shutdown in that region. This is not in the statistics because it happened this year, but it's something that all of us knew, and [inaudible] to bring back our internet campaign. Internet shutdowns have a lot of impact to our lives, but like the few things that I view as like very dangerous to the internet as we know it, which is the internet model.

Shutdowns are by nature, very unilateral in the decision of shutting down the internet are very unilateral. I don't think the government will call all of the stakeholders to sit them down and like, can we shut the internet for two months? What do you think?

Like, I don't know if your government does not, but it's really, most of the time, it's a very unilateral decision. And that is very harmful. And that's why I want to talk about the internet in variance. There are about eight of them, or more than that. So, internet in variance are, there is a paper published by the Internet Society on this issue, you can Google it.

About eight or nine fundamental points that don't change. The unchanging nature of the internet. And I think they've remained constant since the internet was created and up to now. And for

the internet to work the way we know it, all this variance must exist. One of them is global reach and integrity.

That means, any point can communicate to any point in the internet, and also the data being sent should arrive the way the sender intended it. And then also, we have general purpose. The internet is capable of supporting a wide range of demands and issues.

And also, we have the internet is for everyone. That's why you say one internet and one wall. So, and then we have to support innovation without requiring any commissions. You look at what's up. You look at Facebook. Most of these companies are created in dorms, garages, bedrooms, without the need to consultant anyone about what you are creating.

And then we have accessibility.   Anyone can get onto the internet. What happens with internet shutdowns? It's like, you know, it's an immediate third of us losing money and one, but sometimes, we get used to it. I live in Nairobi, and in my apartment, like last month, there was no [inaudible].

So, there were sometimes like 12 days, there is no water. And then it comes on the weekends. In the beginning, it was so [inaudible]. But what I realize, in a very subtle way, after three weeks or so, I kind of got used to it. Like I know… Like, yes, it affects me, but I can't, I started to adopt to the situation. I think

we might reach to such an extent, if we don't stop, if we don't resist internet shutdowns.

You might hear things like, okay, kids, download all of your things before the internet gets shutdown in the next three days. Or things like, okay, sorry guys, this is a notice, the internet is going to be off during the next election. And in a very subtle way, we might get used to that. And that's the most scary possibility, for this matter.

I'm just remaining with one minute. How can we avoid it? What are…? The suggestion that I'll make here is like, we really need to create a lot of awareness. We need to tell our governments about the multi-stakeholder model. We need to tell them, quote/unquote, who owns the internet, which the answer is, no one.

We also need to keep advocating for internet awareness, and openness in this space. And also, we need to keep [inaudible]. I think my legal friends will tell you the difference between activism and advocacy. I need not to delve on that.

The next thing is like we really need to bring more government services on the internet. If your government has, is collecting taxes through the internet, if the government, if the visa application is through the internet, if most of the government

services are on the internet, the cost benefit analysis that governments have to do before shutting down the internet is…

Like, governments will have to consider more things before shutting down the internet. The last thing, which is very, very important, and I also highlighted it earlier on, is like whenever governments take unilateral actions to shutdown the internet, what they are doing, either knowingly or unknowingly, is disrupting the multi-stakeholder model.

It's taking action without consulting any other stakeholder. And this way, the whole model that ICANN works on, and most other supporting organizations, I'm talking about the ITU, or the Internet Society, and the rest, this model gets disrupted.

Can you imagine if the US government shuts the internet for like three days? Google, you can't access Google, you can't access PayPal, you can't access Amazon. You can't access all of these services, and this can have a global impact. Right now, in small countries that don't have a lot of infrastructure within the country, can shutdown the internet, and few people read about it. And nothing much happens.

But when this country get advanced, and we have a lot of data and critical information hosted within the country, and even we have outsiders visiting this, trying to access this information. This internet shutdowns get to have a more global catastrophic

impact. And that's why, making this appeal here, that let's consider engaging in a more multi-stakeholder discussions, and bring more people into the room, bring more government into the room, and talk to them.

And try to address this concern in a more wider manner. And thank you for your attention. Yeah.

[APPLAUSE]

DEBRA: Thank you, Nelson. Are there any questions? There are questions in the audience also.

JOSEPHINE [AIR]: Hello. Hi, it's Jo. Fantastic presentation, really interesting. It touched on some really important areas. Just from my experience, just going to give an example. So, last year, for example, Zimbabwe and government shutdown not the entire internet, but they closed down social media, and they closed down the company I was working on at the time, Opera, Opera Mini.

And this was down to, they said there was a leak. You mentioned it, in terms of a school exam paper. However, any student who wanted to, could still go and find it on Chrome, on

Safari, on FireFox, on any other browser. There is clearly a lack of, I think, knowledge there in terms of how people can actually find information online.

What do you think is, I guess, the solution to that in terms of the government knowledge?

NELSON: I think whenever we try to address these issues, you are in a very indirect, in a very, as kind of implicit way you're asking the questions of what is the internet? And then furthermore, you're asking, is the internet a public good, i.e., is it like, electricity, air, water, and all of the rest.

And that's a very huge debate. People have written papers about it. I don't want to go that way. But I think really, the keep point, that's fine to tell governments, it's like, the internet should be considered the same way as air.

If you have air pollution, you don't go like, let's shutdown air, because there is air pollution. If we can drive that point, I think government will realize. Or, it's like water. If you have contaminated water, or you have issues of people misusing water, you don't say like, let's shutdown water in all of the city until we figure it out. Someone might think like, what do you see? Like shutting down air? You can't do that.

But the same way with the internet, just because we don't have the ability to do it, we shouldn't do it. And I think we need to push, we need to try more, advocate, and trying to make government understand that internet should be considered the same way as air, or electricity, or even water. Yeah.

I don't know if that message can be made very simple to governments.

UNKNOWN SPEAKER: Hello everybody. My name is [inaudible]. Great presentation there. I think, just on the last section about what can we do to avoid it? I think what's missing for me is accountability frameworks, because we could advocate. We could bring awareness, have activism. But if we can't measure as to how far that is going, then it might not really, we can't really see where the progress in that, right?

So, it is us and also for governments, because if government knows that they have to report back on why they did something, or whatever it is, then I also think, you know, that it might be difficult for them to just have an impromptu internet shutdown. So, that's one point.

And then the last one is, I would like to ask… So, there is a lot of focus around governments, right? But I think internet

shutdowns would not be possible if internet service providers did not allow them to happen. So, as much as we're putting the blame on government, correctly, you know, while doing so, but I think we need to be as tough on ISPs as well. That operating in these countries and allow these things to happen.

So, that's for me, one aspect that is also missing in this discourse of internet shutdowns as a whole. Thank you.

NELSON: I totally agree with the points that she raised. One thing about ISPs, I don't speak on their behalf, but most of the times, ISPs run between being [inaudible] and semi [inaudible] at the same time. We might consider them to be the reason, but they really have a very crucial business, like they want to run a business.

And at times, there are certain countries [inaudible] regimes like so, so tough. What I will… What other points that we need to also push, is like really regional policy level discussions. So, if I know because African Union, [inaudible] community, if such… To some extent, high level authorities can try to harmonize the [inaudible] framework to such an extent that ISPs can have the same, to some extent, very, very uniform regulatory framework within this different countries, that will really create a very good framework, for example.

Like, Ethiopia, there is only one ISP. I don't know how [inaudible]… Yes, it is right, it is all the [inaudible], but at times, it is, yeah, [inaudible].

UNKNOWN SPEAKER: Hi. My name is [inaudible] from Milan. I'm a member of the ICANN Board. And I want to start by saying, thank you very much. It's really a wonderful presentation, it's very inspiring. And I'm afraid I have to leave, because I'm going to my next session. I wanted to… I hope I can meet you all in the course of the week.

I wanted to, first of all, compliment you on your wonderful presentation. And I think the big challenge with governments is that they will always have political reasons, and argue that for whatever reasons, they need to shut these down. And I think that when it comes to activism, many governments are simply not impressed, unless the activism is organized in such a way, that they're actually going to lose power or lose votes.

I'm speaking also because I used to be a member of Parliament, so I know how politicians work. And I would encourage all of you to be extremely ambitious in engaging with governments, joining politics, becoming, you know, leaders of your countries, because you know, what is really needed is a change of mind

whereby politicians need to start to understand how the internet works.

And I want you all to engage in the multi-stakeholder model, I would love to see you all in leadership positions, you know, in the years to come. We need more Africans on the Board, more young people on the Board, more women on the Board. So, you know, make sure that you don't put your ambitions too low, but I think one of the other things that governments all around the world need is people with vision and who understand the future, and who understand the internet, to actually be part of government.

So, my question to you, is would you be willing to be South Sudan's next minister of telecoms?

NELSON: It's… Yeah, that's a very direct question. If it is next week, no, because I have some contracts I need to finish before next week. But yeah. I like, for me, I [inaudible] with my friends and everyone. Make no mistake, if you want to amplify impact, people seek office not because they're just power hungry, but because of the power of an office.

The fact that you can put down a manifesto, the fact that someone can wake up tomorrow morning, and say that every

internet service provider need to provide [inaudible] and everyone does it, such a power. No startup can do that. Even ICANN, or even Facebook, can do that.

And that, the change theory in such a way, if you can sell an agenda, a good one in that sense, to a whole country, why not? I'm all for it. Bring it on government.

EVELYN: Thank you. I'm Evelyn [inaudible] from Uganda. Inspiring presentation right there. I'd like to just touch on what Yolanda said, I mean, most governments, especially, are very intertwined with ISPs, when you talk about power, most of the ISPs are the government. For instance, in Uganda, you can't separate the two.

If you say UCC, we need to shutdown the internet, it's literally like the government has said, shutdown the internet. So, when you have this parliaments, or governments, or states that are where the power comes from above, and whether you're an ISP, you have no rights on your own, you're not independent to make any decisions, it becomes very hard.

So, we have, like she said, to educate and young people coming in and educating about the internet is very, very key. And

another point I think we would also consider is shining a light on the governments that have kept on the internet.

For instance, if you look at Nigeria, and all of the issues they've had, you know, with all of the [inaudible] issues, they've never shutdown the internet. So, what are they doing right that other governments can learn from? I think we should take also, those case studies and learn more about them, and say, look at this government.

Everything they've gone through, but the internet is still on. How do we amplify that and make sure that the rest of the governments can also follow through?   So, that's food for thought as well. Thank you.

NELSON: I totally agree with the points.

UNKNOWN SPEAKER: A great presentation, Nelson, thank you.   Well, in Brazil, we didn't have a whole internet shutdown, but we had judges blocking What's Up for a day, two days, because What's Up doesn't comply with a court order, for example. And What's Up is now the main source of communication among the citizens. So, this is a point of concern. Like, maybe we don't have a whole shutdown, but we have a shutdown of critical resources.

And also, on like my contacts, my national contacts, Google, they release the transparency reports on the request for takedown content, and the number one request for takedown content in Brazil comes from government, from the government as well. So, my point is, what I think it misses on your framework that I think is fairly broad, is also the role of decentralizing critical resources, critical internet resources, like…

So I ask you, what do you think is the role of small ISPs, community ISPs, on avoiding the shutdowns? And also competition among internet services, like What's Up, or other critical communication services avoiding the shutdowns?

NELSON: Let me just make a comment about generally about competition. The more you have competition in the country, the harder it is to implement shutdowns. So, like in general, that's something that also goes to the regulator, if you can encourage, and also reduce the entry barrier. So, if we can introduce the entry barrier, that means more innovative ISPs.

Like in Kenya, we have now like very new, sometimes they don't even identify themselves as ISPs, but they provide internet. They're in between, very innovative. So, if you can have a more competitive… And like [inaudible], for example. There is one

telecom. I remember, a friend, he came tonight over to the [inaudible] hub. And one of my colleagues, I asked him, he was very naïve, he asked, what do you do with it? I work in the telecoms.

Like, which one? I said in Ethiopia. I said, like, is it a big one or a small one? The guy told him, it's only one. We are, we are the big one, we are everything.

If we… And that's why implementing such shutdowns is very easy, because there is no diversity and there is no those things. So, if you can have more on that, that will be very good. On What's Up, and the same applies also to Google, and to Facebook, and to the rest, like there is, you lawyers know this better, like there is a lot of issues of jurisdiction and such stuff.

And even Facebook faces that. At times, a judge somewhere says, orders Facebook, and Facebook… Where is Facebook? Is it even in the country? Does it apply with these rules? Or does it operate based on US rules? And this stuff. I think it's a more complex issues, but one thing I know for sure, is there is a vacuum for power, governments always take it.

If there is less activism, there is more control. If there is a very, very… If the Civil Society is not there, government will be your Civil Society. So, always when we leave vacuum, where we leave

areas, when we don't occupy our seat, control, someone will take it, and most of the time, it happens to be governments.

So, I really, the same way she asked me. I throw this back to us. We need to occupy our space.

DEBRA: Okay, we need to move on to the next presenter. Thank you, Nelson. We have exactly 60 minutes left, and we have six presenters left. So, we're going to be… Really, I need you to keep an eye on the time, 10 minutes each. Okay. So, [inaudible] is our next presenter.

UNKNOWN SPEAKER: Good morning. My name is [inaudible]. I'm from Zimbabwe. And I will be presenting on internationalized domain names. As you can see, it's about, do they increase access to the internet? The short answer is obviously, yes. And so, I'll just take you through what my presentation is going to be about.

So, just looking at domain names, the types of domain names, and then looking at navigating an English internet. What exactly are internationalized domain names? That's IDNS. And then looking at them in Africa and some of the emerging questions and challenges that I've identified.

I don't have a technical background, but it's an area of interest for me. So, I'm a non-tech end user, let's put it that way. Okay, and I won't dwell too much on this.

I won't dwell too much on this, because we all know, I assume, what domain names are. But the most important thing that I want to identify here, is that for me, domain names are work like translators, basically. So, they translate something that you don't understand into something that you do understand. Right?

And so, I'll come back to that as I make my point going forward. And then just quickly looking at domain names and how I structured them. So, we have our top level domain names, which is the end of a domain name, the dot org, dot com. We have generic top level domains, which is, as we know, dot coms, dot orgs, that aren't affiliated to a country.

Country code top level domains, the dot KEs, dot UG, dot ZW.

Okay, sorry. Sorry, translators. And then I put IDNs there, because actually they can be both generic or country code top level domains. They fit in both, so maybe, they should have been in the little bracket underneath them, but anyway, you get the point.

And so, just thinking about domain names, as I was saying, domain names are translators. Basically, they take that which you don't understand, and translate it into something you do understand. If we look at, I'm going to put this down.

If we look at some of the top languages spoken in the world, and this is from 2007 and a little bit of 2010, maybe the data has changed but probably not materially. If we look at some of the top languages spoken in the world, six out of 10 of them don't actually use the Latin alphabet, the A to Z that we know, the A to Z that we're using now.

And the zero to nine. And so, as we think about domain names, and them being translators, it only makes sense that if they're [inaudible] then they must represent more than the English language. Why is this important? If you look at the internet before 2009, we had only 12 languages represented on the internet, and 72% of the websites were actually in English.

And so, when we look at what languages people actually speak, that doesn't make sense, right? And so enter internationalized domains. And so, we have internationalized domain names, and they're 7 billion people in the world. So, that's a nice statistic for you. And so, we have internationalized domain names. What are internationalized domain names?

They're domain names that don't use the Latin script, or the script as we know it, the A to Z, that you see on the screen there, the zero to nine. They are domain names that are written in local script. So, Russian, or Arabic, they use different types of scripts, and that's what they are. And, as you can see, they actually have an impact.

So, in 2009, the ICANN Board approved this fast track process for internationalized domain names. And what it did was that it allowed for countries to submit requests to ICANN for internationalized domains and other script. So, some of the countries that applied for this were the UAE, India, Tunisia, Morocco, Algeria, Sudan. All of these countries actually submitted for IDNs.

And if you fast forward to now, with the new generic top level domain names, a lot of new ones are coming up, and more than 50 of them are actually internationalized domain names. So, these things are coming up, and they're having an impact. If we just look quickly at… Just a quick snapshot of the impact that they do have, before 2009, when we didn't have this fast track [inaudible], as you can see, the US had the most internet users.

And naturally, it's the English speakers, right? Anglophone. And then fast track to 2014, China is now overtaken the US. It's obviously less than 30%, but the US refusing to be left behind,

it's obviously second. But the Chinese do not use a Latin script. They don't use a Latin alphabet. They actually, their main language is Mandarin, which is a different script altogether.

And then just a quick example of what they look like. So, on the left is the domain names in Latin script, as we know them, dot org, dot UK, and then on your right is obviously what they look like in local scripts. Can't tell you what they all are, because I speak English, but yeah. That's what they look like.

And so, they are also, IDNs are also just coming back to the slide, as well. With the fast track process, there was also an implementation working group that ICANN has, and they look at some of the guidelines and protocols that you should follow when you have IDN.

So, there is protocol there. Internet Engineering Taskforce is also involved with creating protocols, guidelines, and policies for IDNs. So, that's important. There is a process that you follow.

But if you're like me, you're probably thinking, well, what does this have to do with sub-Saharan Africa, because we use a Latin script, right? And so, the two things that I wanted to point out here of why I actually was intrigued by IDNs is firstly, there is North Africa. And a lot of the North African countries use Arabic as their main language.

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So, that's important as well for the North, IDNs are important for the North African communities. But even more than that, the most important thing for me, for IDNs, is that they change the status quo on how we view the internet. The internet is viewed as an English tool for English speakers, and as you saw, before 2009, most of the people using it were English speakers.

And I think IDNs have the power to change the perception of the internet, and speak to the social and cultural norms that currently exist. And I'll give you an example. For example, I was, slow down? Sorry.

For example, I was in Uganda, just two months ago, and I was speaking to some of my Ugandan friends about the Wi-Fi. And there was free Wi-Fi that the government had given them, given the citizens. I think they had to go to a specific spot to access it. But when I spoke to most of the Ugandans that I knew, they didn't access, they didn't actually use the internet, because they didn't trust it.

At least the few that I had spoken to. And it's this perception that the government wanted to use this internet as a way of connecting more data, and having more access to their data, and spying on individuals. And this is an example of how important it is, of how important the perception of the internet is, in order to create this access to the internet.

As much as we can create infrastructure and create all of these things that increase access to internet, these things won't matter as much, or have limited impact if the perception of the internet is that it is not trusted, or it's not used for something that can benefit you.

I know in my own country, actually, if you, you can build all of this internet access, but if they don't feel as though it is co-owned and it is co-authored, then your impact is limited. So for me, IDNs represent a culture change, and I think they would probably encourage more domain names that like have my own language, both the Latin script like dot [inaudible] for fashion.

So, that is the impact there. And then, just some, very quickly, some questions that I came across when I was looking at IDNs. So, they actually are a lot of issues with IDNs, though there is an implementation working group that are working on these things at ICANN. There are a number of issues that are identified.

The first thing is that, you can have domain names and IDNs, but there is also emailing and file transfer protocol that also needs to change as a result. And I was speaking with David Conrad, thanks to being at ICANN, and he was telling me that the problem with email is that it was created so long ago, and it has such old protocol, that it's not easy to change.

And it's not easy to implement this new internationalized domain names. And so, as we're thinking about the future and creating a culture that is multicultural and multi-diverse culture, then we need to think about whether the things we are creating are moving towards change.

And then, the other point I have, is some languages like Chinese and Arabic, have variant characters. So, variant characters mean that it's a character that has one or two, or more, representations. So, someone in Tunisia could be typing on an Arabic keyboard, and someone in Morocco could be doing the same, and they would type in the same thing, and it could lead them to different websites.

And so, those are some of the issues with variant characters, but there is a variant issues project that ICANN is working on, to address some of these challenges. And another challenge is that Arabic, for example, you write it from the right to the left, and we use Latin script from left to right. That's another challenge that they face as the engineers kind of look at solutions for IDNs and how to implement them.

So, there is work being done, but there is a lot of challenges, and yeah. I think they're useful for the African context for perception. Thank you.

[APPLAUSE]

DEBRA: Thank you. So, in the interest of time, I'm going to open up the questions to the audience members only, and we'll limit it to two. Are there any audience questions?

UNKNOWN SPEAKER: Yes, I do have a question.

DEBRA: Audience. For the NextGen, you can save your questions for the session this afternoon.

UNKNOWN SPEAKER: [Inaudible] from Niger. Thank you very much for the presentation. I have joined this IDN group of ICANN some years ago, less than four months ago. So, I really agree with all of the challenges you put here, especially for Sub-African.

You know, Arabic from North Africa, they share it for the Middle East and the so and so. I guess that is why they proceed quickly. For South Africa, it is also very easy to proceed, to start with, first by the repertoire. We don't have much problem for variant level in South Africa. So, I really call to anyone who, with interest in to join this group. Very, very interested in group, you know.

You don't need computer skills, linguistic skills, just came to build the community. It is really a process of building community, to add more value for our [inaudible]. Because why? Definitely for the next 10 or just 50 years, if you don't have a local language script, in the IDN, you never can be present on internet.

So, it is an issue for all communities. Thank you.

DEBRA: Thank you. Are there any other questions from the audience? Okay. Go ahead.

UNKNOWN SPEAKER: Okay. It's [inaudible] from Egypt. A great presentation, I can really touch the issue that you're talking about because I come from an Arabic speaking country, but my question is not for you, as much as it is for people working with IDNs in ICANN. Why can't we make, not only that specific domain name be registered in an alternative script, but that every domain name can have a translation like Facebook dot com would be written in Arabic. That anybody can access them, not only specific domain names, but IDNs would be, you know.

Every domain name would be an internationalized domain name, where the root server contains the different variance of

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domain names in different languages. Like that. All of the internet will be accessible for everybody speaking any language. Thank you.

DEBRA: Thank you. Okay. Thank you so much. Moving on to our next presenter, [inaudible].

UNKNOWN SPEAKER: Good morning everyone. My name is [inaudible] and I'm from Malawi. I'm a computer science student, and I'm a member of Internet Society Malawi chapter. Today, my presentation will be about internet and education in Malawi.

So, first I will introduce and then I will talk about education in Malawi. Then, how is the internet in Malawi? And how internet can be a way to improve education in Malawi?

So, the United Nation [inaudible] 17 goes off [inaudible] sustainable development. So, in the four points, we have quality education. And now, how can internet can help to achieve this goal in Malawi? So, in Malawi, education are facing many issues, like [inaudible]. Both by students and teachers.

So, because of that, students are not standing during all of the academic year. And the, since 2015, until now, we didn't achieve

15% of sexes in [inaudible], and this is a problem. And we also have a [inaudible] of student assistant, parent are not assisting to try and do their homework, or to make stuff [inaudible] researching.

And we have a league of learning tools. All of the schools are not adequate learning tools. And also, poor teacher training. And the [inaudible] of computer for learning. Children are not using internet for making researches, and yeah.

Now how is the internet in Malawi? The internet in Malawi is… The access of internet is very difficult in Malawi due to its cost and the [inaudible] of the country. And most of young people are just connecting through their smartphone. So, some information are hiding in smartphone. And then we have [inaudible] on computer, you have more information when you [inaudible] them on smartphone.

And because of that, many young people are, many young people believe that internet is actually meeting through social network and entertainment. So, they are not using them in a good way. So, we have also a link of local contents, even to have statistic on internet used in Malawi, it's quite difficult.

So, I considered two websites, and of course, they were foreign website talking about internet used in Malawi. And they just say they are only 2% of Malawi have good and regular access to

internet. So, that's not [inaudible], of course. But Malawians have not good statistic to give to us.

So, now, how internet can be a way to improve education in Malawi? I have identified some key points. First of them, we have to have a good internet access, because without a good internet access, we cannot talk about improving education by internet.

So, we have to [inaudible] organization which can help to improve the internet in Malawi like Internet Society, and IGF to talk about internet issues in Malawi, by internet stakeholders in Malawi. So, after improving internet, we have online [inaudible] platform.

I'm currently working on one of them. Just some [inaudible] platform, very simple, just adopted to Malawians' need to help children and student to work on internet. Also, to teach them how to use internet for education. How to use it in a good way. So, as most of them are just connecting through smartphone, making more apps for education and mobile apps to [inaudible] to parents to, to permit parents monitoring the skills of their children.

And finally, we have ICT centers. ICT centers which can permit to give them access to computers and good access to internet, to

talk about internet and how they can use internet to improve their skills on the, to learn more.

So, as a Malawian student, since my [inaudible], I never use internet to make search, to make homework, never. So, after my [inaudible], I get a scholarship to go to Morocco, and that's, there I discover how to use internet for education. And it has helped me a lot. And that's why I want to help Malawian students and Malawian people to use internet for education, and to, yeah, to use internet for education, to have a good out of internet. So, thank you.

[APPLAUSE]

DEBRA: Thank you.

UNKNOWN SPEAKER: Sorry for my English. I'm currently a French speaker.

DEBRA: That's very good. Are there any questions from the audience?

Okay, there is one over there.

UNKNOWN SPEAKER: Before I introduce myself, I was going to ask if we give a second round of applause to her. [APPLAUSE]

Yeah, because she really tried. She really tried and she deserved that second round of applause. I'm also originally from Togo, English is not my native language, but I try to speak in English. I work at the US embassy, and I'm representing the Senegalese ISOC chapter. My question is, how well is the population of Malawi educated? Because we've seen 2% of internet users.

Do you think that there way, or the space of education, is tailored in internet usage? I'm saying, I'm going to explain myself. Do you think the use of internet at the educational level has reached a very good and important awareness in our primary schools, in our kindergarten schools, in our high schools, and in our universities?

Do you think and can you tell me that in a primary school, does the government have a very sustainable policy to say, one kid with one computer? This is where we need to start from. I need statistics on that. If we have good statistics, I think we can go further. Thank you very much.

UNKNOWN SPEAKER: So, actually, internet in primary schools, are not using internet for education. And in universities, most of them just think that

internet, computer, are just for students who are learning computer science, so they don't use it. And statistic, we don't have statistic because the organization responsible to make statistic on all of them…

If you go on their website, you will just find nothing. You have to go the office. And even to the office, they are just doing nothing, saying nothing. So, we just don't know. That's why I'm saying we have to have a very, Internet Society chapter, very active to help to make a statistic and help people to use internet.

IMMANUEL: Okay. My name is Immanuel. I'm coming form Togo. And just a comment towards what you just said about the statistic users in Malawi, internet penetration in Malawi. I think she was telling us that it's 2% she saw online, but she's not sure that it's only 2% of Malawian population are connected to the internet. So, you have to deal with the local content and the local figures.

The government has to work on. So, I don't think that figure, she's mentioned as those are connected, but she saying that that 2% is wrong. And because there is no figure on the official website of Malawi, to get the right figure. And also, another comment I want to mention, she you give some figures from 2013, and I think, I have a chance to cover the Malawian war in 2013, as a student.

I was in general school those days. And I think the war in Malawi has really also affected the education system in Malawi, because when you think that these are part of Malawi, the north [inaudible] and all of those cities, they were really in a situation where people were not going to school because there was a war.

Until now, I think they are still struck with the war in Malawi. And also, the infrastructure, internet infrastructure in those parts of the country. So, it's just a comment. Thank you.

UNKNOWN SPEAKER: Yes, exactly. And now, in the north, I have a friend in Timbuctoo, and we have, who have an ICT center to help students study, and it's called the [inaudible]. So, [inaudible] labs are helping student studying through internet even if they are not going to school, they can just have access to courses and help them using the internet.

DEBRA: Okay, thank you. We have to move on to the next presenter. Very nice presentation, thank you. Okay, next we have Josh [inaudible]. Thank you.

JOSH: Hello everyone. My name is Josh [inaudible]. I'm going to present on the role of social media in political violence and conflict mitigation in Kenya. Just a small background about myself. I'm a recent graduate from the Pan African University. I'm also a research fellow for the center of human rights and policy studies. I'm currently an advisor, [inaudible] advisor [inaudible] election observer center in Kenya.

I don't think my friends from [inaudible] will forgive me if I don't introduce myself as an alumni of the African School of Internet Governance. Straight.

So, on my first slide, I'm going to show you the [inaudible] nature of social media. The social media is used as a tool to keep the government in check, in terms of accountability, in terms of respect of rule of law. But even as a source of information, most governments have actually, like the Kenyan government has gone to e-government.

So, most information is found online. But at the same time, it has been used as a platform for spreading hate speech. This presentation is actually very [inaudible] because Kenya is going into elections August 8th. So, social media has been used as a tool to spread propaganda, to spread hate speech against communities.

And the social media actually is a platform, anybody can post information on Facebook, on our Web 2.0 tools such as Twitter, such as some blogs. And this actually pretends instability for any nation. Tools such as Web 2.0 platforms have increased collaboration between users. People can post content inside, internet users can disseminate all kinds of content.

And without that kind of regulation, it can lead to instability. In 2007, we had presidential elections in Kenya. There was a lot of dissemination of [inaudible] and the abusive language through the media, especially platforms such as SMS, emails, blogs, and social networking tools. Numerous reports from, you know, actors in the sector such as [foreign language], show that new media has played a role in inflaming violence.

So, my question will be, what can be done towards this resolve? What's Up has also become popular platform, because of its encrypted nature. What's Up groups are people, you know, some groups are about to just, you know, evade authorities because those subgroups are closed, and people post messages online in those groups that maybe harmful content.

So, how can we mobilize [inaudible] balance? One way maybe, you know, using Twitter as a way of spreading information. And Twitter users can also Retweet such messages. Hashtags have also been used to target online conversations toward abuse.

Yeah. Content speech as well, is a good way to, by media personalities is a good way to counter hate speech. Television broadcasters also use their Twitter handles, and Facebook platform to just spread positive messages. That's the end of my speech there. Thank you.

[APPLAUSE]

Any questions?

DEBRA: Questions?

UNKNOWN SPEAKER: Okay. Thank you very much. I'm [inaudible] professor of mathematics in my university. So, it's very interesting to understand the way of the impacts of social media. But, [inaudible] it's not a new thing. What is a very new thing is that it's about how [inaudible].

So, what I will ask you, maybe for the next study will do, try to get inside… There is what we call in mathematics models of spreading rumors. It's very, very important, models are spreading rumors. 14 and to 18 centuries, you know, it plays a very, very important role in the religious wars.

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Now, social media has surely [inaudible] shape according social remarks. Thank you.

UNKNOWN SPEAKER: Thank you very much for that question. My response would be that, even if the problem has been in existence, or existent for a while, doesn't mean that we should not find new ways of tackling it. With social media, we can use filtering as a good way of just filtering hit messages, using maybe certain codes.

Another way would be to educate users on how to use social media, not to engage in violence. Not to use hate speech messages that can be inflammatory. Thanks.

UNKNOWN SPEAKER: Thank you. My name is [inaudible]. I just want to be clear whether you're saying social media should be regulated, number one. Number two, my question refers to the use of social media by political parties themselves, to gain political clout or mileage. So, my question would be, do you have any intentions of running those parallels, especially when you're looking at the use of social media by political parties and during elections themselves?

I'll give you a bit of context to it. When you look at the trend in Zimbabwe on the use of social media, the rulings [inaudible]

parties is very jittery about social media use. By its political party candidates as individuals as well, and also within the context of speaking to political positions or policies.

So, what are you saying, as the fancy word to use about the nature of social media? But in response to the parallels of running, or analyzing social media, as used by the political parties themselves, and as opposed to by the electorate?

JOSH: Okay, thank you. I'll start with your second question on political parties. Of course, politicians have realized that social media is a platform where they can reach their voters, or a mass number of voters maybe using minimal resources. So, if they're using the platform to spread messages, or spread their agenda, or spread their manifestos, that's a good use of social media, but if they revert to using the social media as a way of divisive or dividing populous, I think that will be a wrong.

The first question about whether I'm talking about regulating the social media, no. I'm actually talking about using social media in the right way. Thanks.

UNKNOWN SPEAKER: Thank you for the presentation. I'm [inaudible] from Kenya. Putting into context what you just said about the 2007 2008

post-election violence, it was not caused by Twitter, Facebook, or those things. It happened, and then people started discussing on Twitter, Facebook. So, the course of it is mistrust in the governments.

People didn't trust [inaudible]… Twitter account or Facebook account help trust. So, we cannot have a situation where a government comes and a great, or this social media resources. Recently, we had a telecommunications commission of Kenya, made a statement that they wanted to regulate [inaudible] in the elections, to have a way of controlling what people are communicating about in social media, What's Up.

And then there was [inaudible] from all Kenyans. The point is, social media can be used the way you said, but you also have to have the political, let's say, parties, the governments also being responsible, because they're also using it. And these are the people using propaganda to spread it.

[Inaudible] we have fake accounts, let's say talking about the political session. So, that's where we need to start from, governance, and then people to be left free to express themselves, either on social media or in the print media, without intimidation.

So, as you're nearing the elections, [inaudible] a resource to use it, even in education. We have this thing in 2009 study, 2008,

2009, where if you are to buy a SIM card, you have to register it yourself. It's a good thing, so that you can trace users spreading this propaganda. So, [inaudible] elections or these issues, the issues, trust in governments.

If there is not trust, people go to social media. And then they create fake accounts, and they start attacking each other. What you can see online, [inaudible] in governance. So, social media is a good resource, and you cannot have a government coming up to say we don't want this. It should be free, people to express themselves. Thank you.

JOSH: Thank you very much.

UNKNOWN SPEAKER: First of all, please limit the amount of minutes for question, because I think three more left. Thank you.

DEBRA: Okay, thank you. Actually, we need to move on. We're very short of time, but if we have questions, we can save them until the end. For our next session. Our next presenter is [inaudible].

UNKNOWN SPEAKER: Thank you.   Okay, my name is [inaudible] from Egypt.   I'm a student at Cairo University, an engineering student, my first year.   I'll be talk about DNSSEC and DNS how it works, and raising awareness about it in Egypt, because many people in Egypt are just internet users and they do not have any awareness about how the internet works.

So, an overview of what the presentation will contain.   The significance of DNS in our everyday internet user.   Also, a technical brief about DNSSEC, that would be the part where I'm skimming technically about that issue.   And the part where we raise awareness about, do people really know about DNSSEC and DNS in Egypt? And how to raise that awareness.

So, in the figure here, that's the first number one is the resolver, where you can send queries to ask, I want to reach www dot Google dot com.   This is then sent to the server, the domain name system server.   It then reaches to the root server, gives it [inaudible] dot com.   Then the root server gives it a referral to the top level domain server of dot com, then the same operation occurs to reach the Google server, then to the last name server, you reach the domain name you need.

This operation I'm mentioning, doesn't need to memorize IP addresses, and acts like an automated phone book for the internet.   This allows websites to have meaningful names that

we can surf for, allowing search engines to work efficiently. Also, we use it in everyday applications like instant messaging and P2P technology.

For people who don't know what P2P technology is, that's basically torrents. Then what is DNSSEC? It's an extension protocol adding cryptographic protection to DNS records. And to correct the popular misconception, it is not used to protect content. It's just guiding you to reach your destination, the destination you want, the IP address you're trying to reach using the DNS.

Let me get back to the previous slide, so I can use the diagram here. Let's go, last operation, where the [inaudible] for www Google dot com is sent. Here, we can face the problem of a man in the middle sending around IP address to misdirect users into his own website. This is what DNSSEC prevents by adding a public key for the root server in the DNS server. This server is then checked against from the name server, then going up in the opposite direction that we did for the DNS to work.

Okay, and then we reach to the public key, and that's the end of the chain of trust, where we don't need more verification, and we know that's a verified source that we can trust. There are terms that you might hear, DNSSEC, such as [inaudible] record

set, that were the key signing key and zone signing key are stored, so we can verify them.

A delegation signer, that's what we use to make sure that the previous step, the delegation signer at the previous server I was using, so I can reach next server. Okay, we're done with the technical part. We start talking English.

Oh, not yet. DNS spoofing and DNS hijacking basically the same thing. They are a method to implement farming, that's when you access a wrong IP address for the website you want that can steal your credentials. That's the type of threat we are facing without DNSSEC. Also, other threats to DNS that are not sold by DNSSEC or DOS attacks, generally DDOS attacks, and DNS providing where an attacker can get, be in charge of your router, and control the traffic you are viewing.

So, that's an awareness [inaudible] carried out in Egypt for people working with computers and communications. They are technical people with students, engineering students and computer science students. And what's shocking that 30% of people working in the computer and communications field does not know what is the meaning of DNS.

And also, on the other hand, it's only 15% know about DNSSEC, and not even how it works, but they just have the name, 15% only. So, we are trying to raise these numbers because the

majority of Egyptians, Egyptian graduates, who will graduate from communication and computer engineering, or computer science work as programmers, and they still are end users of the internet.

We want to make them aware of how the internet works, and start this field to be prosper in Egypt. And that's how we will be doing that. We can emphasize on the role of DNS and the internet, just like the previous slide mentioned how it's efficient or how the internet works.

We can highlight the threats that we'll be facing without DNSSEC, that also will make the people that know not about DNSSEC will decrease. We can also try to tie the domain name system to popular aspects of technology. For example, we were in a session two days ago, where Mr. Dave Piscetello, started mentioning cybersecurity. You can feel the energy, it started because everybody is very interested in cybersecurity.

They began to interact and ask, so that would be part to attract people to the DNS industry. So, what outcomes, positive outcomes can come from this awareness? The prospering of domain name industry in Egypt. Because in Egypt, we, as I previously mentioned, not many people work with the internet.

It's just in programming. This would maybe start Egyptian registrars because we don't have any Egyptian registrars.

Registrars such as Go Daddy. That would offer job opportunities in a new field that is relatively new in Egypt. On the technical level, new minds will be available to develop DNSSEC by further deployment on many domain names, that's not implemented DNSSEC. Also, people would start developing new security measures that may solve problems like DDOS attacks and so forth.

These are the references, and that's my contact details. And let me quote my colleague [inaudible], she said, it doesn't stop here and we should present ICANN to our communities when we go back. That's the way we can step into transforming Egypt and other communities from just end users to contributing bodies on the internet. Okay? Thank you.

[APPLAUSE]

DEBRA: Thank you. Because we're running short of time, I'm going to ask the audience to hold questions to the end. We have two more presenters. Our next presenter is Walter [inaudible]. Walter?

WALTER: Okay, I'm going to stand.

I like presentations so much. So, I am Walter from Malawi, but I'm doing my masters in public health with [inaudible] University of Uganda. So, I'm pretty much interested in the role that the internet has to play in terms of health, because in public health, this premise that prevention is priceless.

I mean, many people, when they think about health, they think about, I mean, getting pills from a doctor, getting an injections, and the like. But then in public health, we go beyond the [inaudible] to look at the other factors that impact health, that are not really rooted in the healthcare system.

So, I'm waiting for the presentation to load, so I can start the actual content that is in the presentation.

So, I've published a book titled, Harnessing Technology for Healthcare Improvement. It talks about how healthcare is going to change. I mean, is already changing, but how it is going to continue to change, because of the advancements that are there in the technology sector. And I really believe that companies that provide internet services, are going to take, they're going to have a bigger stake in healthcare, because for example, we talk of healthcare insurance.

It's provided traditionally by companies that are not tech companies. But then, ICT companies, or mobile providers, or, I mean, phone services, they have a bigger role to play in

healthcare insurance, because take this example, if you are in a certain health insurance plan, you take out some of your money and pay.

Whereas if you are an insurance plan for health, that is run by a mobile phone service provider, you don't need to pay any extra money. Air time that you used, is also used as your insurance premiums. So, at some point, people are going to get attracted to that, because it's kind of like cheaper and then these companies will dominate the space.

And I also want to mention that in my country, me and my friends, we have this other app for maternal health. It's available, oh my God, that's taking too long. It's available both on the Android platform, as well as the USSD platform, whereby now for instance, a pregnant woman kind of like subscribes, and then she gets kind of like daily SMS messages instructing her.

And those messages are tailored to the length of the pregnancy. If she's like five months pregnant, then she's going to get nutritional information which is relevant for that period, and so forth. So, we also have the Android app. And I do believe that this app can help to prevent maternal deaths, because in my country, there is very many maternal deaths.

Malawi is one of the countries, it's one of the highest maternal mortality in the world. And I think that the government doesn't

do much on this, because we kind of like spend more resources on buying treatment. So, you kind of like wait for women to have those complications that would treat them, instead of leveraging this digital revolution that is taking place, because we have very affordable smartphones made by the Chinese that are sweeping the market.

So, we can use that. I mean, the health people should be aware of that. And…

[SPEAKER OFF MICROPHONE]

It's corrupted? Unfortunately, I didn't memorize the things, but I have like a PowerPoint copy. Can I transfer it into your…? Sorry? Okay. I will just be speaking some other random things.

Well, I did write in my book, that a scanning machine for pregnancy cost something like $10,000. And in my country, we can't pretty much afford to have a scanning machine in every other rural hospital. They're usually in the bigger hospitals. So, why instead of depriving those people in the rural areas from having scanning services, why don't we just maybe like buy smartphones, and then develop a certain scanner for the software?

Actually, some students in Uganda already developed that software. So, if you, the cost of buying one scanning machine, is

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the equivalent of the cost of buying 200 of the affordable smartphones, and then you'll load that software in that. I mean, the software is not as advanced as a scanning machine, but it provides some of the basic scanning options that will be found on the actual machine.

So, I think somehow it's just a matter of decision making and all of those kind of dynamics.

Okay. I have a PowerPoint version, can I transfer it and present from the PC without the whole connection thing?

[SPEAKER OFF MICROPHONE]

Okay, it's working now. Excellent. Okay. It's actually working again. I can do it. So, I think I've introduced myself. So, the internet continues to play an increasing role in healthcare in many different ways. I just pulled a few examples of how it does it.

I won't have the time to discuss all of the ways. So, it is used by healthcare professionals, as well as biomedical scientists, and the end users of health information in, they use the internet sometimes. So, health experts use the internet sometimes to communicate with each other.

For instance, like the gyno doctors when they want to ask for something from a consultant who is somewhere remote, they

can use the internet. And it's also used in internal medicine, whereby you can consult with a specialist who is located even thousands of miles away.

And also, there is a user generated content, whereby, for instance, people who have HIV will go to a certain site and discuss and then share experiences. Kind of like that. And it's also used in electronic medical records. To kind of like, there is a certain project in my country where they're trying to digitize health passbooks.

And I want to mention this movement that I'm part of. I've been to several conferences on open health. I mean, on the open movement, and the open movement, it tries to promote open scientific practices whereby if you go to seek kind of like some information, you shouldn't have restrictions in the access.

So, open health is a branch of that open movement. And it can also be used in the health circles. For instance, some people in, I don't know which country, but they developed a certain software whereby it is used in a certain spatial machine. Okay.

It's used in a certain machine, which kind of like improves your pancreas. So, they put it in the open space. So, such software and such information can really save lives. And open health sites should be given more online presence, for people to have access to this information.

And it's also the onus of the policy makers who have different positions, to come together and work on this open health. It's not an initiative of one person. And suppose I want to create a website, whereby people should get health information from that website. I need to make that website clear so that someone just seeing the name of that website would be able to understand what it's all about.

For instance, if I say, cancer chat dot com, as the name of my website, the word chat is a keyword which indicates that the discussions of cancer that are going there, they're not coming from the health provider, but they're coming from, we're kind of like chatting.

So, we need to be sensitive in the way we use, I mean, or come up with names of websites, or something like that. And yeah, I think I've already explained that. Whereas we talk of cancer talk, the word talk itself, or cancer corner itself, it can be something that is general. It can either be from information that is coming from a health provider to a client, or among clients themselves.

So, we need to be very sensitive in how we choose our words. And let's say I want to develop a website with the name, cancer chat dot com, and that name is already occupied. It would be better for me, instead of removing that word chat, to still keep,

but then use the other top level domain to maintain that word chat.

I think it's understood. So, thank you.

[APPLAUSE]

DEBRA: Thank you, Walter. So, our final presenter is Walter [inaudible]. And go ahead and proceed, Walter.

We want to go ahead and be aware that the Fellows have the session room. We're already at 12, so we need to wrap this up, and I apologize to the Fellows who are waiting for us to continue. Thank you.

WALTER: All right. Good afternoon, I suppose it's now. For the sake brevity, I'll go straight into it. My name is Walter [inaudible] from South Africa. And my topic for a presentation today is the concept or practice of universal acceptance from an African perspective or in an African context. And I think to set the scene, this quote by a person by the name of Andrew Mac, which goes as, what is certain is that the next phase of Africa's development will be deeply connected to the internet, especially the mobile web.

And that any future expansion of the web should have more focus on Africa, and more focus from Africans. And I believe that this quote resonates with many of the people that I met with in the past two days at ICANN, and I think my fellow NextGen participants as well.

So, diving straight in, removing the technical hurdles that may prevent an internet user from accessing any domain name from any device, has the potential to create a truly global and scalable internet. On the most basic level, the concept of practice of universal acceptance, is that all domain names should be treated equally.

Universal acceptance ensures that all domain names and email addresses, can be used by all internet enabled applications, devices, or systems. Universal acceptance addresses an issue that prevents some internet users from participating fully on the internet. A problem that can arise when applications reject, or don't treat parts of the domain name correctly, which can occur if those domain names are longer than, say, three characters, which is your traditional dot coms, dot nets, dot orgs, or are in a different language or different script, as my colleague [inaudible] has alluded to, and which I'll touch on a little bit later.

Obviously, different scripts being Cyrillic, Arabic, Hebrew, and so forth. So, in essence, universal acceptance encompasses, the acceptance, validation, processing, storing and displaying of all domain names equally, consistently, and correctly.

Essentially, without universal acceptance, countries and communities that wish to express themselves in a manner that is unique to them, will not be able to do so. For example, someone from Algeria who would like to use a domain name that is in Arabic, will not be able to do so. This can be disempowering, and prevents true multilingual and cultural participation in the internet.

So, and this is directly taken from the universal acceptance steering group, which is a body supported by ICANN, to excel in the long run, organizations need to ensure their systems work with the naming infrastructure, sorry, of the internet.

And basically, that when businesses are universal acceptance ready, sorry, I'm very light on slides. So, I prefer to keep them pretty high level. But when businesses are universal acceptance ready, there systems and services will work with the continuing expanding domain name space.

And it also helps businesses set themselves apart. Set themselves up for future opportunities and success by supporting customers, using their customers chosen identities.

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Universal acceptance ready websites, applications, and services lead to better user experiences.

So, now I'll quickly touch on a point that [inaudible] had already spoken about, and this is internationalized domain names, also known as IDNs. IDNs. I won't get into too much detail, but I will touch on some of the points that [inaudible] left out. Sorry, let me control this a little bit.

We'll leave it on for now. So, universal, well IDNs is basically a manifestation of the principle of universal acceptance. And that universal acceptance is crucial for the acceptance of INDs, as they allow users to use any TLD, top level domain, with any browser or email client, no matter the operating system.

And that in turn allows, people use different keyboards or different scripts, to access what they call in their own language internet. So, some of the issues that are preventing the full realization of universal acceptance include, on a more technical level, and I'm not a technical person, but browsers that perhaps don't allow the typing of non-Latin, non-ASCII scripts in the browser address bars, or when address bars require a separate encoder to accept a non-Latin or non-ASCII scripts.

And I think what's quite relevant in, not South African, sorry, in African context is that mobile platforms are generally more technically limited then say a desktop computer. So, these

issues may be compounded in a mobile space, or using mobile devices for that matter.

So, one of the suggestions that I came across to address this issue is that, technical operators build in the functionality of IDNs from the ground up, so accessibility does not become an issue further in the future.

So, how this concept applies to Africa consists basically of the second part of my presentation, and that refers to the dot Africa domain name, gTLDs, I've seen it called, geographic top level domain name. And a GOTLD is basically a top level domain name that uses a name that invokes an association with the geographical, geopolitical, ethnic, linguistic, or cultural community.

And as one can already see, dot Africa is six characters, which is obviously longer than your traditional two or three, so already, there is this issue that if a system does not accept domain names that are out of the ordinary, then something like for dot Africa domain name, might face issues.

And this goes to why… Why this is an issue is, can be linked to the value or potential impact that something like the dot Africa domain name can have for African internet stakeholders. So, I wanted to consider the impact of these geo TLDs in jurisdictions where they have been applied.

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And I came across dot CAT, dot cat, to represent the Cataline people of Europe. And basically, this was quite a success story. A group of people who wish to carve their rightful place amongst the internet community, had done so, and in doing so, had laid a claim to a very potent identifier.

Now, this is a group of people, Cataline speaking people, in Europe. Now, picture this on a continent wide scale. And that's the sort of value, one of the values that I foresee for the dot Africa domain name, that it can really draw many different cultures, different languages, different peoples, different countries together, and doing so really enforces, or reinforces, concepts like Pan-Africanism, which is a very important issue in Africa.

So, to sort of bring it a bit back down to Earth, and not just speak about the what ifs and how this should be valued, or what the potential impact can be, the dot Africa domain name has now left the sunrise registration phase. I'm not 100% clued up on the whole process, and is now entered into a land rush phase, one of many. And so far, there have been more than 900 trademark registrations, or registrations of the dot Africa domain name by trademark holders.

And 981 registrations were made within 60 days of it becoming available. And this has now put it in the top 10 domain names

that have been registered during one of these sunrise phases. So, I think there are some real, people have taken cognizance of how valuable this domain name can be.

And this is a tangible, this is tangible evidence of that. So, you know, implementation of universal acceptance will allow for the potential expansive use of the Africa TLD, dot Africa TLD. And the domain name can then serve as a unifying online identifier, allowing African internet users to signify their participation, not only in a Pan-African community, but also in a global internet community. Thank you very much.

[APPLAUSE]

DEBRA: Okay, thank you, Walter. I apologize for the technical difficulties at the end, and for the time constraints. I'm afraid we have to wrap it up without questions. I want to thank the audience for being here today, and for our online participants as well.

These slides and the presentation audio recording and video recording will be available on the ICANN site, so you will have the opportunity to review them. It will be available on the ICANN website. Thank you everybody.

And NextGen, we're due in the, which room is it? The Board Room half, right now. Bye.

EN

[END OF TRANSCRIPTION]