
KOBE – NextGen Presentations Session (2 of 2)
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DEBORAH ESCALERA: Okay, everybody, we are going to start in one minute. Okay, everybody, we'd like to thank you to the second part of the NextGen presentation at ICANN64. My name is Deborah Escalera. I am the NextGen Program Manager. I work for the Public Responsibility Support Department.

We're going to go ahead and start right away so we don't go over time. Our first presenter is Dikchya Raut from Nepal. Dikchya.

DIKCHYA RAUT: Thank you so much, Deborah. Hello, everybody. My name is Dikchya Raut. I come from Nepal. I recently completed my under graduation in law from National Law College in Nepal and I also work as a Youth Ambassador for Together against Cyber Crime International.

Today my topic of discussion is Increasing Participation of Local Community in Internet Governance. Since Day 1 we have been discussing that Internet has touched the life of so many, and the government as well as the businesses have started taking active participation in Internet Governance dialogue as evidenced by

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ICANN meeting itself. However ... can I have the remote? Thank you. However, although the private sector, businesses and government have been taking on active participation in IG platforms and IG dialogues, but the Internet and the policies around Internet, it impacts the life of all the individuals, government, private sector, the people connected to the Internet, people who are not connected to the Internet.

So, therefore, the IG process however they tend to be quite difficult and often tend to be a steep learning process especially for the general Internet users and especially for countries like Nepal where only 28% of population have access to the Internet and rest of 75% does not have access to Internet. It is really difficult for people to come on board and have actual discussion around IG issues.

In this scenario where the platforms like ICANN, they have been increasing multistakeholderism. The concept of multistakeholderism, it is really important for these people to come on board. It is really important, categorically speaking, for the youth, the women, the children, if we talk in wholesome, the Internet users, also law makers, and implementers.

It's easy to be said that these people have to come on board and for developing countries like Nepal as I've already said, the challenges even more serious. So, certain challenges, it remains.

The challenges for us developing countries are mainly the low awareness and engagement around the IG dialogues and also the accessibility towards the IG platforms. The second being digital illiteracy or low digital literacy. Also a lot of youth or even the adults or even the law makers and implementers, they often do not know how to participate in these platforms like ICANN meeting or IGF in that regard. So, how to participate? Express views and build networks are also lacking. Fourthly, we also lack the knowledge about the global and local Internet policies and regulation that impacts our daily life.

There are certain actions required in order to improve the situation. For example, number one, find solution to improve participation and also engagement of unrepresented communities. The second also being that we also need to have better outreach and communication practices with the communities, highlighting why their participation is important to shape their digital future.

As I have already participated in IGF 2017 in Geneva and I also participated in India School of Internet Governance, I often feel obligated and I also feel that I have personal commitment to work on these issues. But as a recent graduate, it's often difficult to motivate myself to engage in all these discussion forums on voluntary basis but there are some interventions that I have been taking in personal level back in my country.

To begin with, what have I been doing in Nepal to reach all these communities? Number one being cyber outreach program in school, colleges, youth club on cyber security. I am a Founder/President of Rotaract Club of Kathmandu Metropolis. I hope you've heard about it. Rotaract Club is an international organization that has its wing all around the world. We have ours in Kathmandu. We are 35 members, most of us are from law background. One day we decided that it's important for people to know the existing laws around the National Internet Policies in Nepal where we need to tell youth about it. So, we started this program called Know the Law, and so far we had three edition of it.

In the program what we do is we tell the youth and schools how to safely use the Internet and what consequences do they have to face, what punishment are there in the national regulation if they violate those laws. We usually reach out to the school administration and they facilitate us to assemble all these youths and the students in schools and youth clubs. And this has been effective so far because the last edition, the third edition we had it in February and we invited more than 80 students.

For the facilitator, we have been inviting the inspector from Metropolitan Police Division which is one and only authoritative body that has right to investigate on cyber crime cases. We've also been inviting IT professors, and with regard to law, as I am a

law student myself, I facilitate in making them aware about the existing cyber laws and regulation in Nepal. Apart from that, I also tell them about the remedies they can go or seek if they ever become a victim of cyber crime.

The second thing that I've been doing is I've also been engaged as Multi-stakeholder Steering Committee member for Nepal IGF. We had our first IGF in 2017. In IGF it's often important to have a youth perspective while organizing IGF but since I'm a youth, it's very difficult sometimes to be taken seriously. So what I also do is that I have been in some meetings, they work on proposals. In 2018 I submitted this proposal where it was titled as Importance of Participating in Local, Regional and International Internet Governance Platforms, where I also made them aware of the existing platform, for example, NextGen, IGF, yIGF, APriGF, all these platforms in Asia Pacific and international level as well.

I think these programs are really important in Nepal, also especially because I believe I'm the first NextGen from Nepal to ever participate in ICANN meeting as far as I'm right. Because when I try to reach out to the alumni from my country, I couldn't find any. Although people having participating in fellowship but when it comes to NextGen or youth, as they are not aware of these platforms, they wouldn't be able to participate in the first place.

Since I have participated in IGF 2017, they would often call me as a speaker to interest other youth to participate and that it is possible us youth, the Nepalese, local youth, to also have our voice heard so they use me as a source of motivation I guess.

The third thing is conducting training program for lawyers in collaboration with Regional Bar Association. Since I'm based in Kathmandu and I've also been writing – sorry, [inaudible] do the next slide because I'll explain this and then I'll go back to that.

Using media to raise awareness on the increasing impact of Internet on human life. When I was in my fifth year of law school, I decided to write this paper on implication of cyber crime on women in Nepal. I couldn't find much literature because there weren't any. What I decided to do was write these articles for National Daily newspaper so that there are more literature produced and also that we have more source to look on. So, my recent article was published this January on Implication of Cyber Crime on Women in Nepal. And then maybe because it was famous, somehow I was also invited to speak as an interviewee on national television of Nepal where I also talked about the implication of the civil code which has recently been drafted in Nepal and the implication of it in Nepalese society.

The fourth thing is bringing young people together to talk about Internet governance issues on a multi-stakeholder discussion

model. Like I said, I am engaged with Together against Cyber Crime International as a Youth Ambassador. Very generously what they have been doing is if I come with a good workshop proposal or a good program proposal, I need to submit them and if they are convinced that it will help the young people somehow back in my country, they will try to reimburse the cost of the event.

Since I don't get paid to do these activities, the cost of the event really helps me to gather all these young people and not have IGF. IGF – because that would take a lot of money. So, we gather 10 to 15 people together and discuss about the Internet issues which affects maybe business students or law students and people from other sector.

I'll keep it short and I'll only like to take 30 seconds to conclude. Collaborating with international community for supporting and facilitating discussion – by this I also again mean TaC international because this is one of the organization that I have been collaborating until now and they have been very supportive in terms of providing me with trainings and it really helps me to reach out to the community again and keep me motivated because it's really difficult to keep yourself motivated when it comes to working on voluntary basis.

So, this is all the activities that I have been doing in Nepal to interest the local community to come on board and hopefully also participate in IG platforms like ICANN meetings. So, if you have any questions, I would like to take that. But more than that, if you have recommendations for me or if you want to motivate me or interest me to do what I've been doing, I would love to receive it. Thank you.

DEBORAH ESCALERA: Thank you, Dikchya. Are there questions for Dikchya? Go ahead.

UNIDENTIFIED MALE: Hi, [inaudible]. I was just wondering, your point earlier about cyber security in the schools and everything, that's a very important topic all around the world. Is there any support or interest in that from the government particularly with young people in cyber security and just cyber issues in general? Is there much support from the government side?

DIKCHYA RAUT: Well, no. There's no support from government because one of the things that I realized is that when I come in ICANN meetings and discussion, I'm just an average person who knows little things about something, but when I go back in my country I become the expert because no one knows more than I do and

nobody is really interested. Since it's a developing country and technology is brand new, they do not know the implication of cyber crime or misuse of technology in that regard. So, the government is not much aware of it and maybe that is the reason why there's not much support or sponsorship in that regard.

DEBORAH ESCALERA: Okay, we have somebody at the microphone.

COREY LEONG: Thank you. Corey Leong, University of Central Florida. You said earlier on your presentation that you felt obligated. Why do you feel obligated to help people to participate?

DIKCHYA RAUT: Thank you so much for the question. I feel obligated because in third year – I was in third year of my law school and that's when I joined this law firm which was receiving a lot of cyber law cases, but the way it was dealt with was as equally as any traditional crime. They didn't know what to do with it and they couldn't counsel – the basic legal counsel that cyber victim has to receive, it was not present. So maybe that is also the reason why I was motivated. Secondly, also because in IGF 2017, I came to know that I am the only youth from Nepal who has ever

participated as a youth Fellow. Or like I said, in NextGen, as far as I know, if I'm correct, I'm the first NextGen here from Nepal.

So, yeah. These instances – and when I see people – I'm sorry if it's informal, but I see a lot of faces here and I see nobody who talks like me, who looks like me because there are so many less people from Nepal. So that is also one of the many reasons that motivates me and also I feel more than obligated. I think I have a personal commitment to do something about it. If I'm getting this [inaudible] these amazing platforms.

COREY LEONG: Yeah. Excellent answer. One more question. What's next? What are you going to do next?

DIKCHYA RAUT: I've been volunteering a lot for these organizations, so I would want to get my master's degree in ICT law. University of Oslo is on my target but I would want to get a master's degree to train myself better to able to be a genuine expert and not so-called expert. Thank you.

COREY LEONG: Alright. Thank you.

DEBORAH ESCALERA: Are there any other questions? Oh, it looks like we have somebody coming to the mic.

ANJA GENGO: Hi. Yes. Thank you. This is Anja Gengo from the Internet Governance Forum Secretariat. I just wanted to take the opportunity to thank you first of all for excellent presentation, and maybe it's more of a comment to take note of.

Nepal definitely as a community has challenges and you were very right when noting the digital divide that exists in regards to the other parts of the world. But there is one thing that I think it's very important to note. You note that there is a very good national IGF in Nepal, the processes are quite developed and we're very thankful of course to them – to the organizing committee that is placed in the country. But the government is supportive of the national process and we at the IGF Secretariat, we're very fortunate to be able to communicate with the Ministry of Communication precisely, that is a member of the organizing committee and that logistically and substantively supports the practices.

The Associated School on Internet Governance is another resource that I think is excellent way for young people to be connected with the national processes and I also know that the colleagues involved both in the national IGF and in the school

are also well connected with the global ecosystem. Some of them are also sitting here at the GAC at ICANN.

So I think maybe for young people it would be great to use this opportunity particularly for you to engage with the government because I know they're very, very approachable and maybe see – since you're very, very enthusiastic, also your very knowledgeable, it would be great maybe to connect and to start processes for youth engagement in the national Internet Governance processes and of course in global. Thank you.

DIKCHYA RAUT:

Thank you so much for the comment. You are very right about the government support in IGF. They've been very aware that this has to happen and I also feel that the ones in the organizing committee, they have a good link with the government and they can talk through it. You are very right in that and we're very fortunate to receive all these support for Nepal IGF. Like I said, I'm also MSG member for that. And firstly, I have been invited as speaker and I am very fortunate for that. But having said that, yes, in Nepal IGF we see a lot of government support in this initiative. However, for this support as Mr. [Elliot] had been mentioning, for those local programs, maybe there's not much awareness of why is it important. That is not there. However –

yes, you are right – for Nepal IGF and Nepal SIG there’s a lot of support in the recent time. Thank you.

DAVID: Hi, David [inaudible]. I love your optimism. I love your hopefulness. It is a communist country. At least you have a communist prime minister in China to the north, they have a firewall. Russia further up to the north, they're putting in a firewall to protect them from free Internet and free ideas to save the people. Is this a concern that you have with your country? What would you do to keep that from a concern, I guess?

DIKCHYA RAUT: I’m so sorry, I come from Nepal and since I’ve not participated in so many regional platforms, it’s really difficult for me to understand accent. I’m so sorry, but could you repeat it again?

DAVID: Sure. China to the north is communist country. Russia, also to the north, big communist country. Both have firewalls around their Internet. They protect – Russia’s starting to, they’ve introduced legislation. China, it’s not an open Internet. It’s closed. There’s no Facebook, for example. Are you worried that Nepal, which has a communist prime minister duly elected but nonetheless, are you worried that Nepal will move to a closed

Internet at some point? Does that concern you and what will you do to stop that?

DIKCHYA RAUT:

Thank you so much. Thank you so much for clarifying. Yes, there are a lot of concern. I don't know if it is motivated by other countries by saying how it's working there but they're in the same time when the public figures ... I can give you instances to justify my point. For example, the president was mocked for her activities inside Nepal and somebody was arrested for it for defamation. So, instances like these, yes, it worries me that it is becoming a closed community. Also during the elections, in a lot of places the Internet is shut down. So, it really hampers freedom of expression in that regard. Maybe I'm too young or maybe I'm not too experienced to tell you exactly what but, yes, it worries me that it's becoming more closed and closed every passing year. Thank you.

DEBORAH ESCALERA:

Okay. One final question. [Fabio], can you hold your question until after this session? We have an audience member. Thank you.

[MILLIE]:

Hi, I'm [Millie]. Thank you, Dikchya. It is a great presentation and I have a little tip and maybe some motivation. I understand when you're coming from Asia, young Fellow, it's difficult to keep up the motion and the motivation to keep doing this but you're doing a great job. What I'll suggest you do is take some more input with the community in Asia. There are a few initiatives that are building up in bringing more young people, keeping them together, keeping them more engaged with IG processes and also amplified in their own home countries, so plug into that. There are a bunch of people here, find me and so many other people from NetMission, APriGF, MSG itself, ISOC people from Asian chapters. Get in touch with them and see how you can get involved more regionally and also bringing all the different people in Nepal, especially young women like yourself to be [inaudible] and get them more engaged in IG process.

You're doing a great job and keep at it. It'll be a bit difficult, frustrating sometimes because it's difficult with countries like India where I belong and Nepal or Bangladesh and neighboring where language – and especially for women to come to these fora are not equally the same as a lot of other places. So, keep doing what you're doing. Thank you.

DIKCHYA RAUT: Thank you so much. That was indeed a very wonderful comment. Thank you.

DEBORAH ESCALERA: Okay. Very good. Thank you so much. Okay. And then in the interest of time, we're going to move on and, [Fabio], hold your question until the end. If we have time, we can bring you back up.

Okay. So, our next presenter is Aisyah Shakirah Suhaidi from Malaysia. Aisyah.

AISYAH SHAKIRAH SUHAIDI: Thank you. Hello and good afternoon, everyone. My name is Aisyah Shakirah Suhaidi and I am from Internet Society Malaysia. Basically, my project is a lot about helping other people. It's more community based and I strongly believe that the Internet has a huge potential in solving problems. I want to do that and I want to start with my region. For that reason, for this presentation I decided to offer a regional perspective and talk about something that my team and I have been working on at Internet Society Malaysia and that is a crowdsourcing, action-based initiatives or technology through an app called MyHelper which aims to help underprivileged women in Asia. The reason also I decided to talk about this is because we just celebrated

International Women’s Day last week, so I wanted to further celebrate women in this area.

This initiative is supported by Internet Society Beyond the Net Funding Program where we received a small grant in October 2018 and we only started in December 2018, so it’s very, very new. So, this is a bit of statistics about the underprivileged women from the rural area in Malaysia. As you can see, 0.4% incidences of hardcore poverty still exist in Malaysia and B40 enjoys 16.4% income share. And the lowest median income come from states like Kelantan, Kedah, and Sabah. Kelantan, Kedah, and Sabah, they’re small towns and small cities and it’s still not there yet when it comes to the economy. We’re still struggling and we’re still facing a lot of pressing situations.

So, what inspired me to come up with this project or develop the problem statement is we found out that those who earn below RM2000 which is the Malaysian currency, after subtracting everything, the real residual household income is averaged RM76 and that is about \$18. This is for diapers and rice and bread, to put food on the table basically, which is definitely not enough. And for states that I mentioned earlier like Sabah, Kedah, and Kelantan, the situation is really pressing – the two various aspects such as social and economic situations.

If you can see from the slides, it's not only a situation that is affecting Malaysia but also Philippines, Indonesia, and other countries in Southeast Asia as well. And the conclusion that I can make from this is that what we see is that governments are struggling or they do not know how to really deal with this community. Therefore, we are initiating this project.

This project falls under the Internet Society Drivers of Change and it falls under two categories which is – first you can see the Internet economy which ISOC believes that the Internet will promote drastic shifts across all sectors of the future of the Internet economy. So, in a hyper connected economy, no sector of the economy will be untouched by technology. And the other one is digital divide where the digital divide of the future will no longer be only about access to connectivity but will also be linked to security and the ability to leverage the Internet for broad range of economic opportunities.

So, you see a lot of these women they don't have the educational qualifications for them to get jobs. In Malaysia it's very competitive to get jobs. Even for me, I studied law and it's quite hard for me even. And our economic situation is not really helping as well, so it's really hard for these women. Also, even if they are employed they earn very, very little and the high cost of living, like I said, it doesn't seem to be helping the situation at all.

Also, at the more social perspective, some of these communities they still believe that women should not you know go to work. They should just stay at home and take care of the family. And they still have this mindset which is really disheartening and sad, actually. But at the same time, these women are very skillful and they're very determined. We should channel these skills and these talents to something useful that could at the end of the day be beneficial for them. I believe the best way to do that is through the Internet.

So, going on to the app. This is the app. The interface is not as great as some of the best developed apps, but we're starting somewhere. This app, basically, so far it is only used in Malaysia and Philippines. For the time being, it's only available for Android and the reason being is because we have this mindset that IOS users usually have enough money or well off, but we're slowly going to go to IOS. And the way it works is these women can download the app. The app, initially it's called MyHelper but we changed it into EVE.

These women can just sign up and start advertising what service or what skills can they offer. For example, it could be cooking or sewing or baking, and someone can find a service that they want and then they could establish some sort of communication and get the job done. To motivate these women to actually use this technology, we worked with a lot of parties, for example, the

Ministries. We kind of created this system where they can collect points and when you reach a certain amount you can redeem items and necessities from big supermarkets like Tesco or something.

We also do training. Because this is in the implementation phase, there's still a lot to be done but we're starting by doing training. How this is done is we collaborate with vocational colleges and we provide trainings such as profile development like what do you put on your profile? How do you attract people to use your services? Then we also teach them digital skills because these are people from rural areas. But today even people from rural areas in Malaysia are using social media and everything, so that's not really a problem. But if it is a problem then these training are there to help them. The training of trainers, as we call it, is supported by a lot of universities and also the Ministry of Women Development and other agencies as well.

So far since we started with this app in December, up until now we have about 200 users. That's not a lot but we've been getting a lot of good feedback and it has been helping them, so we hope to further expand this or further improve this so that we could help more women.

Before I end, I just wanted to talk about the challenges. Of course this is something that we're not profiting from. We do not gain any profit from doing this. It's entirely community engagement. So, we still do have a bit of challenges.

For example, the first one is, like I said, technology competency. Some of them still do not know how to use it, so that's why we have the training. And then financial difficulty. But the thing is this app, even the older versions of Android can download and they can still use it. And also since rural areas – the common problem in Malaysia is usually Internet connectivity. Also security – but with regards to security, for example, if they feel threatened or if they feel endangered or something, there's a button where if they click the Emergency button, it will connect them to the nearest police station. So, we really want to help these women but at the same time we want to keep them safe.

We really hope that in the future we could help more and more women and we can expand this to help more underprivileged families or women in my region. So, that's basically it for my presentation. I really hope if you have any questions, I would really want to answer them. Thank you very much.

DEBORAH ESCALERA: Questions?

JAEWON SON: Hi. I'm Jaewon from NextGen like you and I was wondering what is the mark of the woman at last slide? No. I mean the logo.

AISYAH SHAKIRAH SUHAIDI: Oh, that is the app logo. I don't have an Android phone right now but if you look on Android, you can type in EVE and you can find the application.

JAEWON SON: How many people are using the app right now?

AISYAH SHAKIRAH SUHAIDI: So far, the last time I checked, it was 200 people which is, like I said, is not a lot. But for the time being, because we're still trying to improve the app, so we try to get feedback from the people who are already on the app and they have been giving good feedback. They do not really earn a lot, lot but it has been helping them. And to us, that's an achievement already.

DEBORAH ESCALERA: Any more?

UNIDENTIFIED MALE: Yeah. It's a really cute app and I think maybe easy because you provide this app to the poorest country area. So what I'm thinking about is, in this such area, how about the network coverage? If the area is [taking off] the linking of the Internet, it's so difficult for people to use the app. So maybe the basic facility maybe need to be enforced by the government or by the local facility to help you to advance more things around this one.

The second question is about the outcome of your app. So you have trained 200 people to use your app, so do you have any successful cases that maybe you can show with us and maybe you help them to improve their lives or these kinds of things? Thank you.

AISYAH SHAKIRAH SUHAIDI: Okay. The first question is regarding to network. Like I said, that is a challenge. I mentioned that in the challenges. But it's a good thing that this app has the attention of the Malaysian government and we are slowly trying to ensure that there is connectivity and people can actually access the app.

As for training, the thing about this training is that we don't train everyone who downloads the app because that would be absurd. But as for successful cases, I don't really have any official proof or anything but it's just that team will keep in touch with some of the people who came to the training and

from time to time would see whether it actually creates an impact or whether it is efficient or not and what else can be improved on the app.

That is basically it. But I can assure you that it has been proven to help a lot of people in Malaysia and that I think it has a lot to do with government support and also because of Internet Society, basically the Beyond the Net Funding, so we are very inspired. Like I said, we don't get any profit from this, so we try our best to make sure that our objectives are being achieved. Thank you.

DEBORAH ESCALERA: I had a quick question. You mentioned the point system – is there a way to track that?

AISYAH SHAKIRAH SUHAIDI: The point system actually is not implemented yet. It's something that we are still planning. Actually, this week one of the team members are going to meet the ... basically, all of the people are in charge of this, the Ministries and everything, to bring this up first. So, with their support then only we can go into supermarkets and everything. But the way it is done is basically like if you know applications like Uber or Grab, there's also like the more you work or if you achieve customer satisfaction or

something, you will get points. And using these points you can then basically redeem rewards from it. So, you can go to the supermarket and get your necessities. Yeah. So, that's it.

UNIDENTIFIED MALE: Also, one more question. It's about the ... yeah, thank you. Yeah, please.

DEBORAH ESCALERA: [Inaudible].

UNIDENTIFIED MALE: Okay. So, it's not a question but just another comment. I can see the similarity between your application and the Dash, the Precisely platform that you presented this morning, that both of you are trying to connect people and match them with the opportunities that they are seeking for. So, maybe you can have like a brief discussion on how to [apply] more users, civil engineering, civil society, and users coming and involved into the development and the application. Thank you.

AISYAH SHAKIRAH SUHAIDI: Yeah. That's actually a very good recommendation. We'll definitely consider that, [Hadesh].

DEBORAH ESCALERA: Okay. Thank you so much. We need to move on. Our next presenter is Korry Luke from Japan.

KORRY LUKE: Good afternoon, ladies and gentlemen. My name is Korry Luke from Keio University in Tokyo. Today I'd like to talk a bit about – sorry, we'll wait for the slide for a little bit.

I'd just like to talk a bit about my experience doing some student-run network operations that we're doing at Keio SFC. In a nutshell, I'm part of a bigger Internet research laboratory at Keio. There's a few of us from Keio at ICANN. Our network is completely separated from the rest of our university and it's managed mostly by students and researchers and not by professional IT operators. So, this creates kind of a unique environment for students to gain real-world experience doing network operations

For example, some of the services that we've operated over the past several years have been related mainly for infrastructure. So, e-mail for our laboratory members, providing IP address allocations and DNS services for people to run experiments, wired and Wi-Fi connectivity within our laboratory building, and physical server hosting and virtual server hosting for experiments, measurements, things like that.

Many of our lab members also participate in other larger events and do network operations for like Keio’s annual Open Research Forum and other large conferences in Japan such as ShowNet and Interop.

Just some examples of our work. This is actually me crawling under a server rack because I dropped the flash drive. But this is just the picture of our data center. As you can see, it’s very physical as opposed to a lot of nowadays people are moving to the cloud and things like that.

There’s also from Keio’s Open Research Forum in Tokyo. Basically, our entire campus packs up and moves to a conference center very much like this one for three days every November. Part of that philosophy is that we also bring our network with us. So, the idea is that many students from our campus are able to take advantage of Keio’s network services at Tokyo even when they’re presenting.

This is a little bit separate from our research lab as a whole but many of our members also participated in doing what’s called ORF. I’ve kind of told you a bit about what we do but there’s a little bit more to why we do it, kind of the benefits of it. With normal people who owned websites, especially for students, they need to just buy a domain, set it up, kind of spin up like a blog or a WordPress installation and just not really do anything

with it. But by running everything ourselves, there's kind of a benefit of we have the ability to modify and control almost every aspect of it especially because of that physical separation that we have from the rest of Keio. We're not bound to the same bureaucracy and requirements for rules and whatnot.

This also creates this very real-world skillset that I mentioned. It's usable even after finishing college. Many of our alumni have gone to work at large corporations, do data center operations, other things like that, or they've continued on in academia because they have this very deep understanding of how the names and numbers and the protocols that power the Internet actually work.

One of the biggest things that – I guess our lab's philosophy is that you run a service, you find the problem, experiment, propose a solution and it becomes research or it could become research. This is kind of related to what Professor Moriya talked about at the opening plenary, this idea of Yukichi Fukuzawa's philosophies. A lot of this philosophy that's known as [Hāfutīchingu], which is half teaching and half learning – older students are teaching younger students how things work, how to do things while the younger students are also learning. By doing that process, you get a lot more, a deeper understanding of how the Internet works in our case.

However, there's obviously some drawbacks to this. One of the biggest ones is it's very challenging for us to find newcomers and beginners to come in to the space. They come in and they think, "Oh my goodness. There's all these graduate students that are operating all these different services and they seem to know what they're doing. How am I as a first year undergraduate student supposed to get involved?" That's been something that we faced traditionally and a lot of it is similar to the challenges ICANN faces with just getting people to jump in and kind of nudging them along.

The other one that's come up in the last several years especially in the few years that I've been associated with our lab is managing user expectations. There's a difference between a student-managed network and a professionally-managed one. One of the biggest principles of the Internet is everything is done on a best effort basis. But obviously there's a group of eight students versus someone who's used to using Gmail. There's obviously going to be some kind of a big gap between what users expect for up time and things like that.

The other bigger one is academia, we're always searching for new research topics. Especially for newcomers, they may not see e-mail as a very new or interesting topic. Part of that is the distinction between what research is and what operations are. By running a service, it's something that's admirable but it's not

necessarily something that can become a good research topic. So that's another challenge that we face, especially as the Internet has gone significantly more complex over the past several years.

Related to that growing complexity is how to pass the torch as older students graduate and younger students come in. So one of the biggest problems that we've also faced is kind of inventory management. Who did what? When was this created? How was this created? These different servers – how are they updated? Who manages them? Who created them? Things like that.

Finally, to summarize everything up. Some challenges in our future work, as I mentioned, modernizing, keeping up with changes in technology. For example, one of the biggest talks at ICANN has been supporting DNSSEC. We're associated with the WIDE Project and up until I think last week or two weeks ago, the entire WIDE domain did not fully support DNSSEC. So now that our parent domain does, we can now begin to try to support that. Things like that, staying on top of new developments especially related to security and reliability. And as I mentioned, as people come and go, maintaining interest as the technology evolves and keeping track of our documents and making it easier for us as operators and for end users to stay on top of things.

That concludes my presentation. Does anyone have comments or feedback? I'd love to hear.

DEBORAH ESCALERA: Thank you, Korry. I think there's somebody running down with the question. We're going to limit it to two questions because we're running low on time. Let's hear from the audience first. And NextGen, if you have questions, we'll hold them until the end. Thank you.

UNIDENTIFIED MALE: During lunch I went to the gym and ran three miles, so that wasn't very difficult to run there.

Korry, that's actually rather fascinating. How is the structure people-wise in the lab? You refer to ICANN as a model and obviously there's a hierarchy of people organization-wise. What's the hierarchy in the lab there? Is everyone the same powers and responsibilities? Or do you have a hierarchy?

KORRY LUKE: Within the research lab at Keio SFC, there's different groups for people with different specialties. For example, there's a blockchain group, there's people working on network research. It's kind of split up by topic. The research group that I'm part of

and some of the other people from Keio that are here at ICANN, we're part of that network. We're interested in connectivity, things like IoT. That small group within our larger lab is responsible for the operation of the network. But then at the same time, we're also affiliated with this multi – I guess cross-university project within Japan called the WIDE Project which is one of the local host committee members. It's really complicated, which I guess you could say ICANN also is. Within our university, there's some smaller groups. But then also between other universities, there's some linkage as well. Does that answer your question?

DEBORAH ESCALERA: Okay. Thank you. We're going to move on unless we have another audience question. Okay, thank you very much, Korry. Fascinating.

We're going to move on to our next presenter, Jaewon Son. Jaewon from Korea.

JAEWON SON: Can we have the slides please? Can the IoT Help us to Avoid Disasters?

Hi, I'm Jaewon from Korea. This is my second visit to Kobe and second ICANN meeting. First, I'd like to share my last visit in

Kobe. Do you know in Kobe in 1995 there was a huge earthquake? Since then, Kobe University made the Disaster Studies Department to study more about disasters. So in 2017, I was here to learn more about disaster management. And while I was studying that, I was fascinated to know about that. Every disaster process is having a strong relationship with Internet especially in IoT. Since this meeting is being held in Kobe, I found it somewhat relevant to talk about connecting those things together to share what's on my mind.

What is IoT? IoT is basically Internet of Things. Anything that is connected because of the Internet can be IoT like vehicles, home appliances and so on. What does this do is that since everything can be connected through the Internet, you will have more connections to information. And when something happens and if you do not have infrastructures, until there will something as coming from the other side, just by having the IoT [inaudible] so that – which can be help to have more impact on disaster management.

Before going more deeper into disaster management, I want to talk a bit about disasters. Disaster can be divided into two sectors which has been made by human disasters like car accidents, terrorist attacks and so on. Whereas the natural disaster can be like earthquake, tsunamis and so on. Usually developing countries have a bigger problem when it comes to

disasters because they usually have more population in terms of per region there's more people living in one city. While they do not have good infrastructure like evacuation stairs and so on, they have more severe weather conditions like tsunamis and so on. In this regard, it has been more necessary to deal with these disasters management in this space because of more technological development and modernization. More disaster happening in this century so that IoT has more things to do with disaster management.

When you see the slides, you can see from prediction, preparedness, response, and recovery. These are the things in disaster management and without the IoT or the Internet, those things cannot be connected to each other. Let's go to the other slide.

When the earthquake or tsunami happen [as an] environment, without having the information or emergency practices so that when you see there's like a management and engineering department, and IoT can connect those things together to have better decision making and act on it in the right timing even though they do not have good amount of infrastructures, still they can [act as full] as possible with IoT so that, for example, when something happens, people need to get the Alert from the upper department and also they have to get more information about where should they go for evacuation and stuff. In terms of

everything like this, IoT makes it possible to have people get more connected so that they're able to have less consequences in term of disasters. It also makes it possible to have like two-way communication in between one department and other department. When these things get worse, when it happens to have one team to go to other region or something, IoT makes it possible for another team to come over and have those disaster management process and take it over again because they have already information and already connectivity within each other which provides the flexibility within the team in times of disaster prevention and also disaster reduction.

As I've heard, I have to be done in 10 minutes. I was trying to make less slides. So this is all about it. If anyone has an interest on initiating youth idea or having an interest on disaster management and stuff, I'd love to have a contact with you. Thank you so much.

DEBORAH ESCALERA: Are there questions? Go ahead.

GLENN MCKNIGHT: Thank you for the presentation. Glenn McKnight, I'm a board member with the Internet Society. One of the things we started this year was a foundation. One of our mandates is disaster

mitigation and support. So I strongly recommend that you look into the ISOC strategy in terms of possible proposals or working with other people.

The second thing I can also recommend is working with the IEEE Global Humanitarian Technology Conference they made in Seattle one year and next year in San Jose. But again, one of the opportunities is submission of papers to that conference. Disaster mitigation and support is another strategy as well.

No question. Just intelligence.

JAEWON SON: Thank you so much. I already take that a note.

DEBORAH ESCALERA: Thank you. You might want to follow-up with Glenn after this.

Okay. So we're going to move on to our next presenter, Tuan Do from Japan. From Vietnam, I'm sorry.

TUAN ANH DO: Okay. I will clarify. Hi, good morning. I'm Tuan. I'm originally from Vietnam but now studying in Japan at Keio University. So I came from both countries. My presentation today is about Decentralized Domain Name System and we're going to review

with the case study of Namecoin which is believed to be the first implemented decentralized DNS in the world.

If you were at the public forum yesterday, I believe that we owned it. There was a question about the relationship between ICANN and blockchain. So the COO of ICANN, he responded that ICANN is a unique naming identifier and the underpinnings of the Internet infrastructure. And blockchain technology and its application can be built on top of what ICANN is doing. I do hope that after the presentation, you will have a better understanding and an overview of what is blockchain and how it can be applied into different domains including domain name registration.

First, I want to talk a bit about the terminology that we use in network protocol and network design. That is Zooko's triangle which is named after the American computer scientist. In the process of naming of participants in the network, our Zooko's triangle described three desirable properties of the name which are human-meaningful. So the names should be easy to remember and meaningful. The system should be secure and naming resolution should be decentralized so we can translate between the name and the entities without going through any third party or central authority. So in reality, there can be only two or three properties that can be achieved at the same time for naming.

For example, for the domain name system that we are all familiar with, it has global namespace so you can access the same domain name everywhere in the world. It is human-meaningful so you can remember that. But some people they're also concerned that – why the Internet? No one knows the Internet and no one controls the Internet. There can be a third party who intervenes into the Internet operations. So, for example, the system root servers can become on high value attack destination for the [main server] entities or in some countries, the government they can – the ISP [to ban] some space with domains on IP address.

That's one of the reasons why Satoshi Nakamoto – if you know him, he is the person who created and deployed bitcoin blockchain and bitcoin cryptocurrencies. He openly supported the idea of decentralized DNS. And Namecoin is actually on the instance of that one. So the vision of decentralized domain names is to have a system with global namespace, human-meaningful names, and as much decentralized as possible. I'm not saying that entirely decentralization but as much as decentralized as possible.

A bit about the Namecoin design. If some of you are familiar with blockchains or have ever read about blockchains, the Namecoin blockchain is quite similar to [all those]. Basically it has a chain with blocks of transactional data and the blocks are securely,

cryptographically connected using the hash function. The Namecoin is [default] bitcoin so it has similarity in the design with bitcoin. It can merge-mine with bitcoin so anyone who mine bitcoin, they can also choose to mine Namecoin at the same time.

So, .bit. What makes Namecoin different from bitcoin is the way that Namecoin enable name-value pair storage and trading which is properly suitable for domain name registrations and value storage. So, .bit is actually the top-level domain that is an example of Namecoin. If, for example, I want to register for the ICANN.bit domain name, so firstly I need to execute a transaction NAME_NEW. So, to [bring up] a name, I want to check the availability of the name. If it is still available then I can reorder that. Just how [inaudible] quick to register. Then after that, I can own the Namecoin by doing another transaction called NAME_FIRSTUPDATE. Then I can own the tokens representing the domain name of that one. If I want to pass the domain name to someone else, I want to transfer or to sell that to someone else then I can run the NAME_UPDATE transaction.

I believe some of you might think that the Namecoin design it can encourage what we call cyber squatting. Actually, the [inaudible] community of the Namecoin, they also consider about these situations. One of the choices of Namecoin is what we call trademark infringement. Trademark protection can only

be enforced by cryptographic encoding design like computer science language. In ICANN’s multi-stakeholders, we have different groups coming from different backgrounds – legal policies, civil society, and users – and we come together to discuss how to operate the ICANN’s [goals]. But in Namecoin, there’s only the computer science language that could be implemented. The difficulty of that is we need to condense so many different variables from different aspects and we need to consider that and to bring that all into one language of computer.

One of the research from Princeton University, they analyzed the Namecoin’s .bit domains and they detected that at least 75% of them as squatted. It can be used for censorship resistance and hijacking–purposed squatting.

Another tradeoff of Namecoin is scarcity of meaningful names like when people do cyber squatting for negative intent of the person to get the benefit. For example, you want to sell that at a higher price to the person who wants to own the domain names.

Another tradeoff of Namecoin, that is why it’s not popular at the moment is resolving .bit domain is not that familiar with non-tech persons. So to be able to access .bit domains, you need to run, for example, a DNS resolution software or you need to

directly connect to the DNS server to be able to resolution the domain names and the IP address.

Another problem is out of more than 100,000 registered domain names, only 28 of them are unique and serve non-trivial content. That's why we see that it's not very popular at the moment.

Another problem with Namecoin that is relating to the overall blockchain system is the irreversible transactions. For example, if malicious entities they attack the system or they change the owner of the domain name, it is impossible to reverse the actions.

Back to the fundamental question: is it viable to create a decentralized domain name system like that? Frankly speaking, I believe that in the technical sense, in the narrow sense of technology it's possible to do that. But mapping entities to names, and names to IP address requires more than purely technical solutions. As we said, everything is done in the algorithm scheme so there's no way if there's no legal framework, no legal jurisdictions that will be in the system, and we need to have more policy framework and support from multi-stakeholders into consideration and to discuss and to design the system. And also the demand and adoption of the public is not that much.

Anyway, Namecoin blockchains, talking about the scientific achievement, they implemented some potential applications of blockchains. For example, they can do 2-factor authentications over blockchains or they can do also [match signatures] for the network.

That is my presentation. Thank you so much for listening. I'd love to hear your comments and questions. Thank you.

DEBORAH ESCALERA: Thank you, Tuan. Are there any audience questions for Tuan?
Okay, thank you so much.

Our final presenter is Mariko Kobayashi from Japan. Mariko?

MARIKO KOBAYASHI: Thank you for having me here. I'm Mariko from Japan. I'm also from NextGen. I'm happy to be here. Actually, I'm also from Keio University. There are a lot from Keio University here.

My research is focusing on Wi-Fi network and the [IRT] like the engineering field. But I would like to do a presentation about the Internet governance and the relation with the youth career. So the title is Cultivating Youth Internet Governance Career, my internship experience at JPNIC.

My original motivation is I looked at reports on draft proposal for the new Fellowship program like the budget cut in ICANN in the last year I think. I think they proposed the revised program in 2018. I looked at the report and I know sometimes the investment to this kind of program is difficult. You need some money to support our generation so I'm very grateful for people in the community who prepare for this [future] opportunity for us. I think not only do we just see program but also internship in the Internet governance, our organization or company can be another option for us, so I'd like to talk about it.

There are various leadership programs and [inaudible] for us. I'd like to talk about my Asia Pacific region as example. If you're a student, I think the easiest way is to apply for the regional Internet Governance Academy if you have. Or we have there APIGA (Asia Pacific Internet Governance Academy) which is the five-day workshop for beginners like you where you can learn about the very basic. What is Internet governance? What is the multi-stakeholder mechanism? What is the decision making? You can also learn about some basic kind of [mock-up ICANN counseling] you can experience there. I think this is very good for the younger students for the first steps to join this community. They also have a fellowship for the Asia-Pacific region. You can apply for it and then experience very first step into Internet governance.

After APIGA, we have several firsts. I would like to talk about regional things first. There is a regional Internet governance forum we call APriGF and they also have a fellowship. You can have the mentoring program and also you can join the Newcomers Day and Newcomers program to learn about the regional Internet governance and the Internet Governance Forum. Also you can make friends on the same generation, and I think it is good too for you.

Then also in Asia Pacific we have the school on Internet Governance we call APSIG. I have never experienced on this campus before but they have Amazon at APSIG fellowship I think. I think they also provide fellowship and some leadership program to attend the global Internet Governance Forum. So it should also be an option.

As you know, ICANN has two leadership programs I think. One of them is the NextGen like what we are joining right now. But it is limited only for students. It's only for students and the graduate students. In the case of ICANN fellowship, I think not only students. Other people can apply for them.

IETF is very technical community I joined. But they also have ISOC provide an IETF program on some countries, not for all countries. But I think some of you can apply for it.

Also the global Internet Governance Forum has this kind of leadership program for youth. Fortunately, there are various opportunities for young students and young people to join the IG community nowadays.

This is the example. However, there's I think one problem. In this process, we get a scholarship or fellowship and then attending a conference or start joining the meeting. Learn about the structure of the organization and how the meeting goes on or decision making and the decision making process. Also what is the hot topic right now in the community we can learn about. If possible, we can also have a presentation like that or organize a workshop if you're in Internet Governance Forum, for example.

I think the fellowship program and also leadership program is focusing on the several weeks after, I think before and after the conference week. I wondered what's next. After finishing the conference, I think there is no this kind of leadership program. So I think continue to involve in this field is somehow difficult for us.

Also I wonder how can we build a career related to the Internet governance. I think not so many can finish work on this community. So it is also sometimes difficult for us to find related [inaudible] to work after graduation.

Two years ago, I applied for JPNIC Fellows. They did not say it's the same but the kind of internship program. I've experienced almost 9 months in JPNIC which is the national registry [that] allocates IP address and the AS numbers in Japan. Not only allocating the Internet resources, they actively commit to their local Japanese Internet governance community to organize event or share their latest information about the Internet governance to the Japanese community.

That's why I decided to apply for this internship. What I prepared to apply for this one – I prepared a resume and also the essay. I essay is the kind of cover to the reader. Also I have an interview. It was not so difficult process I think. When I applied for this one, my motivation was those three.

One year later, participating the APIGA program, I'm still a beginner about Internet governance. So I went to do survey and analyzed these IG-related issues. Also, I want to understand organizations such as ICANN or IGF and how's the policies, the decision-making in each policy.

I would like to also encourage more young people to join this kind of discussion and also to the community. That was my motivation to apply. I also talk about it in interview.

This is a little bit not clear. I will talk about what I did in JPNIC. I worked there from the 2017 to 2018. Also one year ago. I have

worked various things that I cannot write the whole of it there so I just talk a little.

Basically, I survey and did analysis of some IG-related topics. For example, I survey about all of the workshops in the IGF 2017, look up all of the content, doing some of the Excel work for that. So what is the most hotter topics in the IGF community in that year. Other work is also I surveyed about some regional IGF like the TWIGF or [whole year] IGF and how they organize their community in there.

When the ISOC board election was taken I think in the last year, my mentor told me, “You have to survey about every candidate for both section in ISOC.” Then just explain which one is most desirable for the board and it was very difficult but interesting thing. I surveyed about each candidate’s background and also on analysis, so who is the best not only their prospective background, we have to consider the diversity such as gender or stakeholders. I think age can also be considered. That is one of the work. I surveyed about GNSO PDP or CCWG accountability. Domestic report – I read it and then summarized in Japanese report.

Also the United States on NTIA I think published their view about Internet governance they call International Internet policy properties in their webpage. There are public comments for this

report. It was the most difficult task for me because they're almost 100 organization and the companies' public comments are there so I had to read all of them and summarize their opinion so it was so difficult. From their analysis, I understand almost all of the company business sector and also the civil society and some of the Internet governance organization very strongly support the multi-stakeholder process in the Internet governance.

Out of the task I published, for example, trends of topics in IGF. What's published as our [inaudible] of publication, Internet [inaudible] which is our annual publication in Japan about Internet or some hot topics. Also on writing a blog post in JPNIC webpage or to share my experience to our young people in Japan. I tried to submit public comments for a new Fellowship program but I missed the date and couldn't work it, so it was my fault.

This is a little example of my work. This is my last presentation slide. What I want to say is there is lots of leadership programs which we can join. So it is very happy. It was very lucky. However, we sometimes wonder about how can we continue to work for the Internet governance even after finishing the conferences or meetings? I like to insist about the internship can be an opportunity. Not only JPNIC, I think ICANN has internship – I know for sure but ICANN should have because my friends

work on internship in ICANN APAC hub and also the IGF has internship opportunity as [inaudible] and also registry and registrar or sometimes public policy in business sector should be optional.

So I propose for this ICANN community to provide opportunity for youth to find their internship in such organization or companies can be more helpful and effectivity considering our career.

That's my presentation. Thank you.

DEBORAH ESCALERA: Thank you, Mariko. We have time for just one question for Mariko. Go ahead, Glenn.

GLENN MCKNIGHT: Thank you, Ms. Kobayashi. To start, on your slide you talked about the Fellowship programs. If I may suggest that for people in the audience and yourself is to consider the monthly calls from Diplo. Diplo is the Geneva Internet Platform. They have monthly Internet reports. In fact, they're reporters from this region that actually talk about trans locally. So I would suggest that. Diplo also has their pillars of the Internet based on – you did a great job talking about the policy issues for ICANN but as you said, there's fellowships, whether it's IGF, whether it's ISOC

or ICANN, all of that stuff, some quite pertinent. May I suggest that you look at laterally on this and suggest to apply for fellowships, whether it's the European SIG or North American SIG or anywhere else, that you could take advantage of, or anybody else interested in getting involved with Internet governance.

And the last thing I'd like to say at 6:30, we're having a social for APRALO, so everybody is invited. It's a chance for you to meet other people as well.

MARIKO KOBAYASHI: Yes, thank you. You mean on ... also mentioned about other regions?

GLENN MCKNIGHT: I'm sorry. What's that? I didn't understand the question.

MARIKO KOBAYASHI: Sorry. I just misunderstood your question maybe.

GLENN MCKNIGHT: Okay, what I can do is chat with you after.

MARIKO KOBAYASHI: Yes, thank you.

GLENN MCKNIGHT: Okay. Thanks.

DEBORAH ESCALERA: Okay. Thank you very much. That concludes our presentation of the NextGen at ICANN64. I want to thank all of our presenters today. You all did a fantastic job and I want to give you a round of applause.

I want to give a special thanks to my program alumni who returned this round as my ambassador to support the program members – Sávyo Morais who was alumni from ICANN62, Peter Cihon of ICANN58, and Haley Lepp from ICANN61. Thank you so much for your support.

Okay. That concludes our presentations. Thank you so much. And thank you to our audience members as well.

[END OF TRANSCRIPTION]