ICANN81 | AGM – ccNSO: DNS Abuse Standing Committee Session
Tuesday, November 12, 2024 – 13:15 to 14:30 TRT

CLAUDIA RUIZ: Hello and welcome to the ccNSO DNS Abuse Standing Committee session. My name is Claudia Ruiz, and I am the participation manager for this session. Please note that this session is being recorded and is governed by the ICANN Expected Standards of Behavior and the ICANN Community Anti-Harassment Policy. During this session, questions or comments submitted in chat will be read aloud if put in the proper form as noted. Interpretation for this session will include English, Spanish, French, and Arabic.

If you would like to speak during this session, please raise your hand in Zoom. When called upon, virtual participants will be given permission to unmute in Zoom, on-site participants will use a physical microphone to speak. Please state your name for the record and the language you will speak, if speaking a language other than English, and please speak at a reasonable pace to allow for accurate interpretation. Thank you. And with that, I will now hand the floor over to Nick Wenban-Smith, DASC Chair. Thank you.

NICK WENBAN-SMITH: Thank you very much, Claudia, and welcome and good afternoon, everybody. I hope we're going to have a useful session, and I look forward to some really good questions. So please prepare your questions as we go through, and we want some good engagement with

the community. I should first start, I suppose, by thanking my fellow members of the DNS Abuse Standing Committee. Any of them who are in the room and want to wave, then they're very free to do so. It is an open committee, and if anybody is interested in the topic and wishes to join, then it's pretty straightforward to volunteer and be appointed by the ccNSO Council.

Just starting. Looking at the agenda for today, the main topic is the results of the second version of our global survey of the ccTLD managers about their perceptions and experience of DNS abuse. When the DASC was set up in 2022, the first thing we did was a survey, and we've repeated that survey. So, this was a first. The survey is recently closed, and this is our first opportunity to look at the high-level outcomes of the second survey and to compare them with the first version of the survey.

So, that's the main agenda item, I suppose. I'm very pleased to have on the panel with me Bruce and Angela, who have been very helpful with me on the survey subcommittee in terms of the workload and management. We also have a couple of updates. I'm very pleased that we have Brian Cimbolic from PIR, who's going to talk a little bit about their work with the Internet Watch Foundation and CSAM mitigation. And to my left, my old friend and colleague, Siôn, who is going to talk from ICANN's OCTO office about the Domain Metrica project that they've got and some updates there. And finally, we always remind everybody about the resources that we provide to all ccTLDs globally.

So, if we can move to the next slide. Thank you. So, this is just a reiteration, because I think it's very important when we talk about

ccTLDs and policy and what the purposes of our terms of reference set us to do. We explicitly are not determining policy for ccTLDs. ccTLDs determine their policies domestically. That said, we do think that there is a benefit in sharing information and best practices, what has worked in other places, what trends we can see, and to collectively put the best ideas together and help people guide through this important topic.

It's a very high interest topic for lots of communities. It's one of the GAC's strategic priorities. And obviously, a lot of our ccTLDs have close relationships with our government. So, it's important that we demonstrate to those important stakeholders that we take this issue seriously and are seen to be on top of the issues. So, here we are raising awareness and understanding, promoting open and constructive dialogue.

And fundamentally, although we're not setting policy, I think we do have an explicit objective to actually push abuse levels down and to demonstrate to our communities that we're responsible entities, conducting our work in the public interest and in the global interest for Internet users, who are ultimately obviously the main point of the open, interoperable Internet.

So, if we can move to the next slide. Thank you. So, we've been very busy in the past 12 months. And I just wanted to summarize where we've got to on a number of those work streams. On the ccNSO website, we now have the abuse library, which has resources in one place, centralised so that everybody can find and access those. Access to information is really important. So, we want to make it as simple and

easy as possible for people to get the best information that they can as easily as possible. We also do have a dedicated email and contact list. You can sign up to receive updates when news items burst or if there's a particular topic of interest. And that's available as a resource to everybody.

The second thing, as I described, we've done two surveys of the state of DNS abuse in the ccTLD world. And we will go into that in the following slides. I also wanted to highlight, and the recordings of these are all available and accessible either from the meeting or from the resource library, a couple of workshop sessions that we've had, which have been very well attended and I think valuable. Firstly, in relation to tools and measurements, where we had ICANN staff talking about the DAR project, we've had NetBeacon present. There's a wealth of free open source resources, which will enable you to have a much better understanding of the abuse that is observed from outside into each ccTLD.

And I think the first principle of managing a subject is to be able to measure it properly. So, we had a focus on tools and measurements in the ICANN Hamburg meeting. And at our last meeting in Kigali, we had a joint session with the gTLD Registries Stakeholder Group about the contractual amendments that have been agreed and were just implemented into the base agreements for ICANN accredited registrars. And the ICANN registry operator contracts, essentially putting positive obligations on industry operators, the registries and registrars to take prompt action when provided with evidence of abuse, which is appropriate to action. So, we've had those two useful sessions and the

recordings are available and we will touch on them a bit more further on in the presentation.

So, if we can have the next slide. So, we're looking at our 2024 survey. We did make some changes in response to feedback from the first survey in 2022. We gave people what we thought was a plenty of time to respond to the survey. But I think what we learned is that human nature meant that most of the survey responses were received in the last week of the survey, if not the last day of the survey, if not perhaps slightly after the survey was officially finished. So, we made a decision to shorten that timeline and see whether that would be still plenty of time for people to respond.

We did, I think, with the benefit of hindsight, having read the first survey responses, see that perhaps some of the questions could be improved, were a little bit ambiguous. So, thank you very much for everybody who did provide constructive feedback on the first survey questions and put some comments in. We went through quite an extensive process as a standing committee looking through the survey questions and trying to ensure that there was no confusion, ambiguity, duplication, or those sorts of issues which can sometimes happen when you get a group of people who are well-meaning but working together to produce an output.

I think, because some of the questions are technical, some of the questions are more general, some of them are policy and legal, so we provided a copy of the whole survey, which could be shared, and then various different people within the ccTLD could put their answers in as

a freestanding document instead of having an electronic survey, which one person goes through has to stop because they need to go to a different department to answer. So, we just tried to make it as easy as possible in terms of we will get asked a lot of questions and asked to complete a lot of surveys.

So, we just tried to make it as easy as possible from a user perspective. I did have some ccTLDs reach out to me through their GAC reps to say that they could not, for various reasons, use the survey tool, and we allowed them to submit a Word document and put that in ourselves. So, we've done our very best to try to help people and to try to collect as broad as possible representation of what's going on globally in the abuse framework for ccTLDs.

So, largely, the survey remained the same as 2022. So, all ccTLDs are invited to respond. We do not require them to be members of the ccNSO. As you will know, I hope, there are quite a lot of ccTLDs in the ccNSO, but by no means all, and it's important that we cast the net as widely as possible. Again, we want to get frank answers to the survey. We don't want people to feel inhibited about sharing potentially sensitive information about their registry operations or abuse levels. So, we do anonymize the results when we present them, and that has always been the same, and I think that's an important point of principle to give people the assurance that the data they provide is going to be used in an appropriate way.

Yeah, so this is here essentially to provide inspiration and to give everybody a broader picture of the ccTLD abuse landscape, and

obviously the purpose of doing repeat surveys is to compare one with the other and say, okay, let's see if there are any changes over time. And that helps to inform the broader work of the Standing Committee. So, for example, at our working meeting on Saturday, we had a very wide participation and we looked at topics for future discussion, including things like the interaction and the Mentimeter poll that we did on Saturday gave us a clear steer that the topic we should be looking at next is the interaction of accuracy of registration data with abuse reduction and mitigation, so very helpful feedback to have.

So, if we can have the next slide. So, just by way of reminder, there are 316 ccTLDs delegated into the root zone, and that includes 61 IDN ccTLDs. So, when we're looking at the survey responses, you have to take into account that of the total number of ccTLDs, about 100 are represented in the survey data, so about a third. And that's because some respondents operate many different ccTLDs, including IDN variants who are also operated by the same ASCII ccTLD manager.

But it is nice to see that all of the 10 largest ccTLDs were included in the survey responses, so that is quite a significant number of domain name registrations in the survey, so the survey is quite weighted. Obviously, we all know there's a lot of pretty small ccTLDs and some of them are not particularly engaged in the ICANN community, but those of us who are engaged in the ICANN community have all been participating, so thank you very much for everybody for doing that. And I know that some ccTLDs for various legal, constitutional, or other governance arrangements are not able to participate in these sorts of activities, and that's accepted and we understand that there's diversity and huge

numbers of good reasons that that thing happens, and that's absolutely fine, of course.

And I think this is a really nice slide here. ccTLDs, although we are outnumbered by our gTLD friends now, since the new round of new gTLDs, there's still a significant proportion of the total number of domain names worldwide registered as ccTLDs. So, you can see here 39% of global domain name registrations as ccTLDs, that's 140 million, and it's pretty striking when you look at the weight of numbers. Obviously, there's a very large number of .com registrations, and then there's a lot of smaller gTLDs, but seven of the largest TLDs, ccTLDs, and gTLDs globally are actually ccTLDs, and you can see from the list where we are.

So, this is a slide that we like to show about the importance of recognizing that not only are ccTLDs different from gTLDs, but within the ccTLD community there's a huge range of diversity. It always makes me extremely proud to look at the geographic diversity, cultural linguistic differences, and I think that's a good representation in our sector of the wider multi-stakeholder model, and I think the ccNSO exemplifies that, so that's a very nice point to remember.

And we need to also continually remind everybody, we are actually quite independent of ICANN. We're not contracted to ICANN. We do not follow ICANN policies or require to use ICANN accredited registrars. We have a range of different registration models, depending on the local, legal, domestic, governance situation in each distinct country and territory which has a ccTLD. I would say there's obviously huge, huge

diversity and that applies to domestic law and there's other factors. I think what I want to say, and it's a slight spoiler here, the amount of abuse which is observed in ccTLDs is low, is the positive message to reinforce there.

So, moving forward to the next slide. Okay, so let's have a look at the survey results. I should say we had about 50 questions in the survey, and this is not a comprehensive download of all 50 question responses passed by geographic or other filter. This is just sort of a what were the striking highlights that we should look at when comparing 2022 with 2024.

So firstly, we looked at survey participation. Because I think if you have any statistical or mathematical background, I think what you're trying to do when you're comparing two data sets is to try to ensure that you are comparing an apple with an apple and not an apple with an orange. So, let's have a look at the survey participation to ensure that essentially by making comparisons between the two surveys, the conclusions that we're seeking to draw are fair to take, i.e. there's a comparable data set to look at between the two.

And you can see here that whilst there's a slight difference in the geographic participation, so European participation slightly increased in the overall survey data, I think at the expense, I think it might be of Latin America, Caribbean. We broadly had pretty much the same number of responses, 56 responses in 2024 versus 57 in 2022. And what I'm trying to say is it's fair to make a comparison between the two

different surveys as being something which is representative of an overall trend or otherwise.

So, we can move to the next slide. Thank you. So, the first point which I wanted to draw everybody's attention to is this column on the left-hand side of the table. So, this slide is a self-determination of how much abuse there is in a ccTLD by the survey participants. And the striking finding from 2022 was that more than a third of the ccTLDs who are participating in the survey explained that they answered, instead of answering how much they had in terms of bands of abuse, they replied we don't know. So, I think that for us was a bit of a red flag in the sense that if you don't know how much abuse you've got, then it's very difficult to measure what you're doing and to see whether your policy and operational interventions are having any effect on the amount of abuse.

So that led in fact to the tools and measurements workshop in the Hamburg meeting. And so, you can see here that there's been a significant decrease in the number of ccTLDs who've put their "don't know" response there. So, I think that's a positive sign. It's still quite a significant number have put "don't know", 21%, but it's down from the 35% that we saw in 2022.

So I think the message there is to continue with our work, to continue promoting the free tools and measurement activities that are available, and to make sure that ccTLDs are empowered, have the tools at their fingertips, many of which, as I said, are free, to have an awareness of what is happening in their own registration database.

So can I go to the next slide. So, the second or third point to make, ccTLDs report, and these are reports which are self generated. So, to an extent, you have to treat them with caution. This is not scientifically rigorous. This is self-certification by a ccTLD. But I think those of us who are involved in the survey are pretty convinced that these are good faith estimates. It's done in a confidential way, so there's no reason to state anything that is not true.

But you can see that the number of ccTLDs in the survey who report less than 0.1%, which is quite a small fraction. So, on the lowest ends of abuse levels, that [audio glitch - 00:22:36]. There's been a big shift in the ccTLDs with very low abuse levels. And some of this is coming from people who probably replied "we don't know" in the last few weeks.

And I've spoken to a number of fellow ccTLDs about why is it that [audio glitch 00:23:04]. It's tiny and some months and nothing. So, that's why it's hard to measure and that's why they reply "don't know". So, we're trying to give them all those factors so [audio glitch - 00:23:17]. But if you look at the literature, [audio glitch - 00:23:26] abuse in 2022 and we have 0.2% in 2024. So, there's been a, I think, too early to call it a trend or a dramatic reduction or to overstate it because it is self-reported data. But what we saw from the two surveys [audio glitch - 00:23:50].

I suppose. I'm not claiming any credit for the global reduction in ccTLD abuse, but [audio glitch - 00:24:06] probably tend gTLD in terms of a larger addressable market to carry out abuse. So, if you register a gTLD domain name, is that just a more efficient tool to conduct abuse as opposed to a ccTLD? And that's possible, obviously. But you see, you

saw from the previous slides, there's a lot, yeah, there's 140 million ccTLD registrations. This is not a minority. There are a lot of [audio - glitch 00:27:41]. Is it just inherent gTLDs, because it's the best way to conduct crime online?

And I was very struck when I attended the GAC session on abuse this morning with the Turkish TLDs presentation on the strong cooperation with their national CERTs. I think that is a [audio glitch - 00:28:12] ccTLDs that we do have very strong cooperation with our national CERT. So, is that one of the reasons why we therefore have less rates of abuse, stronger mitigation? Are we just seen as less attractive targets because we have stronger security and better cooperation with our domestic law enforcement colleagues? Sometimes, very close relationships between the ccTLD manager and the local government CERTs or civil society or other sectoral operators to keep the domain safe.

And we talked about this and it's been raised several times in terms of governance models. Is it that ccTLDs are much more focused on protection of their citizens and of their local internet communities because they're ccTLDs because of the governance model? Are we better at enforcing our own terms and conditions, dare I say it, than the NICAN's contractual compliance department? These are all ideas, these are not facts, these are just suggestions as to why it is that there's such a big distinction. So, that's the first section completed. And if you go to the next slide there's some questions and comments. I'm sorry, I'm not in the Zoom room but if anyone wants to raise-- You're okay.

UNKNOWN SPEAKER: Just a quick notification that there were some issues for people that attended remotely to hear everything but should be fixed now.

NICK WENBAN-SMITH: Okay, thank you. Sorry, we did have a couple of technical glitches in the initial testing but if there are any hands in the room or any questions in the Zoom. Yes sir. Can you please then state your name and then your question please.

RISHI MAUDHUB: Hi there. Rishi Maudhub, former director of CentralNIC, now asking these questions independently. It's quite a job to put together a survey, send it out and hope for responses, so congratulations for pursuing that. In terms of the data that you've quantified and shown on the screen, are the responses based on the subjective interpretation of what abuse is by those ccTLDs that have responded or are they based on a catchment of metrics that are provided by the survey?

NICK WENBAN-SMITH: Thank you very much for the question. That's an excellent question. So, we took a strategic decision, I would say, at the beginning of the DASC project to, although it is a lot of fun, to talk about definitional aspects of what is domain abuse, what isn't domain abuse, I think we wisely decided to not spend a lot of time talking about what the

definition is, so it is quite subjective in terms of what is classified, so that's the first point.

I think the second point is that, or whilst I say that, I think there is quite a high degree of agreement and it is one of the more granular questions in the survey about what do you consider to be actionable abuse in the survey. It is largely aligned with the technical abuses of the gTLD world and the ICANN definition, but we do stray into content a bit more, so we certainly would include certainly CSAM, nearly every ccTLD would count that as abuse more broadly.

And it is a super interesting question because there is a lot of focus on DNS abuse in these rooms, but actually when you talk to stakeholders such as governments, that seems to be a totally semantic distinction, and actually what they are talking about is abuse more contextually in terms of harm. And so, we tried to not lead the witnesses in terms of telling them what abuse should or shouldn't be in their own jurisdiction, because that is a question for each jurisdiction.

We have got more data around what they think is abuse and what they classify as abuse, but there is quite strong alignment around the topics I just expressed. So, it is a good question and it is something that we spend a lot of time thinking about in the survey construction for exactly the reasons that you identified, so thanks, Rishi, for the question.

RISHI MAUDHUB: Just one more. In terms of the responses, I think the stats said there is a third there with every top 10 ccTLD responding. Would the panel

advocate for those 10 largest ccTLDs helping to influence the response rates for those that are smaller or otherwise unable to participate for whatever local reason?

NICK WENBAN-SMITH: Well, maybe. I can tell you for sure we are never going to get a response from .aq, the country code for Antarctica, for example. There are a lot of quite obscure ccTLDs, and it is kind of fine that that is the case. This is not a formal policy setting model. This is an opt-in model. That is the nature of the ccNSO. Yes, of course we encourage people. We hope that ccTLDs are public spirited and participate. We know it is a bit of an effort to respond to surveys and to do this, but it is an important topic.

Sorry, I will shut up in just a sec. Possibly some people don't think it is that of a high interest topic. I think we were a bit behind the curve talking about DNS abuse in the ccTLD context. It is because some of them don't really have any abuse. It is just not that important an issue.

RISHI MAUDHUB: Thank you.

NICK WENBAN-SMITH: I will hand over now to the next slide to my friend and colleague, Bruce Tonkin.

BRUCE TONKIN: Thank you, Nick. We did the last survey and we presented the results. We had questions, I think, in several forums, I think in ALAC and GAC and probably also in the ccNSO, whether the level of abuse was a proportion to price. At the time, we didn't ask that question. We didn't ask the price question, but we did do some correlation by just basically looking at the price on the websites of various ccTLDs and mapped it against the data. We weren't able to see any correlation.

This time, we asked the explicit question, so we asked the respondents to indicate what price range they were operating in. What it is showing here, I guess, if I look at those that are less than US$10, 19 of those have got less than 0.1% levels of abuse and 4 of those have got higher levels and 2 of those over 0.15%. Overall, there is no real correlation to show that low prices are leading to high levels of abuse.

One of the reasons for that, potentially, is that the low pricing is often in proportion as economies of scale to the size of that country code. You tend to find that some of the ccTLDs in the top 10, some of the largest ccTLDs do have pricing that is cheaper than smaller ccTLDs, but in proportion, they also invest in anti-abuse. Just because the price is cheap does not mean that ccTLD does not pay a great deal of attention to keeping the abuse low.

I think it is also partly related to a lot of those larger ccTLDs are also not-for-profit. They care about the reputation of their ccTLD as much as the revenue they are getting from the ccTLD. The combination of that high volume investing in abuse and preserving the reputation is showing out in these results that the level of abuse for lower price names is actually

very low. I am happy for people to interpret the data differently, but that is the data that we are seeing. I am happy to answer any questions. Yeah, go for it.

ROELOF MEIJER: Bruce, I have a question. Can you understand me? In the comparison of the prices, did you make a distinction between registries that have different prices? For instance, they have premium domains, they ask a very high price to get, and they have non-premium domains and they are very cheap or even free, and registries, for instance, that have across-the-board low or very high price, like .xyz, that was for free in the beginning.

Because I have the feeling that because you mix a lot of the different price models, that is the reason why you see no correlation. I also feel that .xyz is an example where there seemed to have been a correlation between the domains being for free and the fact that they were being heavily abused. The same with .tk, by the way.

BRUCE TONKIN: Yeah, and I guess there has been some different business models that I guess outlier business models, and certainly in the time of the 2022 survey, there was some of those domain names like .tk had high volumes of free names. That changed in the 2024 survey data, so we did not have some of those same business models operating. We kept the questions simple, so we are just really saying what is kind of your standard price, if you like. So, yes, there would be some CCs that have

premium names, and also some CCs do promotions, and sometimes those promotions are on the freemium model where you give the names for free, hoping that you get renewals the following year.

I think some of those free models are a bit less prevalent now, because I think a lot of the CCs that have tried those models, while they lift their registration numbers, they also lift their abuse numbers, and so they are perhaps less prevalent in the market than they were. But yeah, these prices are, if you like, they are standard prices. They are not promotional prices, and they are not premium names. We just ask the question, what is your price point?

NICK WENBAN-SMITH: Yeah, I mean Roelof, I think it is also, there are so many different models across the whole CC community. Obviously, .xyz is not part of this. And one does hear about in the gTLD, while bulk registration and promotional events have been a bit of an issue, I do not sense that that is such an issue. But it is a difficult question to ask when there is such a diverse data set of people in different models. And to be clear, this is the price as between the registry and the registrar, which we were looking at. Some CC registries do not use registrars, so you have to treat it a little bit with caution. But I tried as hard as I could to make a positive correlation between low price and high abuse, and I could not do it.

BART BOSWINKEL: Nick, Bruce, we have a question online. It is going back to the previous section. I am in the back, but I will read it. The question online is, what

are the categories to consider DNS abuse or not? Is there a reference you may refer us to? I mean, it is said some considered abuse and some considered not. And the question is from Riyad Sera.

NICK WENBAN-SMITH: Yeah, thank you for the question. I think it is a similar question from Rishi at CentralNIC around the difficulty within the ccTLD landscape of coming up with a uniform definition of DNS abuse. I think largely we asked whether the specific categories listed in SAC 115, that is to say phishing, malware, botnets, and spam when used as a vector for any of the above were in it. And pretty much those are all standard. But we left it, as I said, to a survey respondent to determine for themselves what they classified as abuse, understanding that that does vary quite significantly from jurisdiction to jurisdiction.

BRUCE TONKIN: Yeah, I think certainly when we were using the term DNS abuse, that specific term, we defined it as per the gTLD contracts. But we did have other questions about different types of abuse as well. So, we asked what action ccTLDs took against different types of content. We don't have those results here today, but there were some other questions that dealt with broader abuse, I guess.

UNKNOWN SPEAKER: A question?

NICK WENBAN-SMITH: Yes. Please raise your hand, state your name and your question, please.

UNKNOWN SPEAKER: Okay. My name is [inaudible 00:42:30] for Chad. In the case of Chad, the price is low for us. The government that manages. But the price is higher for registrar. What policy should we adopt?

NICK WENBAN-SMITH: Sorry, I struggled to catch the question, but it's about the link between price and abuse levels, right?

UNKNOWN SPEAKER: I say, in the case of Chad, the price is low for us, the government that manages .td. But the price is higher for your user.

NICK WENBAN-SMITH: Yes, that's completely right. So, most registration models and as a survey respondent, as a ccTLD, we don't know for sure what prices our registrars are selling to registrants. And there is a large variety of different models. What we do know is how much we charge our registrars, which is usually a standard price, a standard fixed price for anti-competition reasons. We try to treat all of our registrars the same and charge a single tariff in general.

It's a very complicated question when you look at the end price to registrants, because registrars are not just providing domain name registration services, they're also providing hosting webmail and

sometimes the price of the domain name registration is bundled up with other services. So, that's why we can only ask questions. But the reason why the question is in the survey is because I hear many times that one of the problems of domain names is they're too cheap. And cheap domain names is the same thing as high abuse rates. So, we specifically have asked a question to try to investigate whether there is a correlation between cheap domain names and high abuse rates.

And I think it may be different in some of the gTLDs and some specific gTLDs, I know, because it's public and it's been called out by ICANN Compliance that they run pretty much zero cost promotions and they see sky-high levels of abuse. We do not see that in the ccTLD world and it's an important point.

I think Bruce talked about it in terms of the governance model. We are not seeking to maximize the profits because we are ccTLDs. We're here for internet communities. A lot of people were non-profits or government organizations. We are charging a fair price, but I think a low price, for the benefit of the very vast majority of totally innocent domain name registrants and internet users. They benefit from low prices.

But it's an interesting point to discuss. Is it too cheap because it encourages abuse? Because if you follow Freenom, may they rest in peace, had a different model where they had 40 million free registrations and they take a percentage, but then if they don't do enough checks, that's a honeypot for criminals and cyber attacks. So, it's an interesting point to discuss and that's why we've asked the

question and I think that's exactly why we're having this conversation around the policy levers that a ccTLD registry has.

So, what can you do to minimize abuse? Well, is price a problem is the question. And a lot of us from the larger ccTLDs are very proud of low prices because it's a massive consumer benefit. So, if that's a problem in terms of abuse, then I'd like to know about it. But we've tried looking for a trend and it seemed to be that the pricing, certainly within the ccTLD world, is agnostic to the abuse and some abuse occurs in quite high cost TLDs. So, that's why this discussion is there and it's interesting.

BART BOSWINKEL: There is also a hand in the Zoom room from Tomonori Miyamoto. I don't know if he's in the room.

TOMONORI MIYAMOTO: Hi. This is Tom from Japan. Thank you very much for the presentation. My question is about, well, I think that there are several or some ccTLDs that are small and maybe lack of ability or capacities and maybe because of this, I'm afraid there are some possibilities that they do not enough detect or find the abuse. So, maybe this is the result can be underestimated or not. This is my question.

NICK WENBAN-SMITH: Yeah, I think that's a fair question that there are many small TLDs in the world and they don't have the resources to either measure or monitor

or take other action in terms of abuse mitigation. As I said specifically at the beginning, the role of the ccNSO is not to create policies. Our role is to socialize sometimes difficult topics and to try to shed light. And as I said there's a lot of free resources and open source tools available to help ccTLDs, especially the small ccTLDs who are resource constrained.

I think what I hope we demonstrate is that some of the larger ccTLDs are very committed to spending time and effort to provide these sorts of sessions to do exactly, as you say, to help people who don't have the resources to combat DNS abuse. As I see, Eberhard, you have your hand up as well.

EBERHARD LISSE: Eberhard Lisse, .na. All statistics start always with one and I seem to recall we didn't participate in the survey, and I think we discussed it because we had some methodological issues. But we have got two different pricing setups in our ccTLD for local applicants and for foreign ones and we divide this by registrar. So generally speaking, local registrars can only register for local clients and foreign registrars can only register for foreign clients. We find it is very helpful to vet the registrars.

It would be interesting to find where the abusive registrations, what registrars are doing mass scale registrations which turn out to be abusive. We select our registrars very, very carefully, which in a small ccTLD is easier. And we see next to no abusive registration from foreign registrars because that's just too expensive. And on the local ones, we

see very, very little and if we see something, we come down on the registrar so much that it never happens again.

NICK WENBAN-SMITH: Thanks, Eberhard. I don't think that was a question as such but more a comment. But I think it's a very good illustration of diversity within the ccTLDs. As you say, some ccTLDs do have a pricing model where there's differential pricing for in-jurisdiction registrants than for outside of jurisdiction. It means that some of the things we're talking about, and you have to look at it in context. I'm trying to say all the time, the context of this stuff is so important.

And this is not designed to be an academically rigorous paper but more of a trends and observations and points for discussion to socialize the topic and to try to get people thinking a bit about more, what can they do, have they thought about things. So, that's exactly the nice data point. Congratulations on your very low levels of use in the .na Namibia ccTLD. Bruce has a comment.

BRUCE TONKIN: Yeah, just comment in terms of selection of registrars and I guess I'll just make a comment more from .au than anything else. But we have a mixture of registrars. Some of them have large retail registrars. In other words, they sell direct. And some of the registrars use chains of resellers. And we also see the abuse can bounce between registrars. So, you get a particular bad actor trying to register one registrar. We crack down on that. The registrar improves its processes and then they kind

of bounce to another registrar. So, the abuse moves around. That's what I've seen.

NICK WENBAN-SMITH: Thank you. Are there any further questions at this point in time? I'm happy to proceed with the presentation next. So, I'll hand over to Angela.

ANGELA MATLAPENG: Thanks, Nick. So, my name is Angela Matlapeng from Botswana Communications Regulatory Authority, which is the registry for the .bw ccTLD. I take up the role of lead analyst in the incident response team, which extends to DNS abuse as well. So, Nick did mention that one of the additions to the new survey questions included a question on the adoption of AI and machine learning. And we thought as a team that this would be quite an important question to bring to the ccTLD community, as some of you might have been here in the room yesterday when a couple of presenters did indeed show that the ccTLDs are applying some of these techniques.

And as the results have it, we had about 53% of the respondents indicate that they're not already using this kind of technology. We also had 12% say that they were already using AI and machine learning in the ccTLDs for DNS abuse detection. And we also had a very significant number that indicated that they might not be using it right now, but they plan on implementing. So maybe just to bring up a couple of issues that also continue from the presentations from yesterday is some of the

considerations that we might need to look into in terms of adoption of these technologies, right?

So, I did have a conversation with one of the presenters from yesterday and something that we kind of agreed on was that, well, knowing the difference between the two technologies would be a starting point, as this would really help the community to manage expectation of what they need from the solutions, as well as what they have in terms of resources to say is this really what we want to implement. But also, other considerations that came up yesterday had to do with sustainability.

So, for instance, just making sure that as we implement these kind of solutions, we're looking at things like carbon footprint that comes from the algorithms that are being implemented, infrastructure that's been used to essentially store all these large datasets that would need for training. Accuracy also came up yesterday and it's quite relevant to discuss this as it might mean that we might need to collaborate as ccTLDs, possibly even exchange datasets that indicate these kinds of compromises in order to train these models so that they may get the accuracy that we need.

Other concerns that you might think of are legislation that are put in place in terms of ethics, I could think of the EU Act around AI. I think also the US has something on the executive order that requires whoever implements these kinds of solutions to be able to explain the AI or the machine learning that's put in place to say, for instance, whenever

you're going to defer the registration of domains, for instance, there's no bias that's being introduced in the models that you're training.

And you can essentially say that your AI or ML solution is explainable and it's transparent and it's not maybe infringing on any human rights as this was one of the themes that also cropped up. So, I'm just going to maybe pause here and let the room give its remarks in terms of what could be the limitations to adoptions of such kind of technology when it comes to DNS abuse detection, possibly mitigation as well. Thank you.

NICK WENBAN-SMITH: I'll just let people have a couple of minutes, but I think it'll be very interesting because obviously the rise of AI in the past two years has been one of the important industry developments. So, that's a new question which we didn't ask the first time around. And I think it'd be very interesting when we have the next survey in two years to see the difference between AI use and adoption today as it will be in two years time because one supposes that it'll be much more widespread in a couple of years.

And I think Angela touched on some very important questions around human rights impact of excessive use of AI or improper use of AI. And perhaps that's reflected in the numbers that there has not been a wholesale rush to incorporate AI to date, but obviously quite a significant number are using it. So, if we just move on to-- There's a question. Thanks, Rishi.

RISHI MAUDHUB: Hi, thanks. Just a comment that may lead to a question. Obviously thinking back to some of the questions themselves and the responses there, as you've stated based on subjective interpretation, and it's very hard to define exactly what abuse is, although it's clearly the ongoing community effort.

With that in mind, thinking about AI, if you put good data in, you get good data out. Wouldn't it be a tremendous step in the right direction to have better definitions so that people are utilizing the same set of standards in order that AI can generate the type of qualitative outputs that would be necessary to have good data from those ccTLDs to then take actions on? One of the clear dangers here is if the data is not good or if it's very subjective, there could be a lot of false positives and a lot of just bad outputs, which would lead to misclassification and potentially have quite wide damaging implications.

NICK WENBAN-SMITH: No, I completely agree. And talking about definitions, I think the definition of AI itself is an irregular verb in many places, and sometimes people are just actually talking about an algorithm rather than a genuine machine learning step. But as I said, we're looking at trends and things here. So, we just move on. I'm just a little bit mindful of time now. Is it Olga taking the question on abuse causes? Yeah.

OLGA CAVALLI: Thank you, Nick. Thank you very much. So, my name is Olga Cavalli.

NICK WENBAN-SMITH: Olga, there's a bad echo. Have you got two things open?

OLGA CAVALLI: Is it me?

NICK WENBAN-SMITH: You need to put one of them on mute.

OLGA CAVALLI: This is better?

NICK WENBAN-SMITH: Much better.

OLGA CAVALLI: Okay. It was my fault. Sorry for that. So again, my name is Olga Cavalli. I am from Argentina. Presently, I am the Dean of the National Defense University. Previously, I was the National Director of Cybersecurity in my country. And in the ccNSO, I am appointed by the NomCom.

First, I would like to thank all of the ccTLDs that responded. As you can see, this is a very important set of information, not only for the DASC, but also for all of you. So, thank you very much for that. And also, thanks to the team. I found very, very interesting the process of refining

the questions. At least for me, it was very enlightening and very, very interesting.

So, this slide shows the information about the adoption of recent amendments done to some agreements. Specifically, there were recent amendments to the Base Generic TA and gTLD, Top Level Domain ICANN Registry Agreements, Base RR, and 2013 ICANN Register Accreditation Agreement related to DNS abuse. So, the question was, has your ccTLD adopted them?

So, if you look at the numbers, although there is about 30% that said yes, there is also quite almost half are thinking about doing it, planning to, or have already adopted those changes. So, I think that also depends on the relationship with registrars that ccTLDs have. Not all the ccTLDs use registrars, but I think it shows a quite interesting number of ccTLDs in implementing these changes. The rest is not sure, which is not sure, yes, and not currently planning to, but thinking about it, it's more than half of the response received. And then there is about less than half that said no. So, this is the information about adoption of these changes in agreements. Are there any comments, questions? So, this was an easy one.

NICK WENBAN-SMITH: Thank you. Thank you very much, Olga. And as I said, we did in Kigali have a specific session of the leadership team from the gTLD Registries Stakeholder Group come to speak to us about what the actual clauses were and make their case that they were positive additions to the tools that a TLD registry could or should have to combat DNS abuse.

Yeah, I was going to say, if using the example I gave earlier, if you're the ccTLD for Antarctica, .aq, and you don't have any registrants or any abuse, so to speak of this is probably a slightly irrelevant point, but it's interesting in terms of helping registrars have consistent standards or consistent contract terms as between ccTLDs and gTLDs. There's been a shift already, even though the clauses were adopted fairly recently. And I suppose it'll again be interesting to see in a couple of years time when the survey is repeated, how that moves going forwards.

And obviously we're waiting. We've seen, I think the first results of the ICANN Compliance efforts to implement these clauses and to have taken action, in fact, against a couple of contracted parties for breach of the clauses. So, it would be very interesting over time to see how that evolves and whether it's an additional useful step.

Yes. And I guess the other factor is lots of ccTLDs are small. And with the gTLDs, they have ICANN Compliance to enforce the contract terms, especially with registrars who are ICANN accredited. In ccTLDs, that doesn't work because we're not ICANN contracted and ICANN Compliance is not going to do that for us. So, it relies on resources from the ccTLD being put into the contract compliance work. So, it's a slightly more complicated process and requires more resources from the ccTLD manager. But thanks very much, Olga. It's been a pleasure working for you. Thank you for the kind words.

So just in the last few minutes of the session, if we just go forward, you can see here that we had some really nice-- Some parts of the survey allow people to offer free text commentary. So, you can see here just a

really nice set of quotes and feedback around. It's made them think a bit more about abuse, which is very pleasing for me personally because it's specifically one of the reasons why I pushed very hard for the ccNSO Council to set up the abuse committee in the first place. I think it's an important topic and it's nice that we are-- Well, there's one verbatim at least, which shows that we're fulfilling that part of our terms of reference and that makes it all worthwhile from my perspective.

So, yeah, you can see here the challenges of compromised websites, which is obviously a different issue from the malicious registration of domain names and that some of the challenges that people have, false positives, poor quality reports. These are very common across the industry. So, we've got a few minutes left now. If I'd like to, first of all, take an update on the Internet Watch Foundation and some of the free tools that ccTLD is going to be involved. So, Brian, if you just give us a couple of minutes on that, that'd be great. Thanks.

BRIAN CIMBOLIC: Of course. Thanks, Nick. Hi everyone. I am Brian Cimbolic. I work for Public Interest Registry, the gTLD registry operator for .org and some other mission-driven top-level domains. I wanted to briefly provide you with an update on programs that we are sponsoring with the Internet Watch Foundation, which is a non-profit that tackles child sexual abuse materials online.

So, in February of this year, PIR launched an initiative that any registry operator, be they gTLD or ccTLD, can take advantage of at no cost. And so, what we're doing is really the Internet Watch Foundation is

providing two tools for free to any ccTLD operator. That includes domain alerts, which the IWF notifies the ccTLD or the gTLD in real time when it identifies child sexual abuse materials in your TLD, as well as the TLD hopping list, which actually helps prevent the registrations of domain names that are dedicated to child sexual abuse material.

Now, I know probably what some of you are thinking is that CSAM just isn't a thing for our TLD. We never run into this. There's a decent chance that it's not that it's not there, it's that you don't have the tools in place to identify it. And I'll give you just a brief anecdote for us. In the five years prior to working with the Internet Watch Foundation, we had a total of four URLs sent to us alleged to have child sexual abuse material. In the five years since working with the Internet Watch Foundation, that number was 5,700. So, it's not that we didn't have CSAM in the TLD, it's that we didn't know how to find it.

So, results so far this year, just nine months since launching it, 52 TLDs are enrolled in the program that previously weren't. That includes 20 registries and of that 10 are ccTLDs. So many of this room have already actually taken advantage of this program. And it covers more than 40 million domain names that didn't have the tools in place to identify and address child sexual abuse materials online.

So just a plug, if you are interested in this program, again, both of these programs are completely free to any ccTLD operator that's not already an Internet Watch Foundation member. I will post the link in the chat. I will also provide my email in case anyone has any questions or anything. And to be clear, PIR, we are only the sponsor of this. We will

not receive any of your reports. We will not review anything that goes on between you or the IWF. We are only the sponsor of this. Happy to take any questions. Please do take advantage of it if you haven't already. And thank you very much to the ccNSO for allowing me to give this brief plug.

NICK WENBAN-SMITH: So, I think it's a very important area and I think it's quite striking. Yeah, it's a great free tool. It's something we can't very easily go and investigate proactively. It's a criminal offense to do that and what to find it in your ccTLDs. So, the Internet Watch Foundation is a very important resource and it's fantastic that PIR are providing that for free.

BART BOSWINKEL: There is also a question from Atsushi.

NICK WENBAN-SMITH: Okay, please. Yes. Go ahead, sir. Please state your name and the question.

ATSUSHI ENDO: Thank you. Atsushi Endo from .jp for the record. Thanks, Brian, for sharing the information. I'd like to announce that the .jp recently joined the IWF. So, is there the other ccTLD colleagues who has an interest in this? Please join. Thank you.

NICK WENBAN-SMITH: Thank you very much. And it's good to hear a real-life example of a ccTLD taking advantage of these resources that we're providing as core part of our mission. Now I'd like to hand over to Siôn Lloyd from ICANN staff for a little bit of an update on the Domain Metrica project.

SION LLOYD: Hi there. Thank you. Thank you for inviting us to speak here. My name is Siôn Lloyd. I work in the Security Stability Resiliency Research Team which is in ICANN's Office of the Chief Technology Officer. And I'd like to talk about a project that we've just released called Domain Metrica.

And Domain Metrica is a system that gathers together various bits of data on domain names and aggregates that, produces statistics, metrics, charts based on that data. And the module we've just released, it focuses on DNS abuse. So, measuring that across various different slices of the data we have across TLDs, across registrars, for example. But the reason I want to talk here is that the module we've released only has gTLD data within it. So, we did not have ccTLD data. There's a number of reasons for that.

There's things that we do by virtue of having access to the zone files that would mean if we included ccTLD data, it wouldn't be a fair comparison to what we're showing for gTLDs. So, for example, excluding domains that don't exist or normalizing to the zone size, we wouldn't be able to do in a fair and consistent way.

So, what we've done is we've used our gTLD data. We've worked with the DNS people. What we've seen is that we haven't had a consistent

and continuous access to those files both to yourselves and to the wider community. So, producing fair comparisons with the other data that we have. So [audio glitch - 01:11:59] stop them participating within DAR. So, we would like to know what can we do to increase the participation, to get more people involved and [audio glitch - 01:12:26].

So, in one session you might get multiple answers to questions that you already have. And then specifically, when we're thinking about the questions to the ccTLD community, we are proposing a webinar on the 4th of December. There's a link there to register now and the timings where we will be going through these questions, looking at different scenarios and what they might mean for both how your data is portrayed and how the system can interact and produce something that's, as I say, as useful as possible for as many people as possible. Thank you.

NICK WENBAN-SMITH: Do take a look at the invitation. Let's just quickly move to the last couple of slides. This is our standard to remind people that's a QR code. [audio glitch - 01:14:12]. So please do avail yourselves of those.

If we go on to the next slide, just a quick heads up that we're looking forward to ICANN82 Seattle. I think the topic for a deep workshop will be on the registration data accuracy, those sorts of questions following the workshop meeting that we had on Saturday. So, look out for that. We will also do a fuller webinar intersessionally on all of the survey responses on all the 50 questions. But that will probably be an online

thing and accessible so that people can view it in their own time rather than take up space at ICANN meeting.

And finally, on the stroke of 75 minutes, if we go to the last slide, please do take a minute to help the meeting organizers, the MPC, the meeting program committee. Please do take a minute to help them in terms of session usefulness. And obviously, for all of us putting our time and resources into organizing these sessions, any feedback, good or bad, is very helpful for us when we're trying to tailor these sessions towards people's interests and to maximize participation and engagement across everything.

So, I'd like to finally thank everybody who has participated. I thank all of my wonderful panelists, Olga, Angela, Bruce, Siôn, myself. Thanks to Brian. Thanks to all of the members of the DNS abuse standing committee. Thanks, everybody, who's asked questions. And I hope it's been interesting and informative. And yeah, see you next time. Enjoy your coffee break.

**[END OF TRANSCRIPTION]**