
ICANN78 | AGM – At-Large EURALO Plenary Multistakeholder Governance for New Internet Infrastructures
Wednesday, October 25, 2023 – 9:00 to 10:00 HAM

YESIM SAGLAM:

Hello, and welcome to the At-Large EURALO: Plenary Multistakeholder Governance for New Internet Infrastructures: SpaceX, IRIS2, and Equitable Internet Access for All. Part II: An Open Policy Session. My name is Yesim Saglam, and I'm the remote participation manager for this session. Please note that this session is being recorded and is governed by the ICANN Expected Standards of Behavior.

During this session, questions or comments submitted in chat will only be read aloud if put in the proper form as I've noted in the chat. I will read questions and comments aloud during the time set by the chair or moderator of this session. Interpretation for this session will include English, French, and Spanish. Click on the interpretation icon in Zoom and select the language you will listen to during this session.

To ensure transparency of participation in ICANN's multistakeholder model, we ask that you sign in to Zoom sessions using your full name, for example, a first name and last name or surname. You may be removed from the session if you do not sign in using your full name. With that, I will hand the floor over to Sébastien Bachollet, EURALO chair. Thank you.

SÉBASTIEN BACHOLLET:

Thank you very much and thank you very much for coming to this session. It's one of the policy sessions organized by At-Large during,

Note: The following is the output resulting from transcribing an audio file into a word/text document. Although the transcription is largely accurate, in some cases may be incomplete or inaccurate due to inaudible passages and grammatical corrections. It is posted as an aid to the original audio file, but should not be treated as an authoritative record.

this meeting. One important word, it's second session. It's not to repeat the first one, but we had a session online to set up the landscape, and we hope to have like that more time to discuss in this room as we are face to face. And I would like really to thank Joanna Kulesza who organized all that. It's her success and we'll give her the floor to run the meeting. Once again, thank you very much for coming this morning. Joanna, the floor is yours.

JOANNA KULESZA:

Thank you. Thank you very much, Sébastien. And my sincerest thanks to the At-Large community for hosting this session. My name is Joanna Kulesza, I am the ALAC vice chair. I represent EURALO, and this is my first meeting as a first Polish ALS rep. So, I'm excited to be here. Yeah. Great. Thanks so much. All right.

As Sébastien kindly mentioned, this is a second part of a policy session or a policy workshop, if you will. The discussion we would like to continue today deals with the multistakeholder model, its current state, and its future. And not to discuss the general concept, we have chosen one theme with an open question on how the multistakeholder model applies and will apply to future Internet infrastructures.

Now you could say that the topic itself is not new. We've seen new infrastructures develop as long as there has been the Internet. We've heard John Crane say this a couple of days ago. You could also say that the low earth orbit satellites, which will be our case example today, have been around for a while. But the question we've asked during the first part of this policy session and the technical introductions which were given focus on the rapid development of low earth orbit satellites.

And our distinguished speakers today will provide you with specific policy dedicated action items or questions, tasks for the At-Large community to think about, analyze, digest, and maybe feedback into relevant discussions and communities. You will find our scoping questions on the slide. So, the open question we're posting for discussion here today is whether the multistakeholder model is evolving due to the rapid development of new Internet infrastructures, whether this is a theme that the ICANN community in general or the At-Large community specifically should look more closely into, particularly because of the impact these new infrastructures will have on Internet connectivity.

So, we are looking at this case example from a sustainable development angle. And this is a good time to discuss sustainable development goals because the ITU will be meeting for the World Radio Conference soon. The Global Digital Compact is being developed. So, if the At-Large end user community is to have a voice in those discussions, the component of new Internet infrastructures might be relevant.

The acronyms you see in the title of the session on one hand were used as a teaser. I argue there's no one in the room who has not heard about SpaceX, particularly its role in developing countries or in the regions that are war torn currently. The satellites being switched over Ukraine made headlines everywhere. But there are regions like Europe who have a dedicated plan to further develop these technologies in an equitable manner.

And this is where I welcome our two introductory speakers. We have asked two experienced individuals working on themes of geopolitics,

multistakeholderism, and new infrastructures to give us brief seven minutes introductions. So please do not expect our speakers to go back to the technical introductions as Sébastien said, but rather highlight points of potential relevance to the end user community. Good news is that we will likely not have additional tasks for the org, but maybe as the end user community, there are action items for us to pick up on.

And with this, please let me welcome Dr. Uta Meier-Hahn, who is the advisor for digital technologies and international cooperation, and the German Society for International Cooperation. Uta will tell us more about the guest in her section of today's morning session. Thank you very much, Uta, for being here. Our second speaker today is a good friend and colleague, Pari Esfandiari, who's representing EURALO on the ALAC, representing European end users and is the president of the Global TechnoPolitics Forum.

I have also been lucky enough to encourage two esteemed At-Large leaders to support the session. The Q&A will be moderated by Cheryl Langdon-Orr, who is very passionate about the topic, and it's a passion, as you might already tell, I share. So, I'm very pleased that Cheryl accepted the invitation. And I could think of no one better to set the path forward on this than Jonathan Zuck, an esteemed cat herder and the ALAC chair. So, if there's anything for us to do, I could think of no one better than Jonathan to tell us what it is.

And with that, speaking slowly for translation purposes, I hand the floor over to Uta. Thank you very much for being here. The floor is yours.

UTA MEIER-HAHN:

Thank you so much, Joanna, for this kind introduction. My name is Uta Meier-Hahn, as was said, and I'm with GIZ. And I feel like I need to put a little bit of context around this because GIZ is a public benefit federal enterprise, and we support specifically the German government and a host of public and private sector clients also in achieving their objectives in international cooperation. We work in around 120 countries around the globe on a wide variety of areas, and that also includes fostering digital policy for sustainable development and many other areas.

Now people in my bubble have been wondering why we occupy ourselves with this very topic of satellite Internet or broadband from space speaking more generally. And I will try to shed light on that. Why should interplanetary, as some call it, or at the moment, more imminent satellite Internet in general in the closer orbits be on the agenda of international cooperation? So, I will keep this part very short with two points, and I invite everyone to follow up on this later.

What is the potential impact for bridging digital divides that satellite Internet broadband from space can have. And to my view, there are mainly two points. There can be others, but the main points are that broadband connectivity from space should be regarded as one piece of infrastructure in the mix of other connectivity solutions. Because we know that the digital divide is happening. And by saying happening, I mean, it's a process. The digital divide is growing larger as we do not act.

So, there's the issue of time and urgency in bridging the digital divide. And this is where broadband from space where satellite Internet can

come in as a, if you will, solution for connectivity or as an infrastructure that can provide access connectivity and other connectivity to help reduce the digital divide quickly.

The second point is that, let me say, mature satellite Internet really in lack of a of a good broad term for other technologies that are evolving in the space at this moment, can also offer robustness for connecting critical infrastructures. The example of Ukraine is nowadays familiar, unfortunately familiar with everyone. So, I would just highlight that satellite Internet can sort of function like a safety net for critical infrastructure, so it is about robustness. It can provide communications when traditional local networks may have gone down due to conflict or due to natural or manmade disasters.

But today, I wish to more focus and make the point that international corporation should care beyond these immediate uses and aspects because I would say there's a global dimension of the governance of new satellite Internet. And this is because all global citizens can be viewed as stakeholders in broadband from space because we all, they all share the risks that are associated with this technology, like the serious damage that could occur from space debris or the environmental cost of launching rockets.

And at the same time, in the same picture, there's only a handful of spacefaring nations who host industries that are operating or are at the verge of operating, we should say, their own broadband satellite constellations. So, that is the situation. And we have the still relevant outer space treaty of 1967 stating that space exploration and the use should be for the benefit of all humankind. So how does this aspiration

fare in a situation where for the foreseeable future, the shared fate of most countries will be that they will remain customers of only a few providers of satellite Internet in a concentrated market?

Immediately, most countries may ask themselves if the connectivity options that the providers of broadband from space deliver comes at acceptable conditions for them. Think of what one might call the digital policy quality of that connectivity. This includes varying provisions for data protection or cybersecurity that are attached to this to using this type of connectivity. It also includes considering their dependency on, at the moment, pretty much just one provider, that is Starlink.

But beyond these individual considerations, questions arise with regard to the governance of the emerging technical architectures that go beyond what we already see. Broadly speaking, and this is not my territory, I will highlight this right away. Broadly speaking, though, the further into deep space these pieces of infrastructure and networks extend, the more questions come up because of changing physical conditions, questions with regard to the architectures and the design of the systems.

For instance, as scholars such as Joanna Espana Bernagoul, but also Lardinaz have worked out, can an architectural openness be achieved similar to the one that provided the cornerstones for our terrestrial Internet to evolve? Can the current drive towards incompatibility between networks that emerge there, can this drive be overcome? And once more constellations are up and running, how can interconnection between providers be achieved, both technically, but also really in practice, in the practice of operations? And of course, for terrestrial

hardware and equipment, how can we prevent lock in effects with dominant providers, for instance, by fostering interoperability and standardization of equipment?

Taking a step back, one may weigh in to say that satellite Internet is just one access technology among others. And in that view, the solution to inadequate forms of access would be more access options. However, the limitless resources in orbital space and frequencies prohibit unlimited growth of this industry. And from this follows that there's this privileged position of a few that may give rise to a notion of responsibility that is different from other access technologies.

But will current forms of and fora of coordination suffice to achieve the aspiration of this benefit for all? At GIZ, we recently looked at 10 partner countries on the African continent to better understand what one might call the institutional baseline or the emerging policy environments for satellite Internet. And we found that countries are moving relatively quickly to authorize and license new LEO systems, specifically Starlink is moving there. And just to give you some examples, Rwanda, Kenya, Mozambique, Nigeria, they all have commercial LEO services deployed in their countries already. Tunisia is considering trialing LEO Internet connectivity, and others are actively deciding what path to take, such as Senegal, South Africa, Tanzania, Uganda.

We also found that all of these countries participate in international satellite organizations. All of them, these few are WTO members. They have experienced negotiating issues at the ITU World Radiocommunication Conferences, and they also have experience in introducing other satellite systems such as VSAT systems into their

connectivity ecosystem. They are all also members of the African Union, which is actively examining issues related to data localization and cross-border data flows, which are so relevant for policy makers and, yes, and governments in this space.

Now all this will have provided most of these countries and the regulators with years of experience and skills to handle LEO satellite Internet. That is good news. This all sounds good, and we can build on this. This is an avenue that we must pursue working, for instance, with such regional champions. Now I will come to an end only with this question. How will these memberships that I just mentioned, how will these memberships and these signatories help them concretely in ensuring that they are not left behind in system design?

The World Radiocommunication Conference allocates frequency bands to types of services. It does not decide about which particular system will populate or use those frequencies. So, I will end with this open question. Where are the fora to feed concerns by all stakeholder groups, not only nation states, into the development of space-based Internet in a meaningful way to achieve what we are looking for that is equitable access for all? Thank you.

JOANNA KULESZA:

Wonderful. Thank you very much. A very insightful rich presentation. For the sake of time, without the summary, I'm going to hand the floor over directly to my ALAC and EURALO colleague, Pari Esfandiari, Pari, the floor is yours.

PARI ESFANDIARI:

Pari speaking for the record. Thank you, Joanna, for inviting me. And thank you, EURALO, for offering us the opportunity to discuss this timely topic. As explained so far, a new technology involving low earth orbit known as LEO satellite promises to bring high speed Internet to every corner of the planet. By 2030, some 60,000 LEO satellites is expected to envelope the Earth, enabling everyone access the high speed and reliable Internet. It enables access in rural or remote location, in ships and airplanes, and also during disaster response. Other potential use cases include Internet access for remote monitoring such as sensors for earthquake, bushfires, and floods among other things.

Now this is a tall order and a desirable one. The transformative power of the Internet is well understood both in our daily lives and as the foundation of digital economy. The Internet is also a critical enabler in achieving the sustainable development goals. As For ICANN, it's committed to digital inclusion and bridging digital divide.

However, there are many concerns. Security is a big one. LEO system and new layers adds new layers of complexity to the already complex Internet infrastructure. It involves ground stations linking the satellites to the Internet and ground terminals used by users to connect to the satellite, then there are many satellites and points of receiving and signaling may not be the same, all making securing the system more complex.

Capacity is another concern. As yet, it has not been put to test. It's not clear to what extent it will hold its promise of reliable speed and at what point it will reach its capacity. With Starlink, currently the only game in

the town, there has been reports of reduced speed in some areas. Reliability of services during solar storm and other space weather conditions are not well understood. However, in February 2022, SpaceX reported the loss of over 40 satellites to solar storm.

Another issue of concern is interoperability. Unfortunately, it seems that multiple separate and mutually incompatible constellations of LEO satellites is being created. Considering that the number of appropriate orbits is limited, and operation cost is high, it would be best if LEO systems could operate as a network of networks, but it doesn't seem to be the case.

Also, open standards are desirable. LEO system must provide Internet access like connections received over a ground-based broadband or mobile connections using the current open standards published by standardization bodies.

There are also market concepts. Competition is one. The market currently is limited to a few. They benefit from the first moving advantages and for newcomers, there are high barriers to entry. Optimal orbits or finite resource encouraging some players to obtain it now and hold onto it. This must be prevented.

Then there are questions about the fate of existing Internet operators and potential for consolidation. As for operators' operations, there are questions about the overall available market for LEO-based Internet system. I mentioned several potential uses at the beginning, but none has been put to test. There are also concerns about the business models, their affordability, availability, and sustainability. Various models are tested, and market is evolving. Overall, there are a lot of

unknowns. Then there are environmental concerns over the potential for a large amount of satellite debris caused by the end-of-life cycle of satellite and also unexpected collisions.

Last but not least is the geopolitics. Unfortunately, the transformation to satellite Internet is fueled by the US-China decoupling just as it did with 5G technology. Then the US and its allies restricted the participation of Chinese company in their domestic rule out citing cybersecurity concern. Shifting the focus from standards and procedure to ownership and control over a product or a service.

The central role of satellite technology and Starlink is well demonstrated in Ukraine invasion, but it helps to look back to the origins. Historically, the infrastructure behind satellite communication network included a small constellation with a few large satellites, then configuration could be disabled by destroying one single large satellite within the system. This security vulnerability was highlighted in January 2007 when China conducted a successful anti-satellite missile test. This caused a speculation that the test may have intended to convey a geopolitical signal. Nevertheless, that successful test was influential in advancement in LEO satellite technology where the system achieves resilience by numbers.

Today, dual use technology development and private public partnership have become very popular in this space. For example, one of the top investors include the UK government, the French government, and Indian party enterprise. We also see militarization of this space. China, Russia, India, and the US have developed anti-

satellite missiles as well as electronic jammers and lasers that could disable another country's satellite.

To conclude between commercial interest, geopolitical decouplings and the current public private partnership, I am afraid voices of many stakeholders are lost. It's critical that at this early stage to ensure that multistakeholder model is adopted and collaboration is encouraged. Thank you.

JOANNA KULESZA:

Thank you. Thank you very much, Pari. For the sake of time again, I'm going to hand the floor directly to Cheryl to see if we might have any questions in the room or comments. Questions and comments are most welcome. There is also the option to put your or comments in the chat. We do have a dedicated question's box. But if you put your questions in the chat, they will also be duly noted. I already see a hand shooting up, but I will not moderate the Q&A. I know it's a contentious topic, so we have a professional for handling contentious topics. And I hand the floor over swiftly to Cheryl. Thank you so much for being here.

CHERYL LANGDON-Orr:

Thank you, Joanna. Cheryl Langdon-Orr for the record, and perhaps I'm just professionally contentious. That's also quite possible. I think I need to start off with a little bit of full disclosure here, ladies and gentlemen. I have been an Internet and then later broadband access satellite provided business and individual from quite some time back. So, I've used, with all their faults, geostationary stuff. I have now, yes, in a LEO situation.

So, obviously, you know who my provider is. But it is also not the only mechanism I have to access either Internet or, of course, preferably in Australia it's difficult to get, broadband. I live in a semirural environment. And so, the remote and rural aspects of what we've heard, the benefits are the reason that I moved to satellite options from line-of-sight microwave, which is where my business started. Right?

So, there are real world benefits to all this. But as you've heard, there are also some not inconsiderable real-world risks. What we'd like to do now for the next 20-ish minutes is have your thoughts and a conversation with our experts. We have subject matter experts here who have so much more they could talk to us about. You've had little tasting of the topics. So, let's get a queue.

I am not going to be able to look at my phone and see who is in the remote queue. So, if there's someone in the remote queue, please wave at me and tell me who it is. Okay? I have you. That's great. We have a roaming microphone, so there is literally no excuse for any of you at table or not, I put my eye on you, madam. Put your hand up, we will bring a microphone to you. All right? Because this should be an interactive conversation.

Now whilst we welcome your input, provided it is on topic, on just about anything, we would love you to focus on three questions. And we don't particularly mind what the answer is, but we'd like you to contemplate it. So here, I'm going to have to look at my small screen because I've got no chance of doing it from up there. The questions, just to remind you what they are. Is there a role for ICANN in the forthcoming ITU

World Radiocommunication Conference? Yes or no? You may or may not wish to do that.

This next one, and I am highly biased on this one, should the topic be incorporated into the Global Digital Compact discussions? And that's something that I trust many of your entities and organizations at the grassroots level in your home countries and jurisdictions are already involved in.

And finally, but certainly not the least, is the question of how the end user communities, that's you and me and the person next to you, how can we effectively contribute to ensuring a universality, and an equitable base for these Internet accesses through these now, I would argue, not particularly novel and definitely inevitable infrastructures? So, there's your task. I have Amrita.

AMRITA CHOUDHURY:

Thank you, Cheryl. Amrita for the record, I'll just answer your questions first, and then I will go to the query. Question 1, should ICANN be involved in the ITU discussions? Yes, if they are allowed, because many of the discussions are multilateral. They are nation led, but there are some working groups where ICANN should get into those discussions.

Two, are this part of the GDC? Yes, access happens to be one of the first papers. It was mentioned, though technologies are not mentioned, various options to connect people has been elucidated and people have commented on it, so it is already there.

The third question which you have is what we as end users can do in our own countries. Well, there are various papers, broadband papers, plans, which every country come up with. I can speak of India, wherein we have our national broadband strategy or the other strategies which come out, the telecom regulator comes out with various options. Like now we have a spectrum which is being discussed. Specifically, satellites need a particular spectrum. Would it be unlicensed? Would it be licensed so that the cost goes down?

So, those are conversations where you can participate in your own countries, especially developing countries where people still don't have access. And as you had mentioned, this is one of the options to connect, not the option, but one of the options. So, it can be a mix of different technologies. It could be a community network, for example. It could be a mix of two. So, in countries where you do not have people connected, I think that is the first priority of governments. The geopolitics comes much later.

Yes, geopolitics is there, but the facilities which you and I get, they need to get it. The other thing is you may be having the connectivity. Do people in the ground feel the need to use it? What is going to be the cost? Because if you look at the previous worldwide web consortiums for AI data, the cost of Internet, the cost of access is still higher. Then comes the multilingual part. So, both the demand the supply has to meet somewhere.

So, if coming from a developing country, I would say the first priority is getting people connected. Every technology has a plus and minus, but we have to live with it. Thank you.

CHERYL LANGDON-ORR: Thank you, Amrita. I think I'm also going to open for any sort of right of reply. So, if you get excited about something someone else says, wave frantically. Now I have both Jonathan and Judith, and I think that was the correct order. Jonathan?

JONATHAN ZUCK: Thanks. I'm not going to try attempt to answer the questions just yet because I think that may be sort of what I'm called on to do at the end, but I don't feel like I have enough information yet. But when Joanna introduced the topic, it was about the role of the multistakeholder model in these new infrastructures. And Dr. Meier-Hahn touched on some of the political bodies that are in Africa that are involved in some of these conversations.

And so, I guess, and this may relate to your third question, but what are the points of leverage in this? I mean, part of the issue with the Internet is that it came out of academia and partly and military spending is where it began, but it was able to evolve into something that was sort of interoperable. And this is such a highly commercial venture, and that hasn't been the case thus far. But is it being done at all with government subsidies? Is there rights of way? Are there things like that that could be potential points of leverage that create entry points for the multistakeholder process or for end users sort of writ large governments, people, etcetera, to influence whether or not it ultimately becomes an interoperable system.

CHERYL LANGDON-ORR: What we might do is collect up until and including Roberto, and then go to interactions on those points. So, I have Judith and then I have Roberto. Judith?

JUDITH HELLERSTEIN: Yes. But let me just wait for the person to finish. Okay. Thanks. This is Judith Hellerstein for the record. I'm happy to answer the questions that Joanna proposed. The ICANN is not yet a member of the ITUR. For people who don't really know, at the ITU, there are three separate sections. There's a development sector. There's a standardization sector, and then there's the radio communication sector. ICANN is a member of the ITUD, which is the development sector.

As the ITU is not a multisector body, only the countries can speak unless you're invited to an as an expert panel. So, ICANN has what's called observer status. And as observer status, they can comment, but they can only-- they can only go to the mic if a country invites them or if they're on a panel as an expert. They can join the same thing of working groups. Some of them are country specific. Some of them are not. It all depends on a particular working group on there. There's less rules in the study groups. In the study groups in each one, there's more of a chance for ICANN to participate, but the problem also is it's in a time crunch too. So, that is the nutshell about that.

ICANN's role before the walk is to what they've been doing in the UN and other places is organizing capacity building sessions to train the country people on how to do it. And they also work with different country delegations, specifically in this. So, in the sense, they're not necessarily going to go to the World Radio Conference. It was the three-

week conference. Happens once every four years. But they are always working behind the scenes. They have worked in the past through the RIRs, the regional Internet registries. And that is before they decided to take an active role and join as a member, they had worked through the RIRs, and they'll probably continue that process through with the World Radio.

As for the second question is, should the topic be-- It is unlikely to ever get into the Global Digital Compact because the seven parts have been set, and they're kind of set in stone.

AMRITA CHOUDHURY:

No. Access is there, but technology access is remote.

JUDITH HELLERSTEIN:

Right. So, access is there, and inclusion is there, but it's not-- When they did the sessions and to hone in on each of the different topics, they discuss different areas. Access is there. Accessibility is not really there even through cross-cultural things. But as to the so-- It's a problem getting into the Global Digital Compact, but the Global Digital Compact has more problems, many, many more problems because it believes that you could-- That there's only two. There's governments and then private sector and civil society.

AMRITA CHOUDHURY:

But access is there. They will never say what technology to use.

JUDITH HELLERSTEIN: Right. They will never say what technology to use. It's true. Access is there. But on the latter point in how would-- The role for in that ICANN, but in At-Large and others to get involved with the end users is, one of the people who have been working closely with a lot of the end users are the local libraries.

There there's a group called the Gigabit Library Network which is sponsored by the International Federation of Libraries. And they've been working closely with Starlink and others to provide LEO access in schools and in libraries. So, that's one avenue. Another avenue is to work within your country in a regulator. As Starlink comes and gets licensed in each country, they often put out a consultation and involve the At-large or all end users is to respond and help the government, teach the government about the needs of the end users in the capacity. So, I could go on for a while, but let me just stop.

CHERYL LANGDON-ORR: Thank you, Judith. Roberto.

ROBERTO GAETANO: Yeah. Roberto for the recording. I would like to start with question number 2, picking up on what Judith has said. Basically, the short answer is yes. But the problem is not this one. The problem is continue to work in order to correct the shortcomings, of the Global Digital Compact. So, this is just one of the many aspects that have to be corrected.

I believe that what has been done, so the road plan that has been established will be changed because especially if we provide enough pressure for doing so. So, that means that we as At-Large community, we are by definition a very diverse community. I'm sort of jumping into, question number three, I think that we should use our channels also to make more pressures to impact on the global digital.

Question number 1. I mean, the short answer, again, is yes, but I think that the point is a little bit more complicated than that. I don't think that we can say, okay, well, we give mandate to ICANN to go to the ITU and to tell the story. Here, again, the ITU is a complex organization. It is very reductive to say that is just a bunch of countries. There's more than that, and there's more ways to influence what the ITU decision is going to be. And again, we as a diverse community will probably find a way if we work hard to find some channels, links to the experts that will be invited, that will participate to the working groups.

So, I think that we should also-- This is a general problem of us as At-Large community. We need to be more engaged in the work that we do outside the meetings. And the reason why we are here is because we have a link of a community, and we must have these communities get to work. And in this framework, I think that there's something that we can do.

I make an example. A couple of weeks ago, it was last month, while I was in Tokyo, I was invited to speak to the IPN SIG-- I don't know what's the workshop or whatever. And the question, the point that I've been asked to discuss was to present the process of developing an Internet governance model, how it has been developed over the year, and how

this can be applied to the interplanetary network. That means the satellite links.

So, at least a part of the community that works on satellites and on interplanetary networks, especially the project that is now hot is the lunar project, establish Internet communication to the moon. I think that there is awareness that if they proceed as we have proceeded in under pressure and in panic in '98, '99 to build an Internet governance model and to build the body that was supervising and coordinating these activities. They don't want to get to the same situation. Now there's a narrow group of stakeholders that are interested in this. For instance, there's at least--

Yeah. I'll finish immediately. One of the groups that is painfully absent is the user community because they are going to be the last one to get involved because the user community, by definition, is doing a different thing for living. And so, it's only when they are hit hard by the problem that they will react. And so, again, there's a role for ALAC here, for the At-Large. Because we, being the user community, we need to provoke a reaction by the user community and get involved in this as early as we can.

A very short last comment. We must also do an effort in bringing some of the experts and some of the organizations that are working on that into our structure as individual users or proposing certain academic or other institutions to become an At-Large structure so that we have internally also the knowledge that will allow us to make more up to the point proposals. Thank you.

CHERYL LANGDON-ORR: And thank you. Can I make a suggestion as an action item? That we should link from today's agenda to the excellent presentation that Roberto did do for the interplanetary networking academy. It really was a resource that I think we would all benefit by. I just want to pause briefly. I am closing the queue after Sébastien. And the pause is to see whether subject matter experts-- I can see you, my dear. When you wait long enough for the words to come out of my mouth, you will find it'll be okay. That I want to give better opportunity for some brief reactions, if they have any, for what has been discussed so far. Then I have Vittorio, then I have Hadia. Then I have Sébastien, and then we must have seven minutes at the end. So now I'm asking you all to be brief for a summation. Please, go ahead, Judith.

UTA MEIER-HAHN: Okay. Yeah. I was intrigued by this very difficult question of finding entry point for multistakeholder, and I'm attempting to get some ideas for that. So, for the WRC, please go slow. Yes. For the World Radiocommunication Conference. I feel like there's a general support that the community of international corporation can consider delivering, for instance, by fostering coalition building among parties that at this moment are not possibly coordinated so well. And I will not point fingers, but we know that there are groups that currently don't possibly participate in those discussions to the extent that they could, and also use their votes in the end to, yeah, to underpin their policy positions. So, that may be one way of offering support.

Another way may be vis a vis the providers. As I've tried to outline, I see a situation in which we, for the foreseeable future, will have a few

providers only, and that puts everybody else in the customer position. So, I feel like we should, for the time being, accept this position and then try to find ways for emancipating ourselves as customers. And that could, for instance, again, mean coalition building in the sense that when providers, maybe not just one provider, but in the future few providers, attempt to enter countries.

That there's a sort of an existing network to quickly assess the conditions and maybe work together towards working towards better conditions. And that, again, requires the activity of countries, but it, of course, requires also a civil society that makes claims for a favorable digital policy quality of this type of Internet.

And then, of course, there is a general point to be made that maybe the private sector, the upcoming private sector could also be, well, supported in a way, for instance, by public-private partnerships. But that is something we've been calling for a lot in infrastructure investments, so this is really not only valid for satellite Internet of any kind. Maybe you think about twinning programs for the countries that are considering to become active. And of course, for instance, a system such as Aero Square that is planned for the Europe from the European Union, could also consider to as I would say, sort of given as an in kind contribution parts of the connectivity that is associated with the system through development cooperation, actors for implementers. These are just a few initial thoughts.

CHERYL LANGDON-ORR:

If I can ask, Pari, because you live with us, I'm going to ask you to work with us in what might be a stage 3, that EURALO may have to run by the

look of this, because time is our enemy. So, Vittorio, and then very briefly, Hadia and Sébastien.

VITTORIO BERTOLA:

Hi. Vittorio Bertola from ISO Italy. I confess I came to this session totally unprepared because I saw in the program, I mean EURALO plenary new Internet infrastructure, and I thought we would discuss the infrastructure problems like the concentration of cloud services or the - I mean, this is usually what you discuss in Europe when you discuss about infrastructure or maybe identity and also infrastructure like that.

So, I was a bit surprised about this topic on satellite intent because, outside of ICANN, it's not really a big topic. It can be of interest for maybe the few parts of Europe that are not so densely populated, like the far north or Ukraine for unfortunate reasons, but in most of the rest of Europe, you just get your Internet from fiber optical DSL, and it may be radio bridges if you're really far from a city.

So, if there are people that want to be involved in this at EURALO and of course, the battle to make the IT more open and transparent is always commendable, so go ahead. But at the same time, maybe there should be other priorities for Internet. At least this is definitely, as I see it, not a priority for the European Internet users.

CHERYL LANGDON-ORR:

Thank you, Vittorio. We will take that as a comment. Hadia.

HADIA EL MINIAWI:

Thank you. This is Hadia for the record. So, I would argue that Internet providers through LEO satellites are already incorporated within ICANN's Internet governance multistakeholder model. So, the model does include the Internet service providers and connectivity providers constituency of the GNSO. And that constituency basically includes members that provide backbone Internet connectivity. And there is no reason why that constituency doesn't include also providers of Internet through low earth orbit satellites.

And as it comes to end users' concern. Well, providers according also to the charter of the constituencies are defined by those who provide Internet access and services to users as well as, of course, to content providers. And here, actually comes in the user perspective. I stop here.

CHERYL LANGDON-ORR:

Thank you, Sébastien.

SÉBASTIEN BACHOLLET:

Thank you. If we have news that Doreen Bogdan-Martin will have been in the meeting today with ICANN, it could have been interesting to invite her today, but we didn't know. I wanted to as end user, when I came back from Tokyo in the plane, when we were at the North Pole, staff within the plane say, "Oh, you can't access Internet. There is no Wi-Fi because we are--"

And I know that it's not the same topic, but as end user, we need to have access. And I don't know how it's organized for planes, but it seems to be that it's something in between the Earth and the low satellite.

Therefore, I would like to know if there are something, who could be linked with this discussion. And if not, no. Thank you.

CHERYL LANGDON-ORR:

Well, we might take that as a question on notice. And like many of the questions and comments put in the chat, they will become part of this meeting record. And I think, well, what is obvious from the discourse around this table is that there is an appetite for more conversation to look where possible spheres of influence are, effective influence from an end user community perspective and whereas At-Large, we may be able to bring a voice even at the local level, which may affect not only our jurisdictions, but associated jurisdictions because the whole footprint thing here, it's not very narrow. It doesn't say, oh, dear. There is a border. I'm not going to deliver either side. It's coming from orbiting or higher in space. It just has an MRI, and it works with the array, and it doesn't mind whose jurisdiction it's floating over at the time. So, unless you destroy it, it's going to pass you by in a nice kind of way.

Can I now just hand over to Jonathan who I'm sure is thankful that I've got him a full five minutes, as it said on the agenda, he was due?

JONATHAN ZUCK:

Thank you, Cheryl, and thank you, Joanna, organizing this session. It's very easy in this community to get caught in the weeds of the current problem, the next round, or registrar transfer policy and things like that. And so, I think it's very good. And I think at this meeting in particular, the At-Large community has done a good job of looking ahead, and at

least taking the time to open the conversation about some of these issues.

A part of me personally, remains concerned that we stick to our knitting, though, in terms of what really represents the remit of ICANN. And so, I think that will be one of the challenges to understand what is truly the role for At-Large as one of those potential organizations for influence or instigation, if you will, versus some other organizations that exist such as ISOC or something that might have a broader mandate than just names and numbers.

It's also interesting on this question of interoperability as well because, I believe as Hadia mentioned, at some point, all of this does become interoperable. At some point, it already needs to adhere to standards that currently exist that came out of standards bodies in order to coexist with the other methods of Internet access that we're currently using.

So, I think we need to be also careful about how we layer the conversation about interoperability because there's a lot that's not interoperable between telephone-based Internet and wireless Internet and microwave Internet, etcetera, until it gets to that last spot. So, if it's interoperable at that point, if they are just an ISP, as Hadia pointed out, maybe they already have a place, they already have a home within this environment. And maybe we are barking up the wrong tree to ask for interoperability back at the commercial end of this. And I don't know the answer to this.

The other thing that that struck me as we were discussing this and part of what makes this difficult as so many issues facing the world is that the primary beneficiaries of the satellite Internet are those who

generally have the lowest voice, the softest voice. It's people that are in underserved areas or choose to live in the middle of nowhere, like our friend here. But many people don't choose to live in the middle of nowhere. They just simply do and don't have infrastructure in place. And so, satellite does create this amazing alternative that isn't tied to infrastructure investment in the same way that mobile provided an opportunity for those and sort of created a leapfrog over the traditional means of Internet access we had.

But the fact that that's the case means that I think we do need to really look at points of leverage, look at these deployments because right now, there's such a hunger to get it. A lot of compromises will probably be made by these communities in order to get this Internet access and how to slow down those compromises, I think, will be one of the challenges because it's very difficult to talk to people about a problem they're going to have down the road when they're trying to solve a problem they have right now. And so, that should be part of the conversation going forward.

So those were just some thoughts. I don't know that I have a really concrete cat-herding agenda, Joanna, for you, except that we should continue as the At-Large community to continue to refine and examine what our remit is and where we exist within this community of Internet eye organizations and things like that, and what's the best role for us in particular to play. And maybe our role specifically should be to get them into the ISP constituency to work on trying to get them, as Hadia has said, into the Internet community through the conduit that already exists.

And so, as we celebrate our 20th anniversary as the At-Large community, and we look forward to what we should be doing next, we should be exploring what our priorities are and what are the most important issues for individual end users around the world, particularly those in underserved regions. And this is certainly, as you say, really intersects with the sustainable development goals and the idea of bringing the next billion users online, and we should be looking at the role that we can play. So hopefully that helps bring some sense to what I was listening to as a totally uninitiated beginner.

CHERYL LANGDON-ORR: You've done it. Be good. Thank you, Jonathan. If you will indulge, Joanna, for a couple of moments. We are at the top of the hour, but we did start late.

JOANNA KULESZA: Great. Thank you. No. I appreciate that discussion and thank you for letting me do this. You know I come with an agenda, so I did want to get the feeling of the room, and I understand there's passion. And the only reason we're having this discussion now, because if we do decide that this is important, this is the time to act. Right? Once the frequencies are all allocated, it's going to be too late. And everyone will use SpaceX, and Elon Musk will be able to switch it off when he decides it's appropriate. Right?

And if we do discuss one world, one Internet, and the multistakeholder approach, I just wanted to flag with the help of my friends and colleagues who are equally passionate about this theme that this is the

time to act. As the At-Large working with limited capacity as we do, we decide this is something we want to focus on, we can have more workshops and more opportunities to talk or maybe just policy advice.

I'm going to highlight having John Crane here in the room. Thank you so much for joining us early in the morning. And we have right here. It's wonderful. So, if there is a place where we could funnel all of this passion we've seen in the room, tell us. I don't know what it is. I the only thing I can do is I can start here, have my friends around the table and say, look, that's where it's happening. The press replying vector is here. So, if we can figure out where to take this passion and how to funnel it through a multistakeholder process as opposed to the multilateral one, tell me.

So, that's all I'm in for. I don't have a receipt, and I don't come here with recommendations saying this is what we should do. I don't think it's ITU either. Right? We're not going to come to the ITU and say, look, we have all of these lovely end users in developing countries, and you have to take care of them. They want. But maybe there is a way for us with the limited capacity that we do have to act now. Maybe it's a paper. Maybe it is loop component. The At-Large loop component where we tell our friends and colleagues in developing countries, this is what you should be asking your governments about. Right? Who has the data? Who gets the money? Who gets the access? Simple things like that.

So, that's why I couldn't refrain. I apologize. So, that's the two minutes. And thank you so much, Cheryl, for doing this. And if anyone has feedback, tell me, please. All right. Thank you so much for being here.

CHERYL LANGDON-ORR: Thank you for all joining in, but also thank you to our fabulous interpreters. Thank you to the tech team up the back. And with that, thank you one and all. Bye for now.

[END OF TRANSCRIPTION]