

FINISHED FILE

ASIA PACIFIC REGION INTERNET GOVERNANCE FORUM  
TAIPEI 2016  
A NEW INTERNET ERA

JULY 28, 2016  
TAIPEI ROOM 402 (A+B)  
WS 57

INTERNET POLICY IMPACT ON WILDLIFE ENVIRONMENT  
AND WILDLIFE FRIENDLY PRACTICES

Services provided by:

Caption First, Inc.  
P.O. Box 3066  
Monument, CO 80132  
800-825-5234  
www.captionfirst.com

\*\*\*

This text is being provided in a realtime format. Communication Access Realtime Translation (CART) or captioning are provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings.

\*\*\*

>> EDMON CHUNG: Hello. Hello everyone. Apologies for being a little bit late. On this particular topic, actually we just had a meeting with some of the media here in Taipei, and that explains a little bit of lateness here. But let's get started. I guess everything is ready. I just need my clicker. Okay. Thank you.

So good morning everyone. Welcome. And thank you for joining us here in this session. This is to talk -- really to talk about how Internet policies actually are impacting the wildlife environment. What we are really talking about, I think, is an important part. I forgot to introduce myself.

Hello everyone. This is Edmon Chung from DotAsia. I usually talk about domain names and Internet Governance in a very different aspect, but today we're talking about tigers. And we're talking about wildlife, and how it affects -- how it is impacted by the Internet, really.

There are -- and I think to start off with, it is really related in terms of the sustainable development goals in Internet Governance especially with the Global Internet Governance Forum. Many of the issues now looking at which -- you know, where it ties in with social development goals.

My personal view is that, in fact, Internet is tightly integrated

with many -- or in fact, all of the social development goal, the SDGs, and for this particular topic, of course to begin with, you tend to think that for tigers and wildlife that the climate action, life below water, and number 15, life on land, those are the only sustainable development goals that is relevant to the tiger. But that's actually not quite true.

One of the important reasons or important reasons for poaching tigers is probably economical. The villages that are around the tiger landscapes, they play a big role in the sustainable development of tigers. And in terms of Internet, that creates a relationship as well. Because of the -- because of the opportunity that the Internet really brings to provide e-learning, to provide e-commerce opportunities, to create new opportunities for the population and the economies around the tiger landscapes.

So when we talk about just the -- when we talk about Internet Governance, it's really not just about the technical part of it. And when we think about it -- it's, of course, built on technical but also the legal, jurisdictional, socioeconomic, and cultural aspects. Here, in terms of the SDG, we see a very clear connection there.

And it speaks of that, in fact, the Internet Governance Forum itself and the SDGs -- and the current SDGs are actually built on top -- both of them are built on top of the Millennium Development Goals, which started in 2000 which led to the -- the World Summit on Information Society, and then which led to the creation of the Internet Governance Forum itself.

And late last year, the SDGs were pasted in the United Nations and that is an integral part of the Internet Governance Forum now.

Going back to one of the topics that we want to talk about, perhaps you know that tigers are becoming extinct. What you don't know, or may not be so familiar with, is how the Internet is impacting them. What used to be back-ally trades between, you know, the poacher and the buyer is now moved online to social media sites, to e-commerce platforms. And illegal wildlife trade online is really encouraging poaching to be the number one threat to tigers these days.

But even more interesting how Internet technologies or technology is impacting tigers is that even for an eco-aware tourist, when they go to the forest and they see a tiger or rhino, they are so excited and take a picture and they, of course, upload to Facebook. It's so exciting. But they forget that they geo-tagged the photo and now the poachers have the perfect location for where to get the tiger or rhino or the wildlife.

And in terms of just general background, there is a big drop in terms of the tiger population since about 100 years ago from about 100,000 tigers to just a little bit more than 3,000 tigers. And the number of tigers -- the number of species that become extinct in that period of time is also significant. Just to come back a little bit to what DotAsia does and relate to it, tiger is actually comes only

from Asia and it ties in very closely with DotAsia's purview. And that's one of the reasons why we are starting to embark on this project. But today 13 countries still have -- there are 13 countries that still have wild tigers, and they were all, of course, within the Asia Pacific region. And it matches very well with the DotAsia community.

And with that actually, as part of our programme and our effort to pay attention to this, we're glad to introduce our newest staff member who was born from the WiFi Internet connection that we helped support in Nepal, and this is the little guy who is called Ajitora and is our newest staff member. I was hoping that he could join us briefly, but he seems to be too tired after his session this morning. Maybe just going out for a little sleep.

But anyway, since this January, he has been coined as an official TX2, which is the -- a programme in the hopes to double the number of tigers in the wild as an ambassador, and he's been going to the various conferences to promote the tiger conservation. Overall, there is few areas that the Ajitora programme looks into. First of all is the technology side. We're working with WWF and the other conservation agencies to put technology in the front line. The rangers that help protect the forest, they need technology too to combat the poachers who are often more well-equipped than the rangers themselves. So we're putting wireless technologies and communication technologies into the forests to help them.

On the other hand, of course, awareness. That's what Ajitora does, to bring awareness, especially to the younger crowd. And the reason why we're targeting the kindergarten and primary school students with Aji, is that often their parents are just beginning to consume tiger products, tiger bones, tiger skin, and all parts of the tiger, in fact, and that's part of the mission for, for Ajitora as well.

And one area, of course, the area that we want to talk about today is the policies. On one hand, we know that we want to catch those bad guys who are selling illegal tiger products or wildlife products online, but on the other hand, it's important to realize that it impacts the privacy, the freedom of expression, and many issues that surround monitoring anything, really, on the Internet from copyright to cyberbullying to illegal activities. There is a legal challenge in terms of how that can be done.

So but -- so really on one hand, maybe technology is hurting the environment and wildlife. On the other hand, it's also helping. That's a very important part of it from the technologies of software technology, hardware technologies, camera traps, drone, different things.

In the last little while, Aji has been really starting to travel around to promote the initiative and to let more people know. And based really upon the sustainable development goals, which it's talking really about beyond what we think about green, we think about environment protection, but it's really beyond that. And that's what the

sustainable development goals are really about. When we talk about sustainable development, we usually used to talk about the three Ps. The people, prosperity, and planet. But with the SDGs, actually another P was added, peace and partnership. That forms a very important part of how the sustainable development can actually work with strong institution and an equitable society really without which the policies and really the protection of the environment cannot happen globally.

And that brings us back to the challenge, really. When we talk about policies online, we're really talking about how monitoring -- how trying to catch the bad guys who impact our privacy, our security, and you know, everything we love about the Internet. That's what Aji is about, and that's kind of what this session is about, is to start to embark on a journey about how the Internet can help the tigers and wildlife. But also more specifically, how the policies will have an impact and how the policies should be created.

We're going to -- I'm going to introduce a couple of guests to take it a little further with their presentation, but we'll come back to three key questions. What are the current mechanisms that actually the conservation agencies are using to take down websites or to track the illegal activity online? You know, it's a little bit like tracking malware online as well. On one hand, of course, we want to track down and cut out the malicious or malware online, but we need a process. We need a process that will not infringe on people's privacy, that will not -- you know, while keeping the Internet safe.

And the other question is about immediate liability. When most providers or e-commerce platforms start promoting takedown or curb illegal activity, what are their liabilities? If there is a court order and they start working with different agencies and do certain work, what are their liability? And that relates to the Manila Principles as well, you know, how freedom of expression and other rights should be balanced.

Right. So the principles, the Manila Principles, and how they apply to intermediates even on tackling illegal wildlife trade online.

And finally, I'd like to explore a little bit, is there a possibility of having or developing an industry code of practice to track this rather than depend only on court orders. Is there possibly framework that ISP, hosting providers, and other platforms online can actually work on a -- on a framework or process for takedowns or even for tracking and tracing the activity so that we can curb -- really curb this activity online?

And I guess that's -- and really that's -- what I want to say is that that's similar. You know, having code of practice is similar to a lot of industry associations. ISP associations would have code of conducts for curbing spam, could we use similar code of conduct stuff?

And that brings me to the end of my introduction. And I would like to -- I was -- okay.

>> (Speaking off mic).

>> EDMON CHUNG: Okay. So I'll now pass it to Joyce Wu from TRAFFIC. It is an organisation focused on tackling illegal wildlife trade. And then I'll go to Michael Baltzer, the head of the tiger initiative at the WWF. And then with Kenny, Kenny Huang who has a strong background from ISP and also to give a little bit of the background from ISPs. And then I will ask Chester and Jan to add a little bit. And then try to open up the floor for more discussions.

So let me pass the mic to Joyce, and do you have a presentation? Okay.

>> JOYCE WU: Thanks, Edmon. Good morning everyone. I'm Joyce Wu from TRAFFIC East Asia. My organisation is attached with WWF. Today I'd like to talk with you about the online illegal wildlife trade in East Asia. And yes, just like I say, TRAFFIC is international and we have 24 office working in 5 continents all over the world. We have with WWF and IUCN. And TRAFFIC's vision of the wildlife trade is managed in a way that maintains healthy wildlife population and ecosystem and contributes to the meeting of human needs, and supports local and national economies and helps motivate commitment to conserve wildlife species and habitats.

But this is not always the things we can see these days. There are 25,000 African elephants poached every year. And same as tigers, also face threaten of extinction. Because of the habitat decreases dramatically and population decline because of demand for the trade for the medicine and skin for products.

And we had monitored the wildlife trade since 2005, which is 10 years ago on Chinese language websites. Basically men in China, Hong Kong, Taiwan, and we find there are like ivories, tiger products, and rhino horn products on their websites. Like this is the husking of the tiger skin, and this is a piece -- a small piece of the tiger skin. This is the front. This is the back of the tiger skin. And people sell it as religious relics. And we can also find tiger bone on the Internet, and other species products like the rhino horn carvings and ivory carvings. This is still -- on website and the sort is met from ivories. And in addition to this species, we also found many different species and product on the Internet. Everything you can think about you can find on the website, and including lots of wild animal, even parrots, and tortoise.

And since 2012, January 2012, we started to monitor Chinese language website based on men in China regularly. Monitored it once a month. And you can see the Internet penetration in men in China is about 11% in 2005. But reached to more than 51% in 2015. So there is a great reason that we focus on China's language website. So we monitored 25 to 32 China's-language website, including the auction website and theme websites.

And this is our findings. We see the advertisement, illegal wildlife advertisement, there were around 3,000 to 6,000 of

advertisement between January 2012 to May 2013. And in June, there are 15 leading e-commerce companies in China that had signed a declaration to have a zero tolerance policy for illegal wildlife trade. And next month in July 2013, the advertisement on the website has dropped four-fold. So we can see the significant differences of the illegal wildlife trade advertisement available on the Internet before and after the industry joined -- after declaration joined the actions.

And this is the way we work. TRAFFIC monitor the website regularly and record the detailed information and provided it to the relevant authority and e-commerce companies. And they can work together to bring down all of those illegal advertisement and even take further enforcement actions when it is needed.

And I just talk about a successful model or story that we have because the regular monitoring of the websites and work with the industry and authorities has bring down the illegal wildlife advertisement over the e-commerce website. But at the same time, we find the advertisement over the social media has increased rapidly. The social media users in mainland China has increased rapidly. It is blocking information. Only friends in a group can see the information. So only people in that group willing to report the illegal activities. People outside the group can know what's going on.

So the nature of the social media has put a very good concealment for the illegal wildlife traders. And also the inadequate regulation also helps that. And this is still a part of the example that we found from the social media. These are already big traders that we found from the social media in one month. And this is the items they provided in that one month. You can see every dealer, they can -- they offer more than hundreds or even thousands of the wildlife products. And those are illegal to sell online and even in China in the physical market, you need to -- for lots of items you cannot sell it at all. And for ivory, only the registered items and the registered shops are legal -- are eligible to sell those items.

And these are the images. You can see from the social media. Lots of ivory bangles, tusks, carving tusks, different stuff. And however, this is not a situation that social media wants to see. And they do have the prohibition and punishment for this illegal trade advertisement including suspend the account or take down the account. However, this is not moving very positive or very fast at this moment. And we need more companies in different part of the world to join this actions. And actually, Chinese government just announced a new mandate of the wildlife conservation law and that will be effective, I think next January. The new law prohibits the Internet to provide the service for the illegal wildlife trade. So Chinese government already mitigate it into a law and it will be effective, I think next January. So that's all for my presentation.

>> EDMON CHUNG: Thank you, Joyce. And it's very interesting to observe how some of the key commerce providers are platforms of working

with TRAFFIC, and I guess it really creates an impact on the illegal wildlife trade. But at the same time, in order for -- I guess outside of China especially, the providers to really jump on board, many other issues probably on Internet Governance will need to be dealt with. Before that I'll pass the mic over to Mike to focus a little bit more on tiger, I guess.

>> MIKE BALTZER: Good morning, everybody. And many thanks to Edmon and everybody for inviting me to the forum. It's certainly not something I ever expected to be presenting in, but it is a great pleasure to be here and I find the forum very interesting, particularly this morning with the youth and their ideas that come up to help support tiger conservation. It's been very inspiring to me. Even though I didn't expect to be.

So today is Global Tiger Day. So happy Global Tiger Day. All across the world, we're celebrating tiger day. In some ways we're celebrating it by talking about how fantastic tigers are and how important it is to save them. And in some ways we're using the day to raise awareness about some of the issues. One of the issues that we're raising this year is the problems of tiger farms. And tiger farms are found all across Asia. And you probably maybe recently heard about the tiger farm in Thailand that was hidden behind an entertainment facility run by monks in a temple. And so this was a very famous example of a tiger farm where there are hundreds of tigers being bred and taken off into illegal trade, but these farms are actually found in four different countries actually, Thailand, Vietnam, Cambodia -- I'm sorry, Thailand, Vietnam, Laos and China. There is up to 8,000 tigers inside the tiger farms. I'm just waiting for my presentation to come up. Sorry, have we had problems with it already this morning? Computers know it's Global Tiger Day and not global computer day.

>> EDMON CHUNG: My apologies.

>> MIKE BALTZER: Well, let me start and then we can catch up with the slides once we're there. So about a hundred years ago, we thought that there was probably 100,000 tigers in in the world spread from Turkey across Russia, throughout Asia, all the way down to Bali, but unfortunately, the stories of tigers is a story of decline. And tiger numbers have declined to about 3,200 tigers in 2009. And in 2009, we got very worried about the situation for tigers, and we've been concerned, obviously, for about 50 years about tigers. But now we're beginning to really think there is no way we're going to stop tigers from going extinct. So the tiger range governments joined together and decided to take very firm action, and in St. Petersburg in 2009 there was a summit hosted by Putin, declared they were going to double the number of tigers by 2022. The idea was to get tigers to a safe place as fast as possible. And also to do things completely different. We recognize that the traditional ways of tiger conservation wasn't working, and so we needed to transform the way we were doing things.

And working through the Internet, and technologies that were

now becoming available to us, it's very much part of that new effort which is what I'd like to talk to you about today. So that TX2 goal, doubling the number of tigers is shared by all those working on conservation and is really the inspiration. So the first thing that is driving this decline this tigers, you have -- from Joyce and Edmon earlier, is really the trade in tigers and the demand is coming from many different places for tiger, particularly for traditional Chinese medicine. And the tigers are being used for many different ways and traded in different ways, but really the issue now is the Internet, as you heard.

And the Internet is becoming -- oh, maybe here is the presentation. Thanks. I'll use this. This is going to work from here. Sorry. That is a terrible graph. That is TX2 logo. Here I'm talking about demand. And so this is what you've already heard about the illegal wildlife trade being online now. This is causing a great deal of concern within the conservation world because this is not an area that we have expertise in, but what we're getting very fast at dealing with it and have great partners, just as Joyce mentioned earlier on.

So how are we dealing with it? We're monitoring social media. We have volunteers and networks all across the globe that now can get online and report back to us. And we have what we call a wack-a-mole type effect where every time one pops up, you know, we knock it down until we keep going. But they get -- they get cleverer and more clever, so it's really not the best strategy to deal with it. So you heard from Joyce about how we're working with some of the big web platforms, and this has really been very effective, and we're getting some really fantastic partnerships with some web platforms that are able to help us detect and track and monitor the use of the Internet for tiger trade, and obviously other species.

The technology is also allowing us to really share data across the globe about where tigers are being sold and where they're moving, who is dealing with it. We have incredible systems, intelligent systems, that the police are using to gather information all across the globe about people involved in the tiger trade. And these intelligence systems are used on platforms that police share all across the globe. Again, very effective use of new media, new technologies to really track down those who are involved.

So imagine before, when there was somebody caught in Nepal and with a tiger, a suit case, all that information would go completely online within this web, and so people in Sumatra can compare the results and the information so they can start putting together the intricate web of the crime syndicates involved in tiger crime. It's working. There was recently one in Malaysia who had been involved in Nepal because of these systems.

The traditional way of getting tigers to the market is first by poaching, using snares. This is very low technology. It's just a wire, usually from a bicycle, that is basically placed on the ground



and the tiger will step into it and then get caught and maybe the trader -- the hunter will come and find the tiger maybe a few days later.

And this is sort of the situation we're seeing very often across all of Asia. And then the tigers then very fast go to these sort of markets. This market is Myanmar, supporting coming across the border from China, and tigers are being sold there in traditional ways in markets and in shop, but again this is fast becoming extinct, thanks to all sorts of good work across the countries, but unfortunately, now it's going online.

The parks are very badly protected. These are the typical ranges who are protecting the forests against highly trained professional hunters, and they're often very poorly equipped with bad shoes and sticks to fight off, not only rangers with machine guns, but also tigers with very big teeth. So they're wandering the forests like this, and unfortunately, often get into trouble. So our work is to train them and fully equip them. This is what was going on in many different places. And we use a tool now called SMART. And SMART is a tool that is used by rangers to collect information on their telephones as they walk around and it can track where they're doing patrols and collect the information. And then that's now passed by communications to a center where they can know, realtime, where the rangers are and what they're seeing. And we're happy that we're working with DotAsia on improving the communication technologies with inside these parks which are often very large and very remote, so they can start communicating together across the vast areas. And so this is dramatically changing the way that we're doing protection on the ground to tigers.

And again, so another example of how technology is really making a very big difference for us. So this is -- here you can see the rangers looking much more professional than the guys we saw before. They're able to really track realtime where they're going, pass the information off, and put it all into a database so they really are getting a very smart idea of what's going on in the field and where the poachers might be and where they're patrolling is most effective. So that's one example.

A few more examples are using the GPS and realtime data apps. Where GPS trackers are in wildlife pickup trucks. So we're able to put trackers in wildlife products and see where they're going. We have these large data mining projects for finding out and getting patents, just as I talked about for the intelligence work. We're using the DNA analysis to monitor tigers and identify different individual tigers, and also stripes where we can identify individual tigers very, very quickly. We get thousands of photographs of tigers, and now we can identify very quickly from any part of the world very fast.

We're using drones -- this is a small drones that fly across parks to help patrolling to understand what's going on in a park.

Again, these are very remote area, so the drones are very effective tools to help the patrolling. Obviously, they're not going to catch any poacher, but they can help identify where the poachers are so we can be responding very rapidly to any situation.

Forensic tools are becoming completely different with DNA and all these different technologies. Realtime camera trap monitoring. These are camera traps placed in the forest where we can monitor and watch tigers as they're walking through the forest and know where they are in realtime. There is many more of these technologies. And we have the last one, just to bring that one up is WildLeak, it's like a whistleblowing where people involved in tiger trade or wildlife trade, particularly government officials or people that shouldn't be doing this sort of thing. Nobody should be doing this sort of thing, but particularly government officials. So people can go to WildLeaks and whistle blow on people involved in this sort of trade.

So again, a vast number of tools that just weren't there maybe even just five years ago when we first started this big initiative. So this is Leonardo Dicaprio. Earlier on someone mistook it for me, which was the best part of my day (Laughing). He's placing one of these camera traps in the forest for us. He's a big supporter of the tigers. And these camera traps probably were the first technology that we used in tiger conservation about the same time we started using radio collars on tiger, so it was the beginning of using technology, but it's completely transformed the way we understand and count and monitor tigers now.

Here are just some fun pictures here. A group of five tigers here. All completely rare. There is one mother and four cubs. And they often, for a strange reason, tigers like to sit in front of the cameras and pose. Even this one. This is at 3,000 meters high in Bhutan, but the tiger certainly seems to know that that camera is there.

And they get very curious about the cameras. And this one got so curious that he brought his friend along to have a look, too. And they get very, very curious. To the point where they're -- you can see that tooth where they attack the cameras. Obviously, very shy tiger, this one. And we also get very cute pictures as well with tiger cubs. This is actually a still from a video. So there is now -- we're using videos rather than just photographs. And the videos are really giving us good examples of some of the behavior that's going on with the tigers. So there is thousands of these picture, and we're using those to monitor the populations. And as we said before, now we can identify the tigers by their stripes. And so this helps us in many different ways.

So the other big problem facing tigers is that all the world's tigers live within this circle. And it's shrinking within that circle. And but at the same time more people live inside this circle than outside of the circle. So the world's human population is concentrated

in exactly the same place as the tigers. Tigers need lots of space and millions of people need lots of space, too. The issue for us is how do we live together with tigers in Asia as the population grows? And here is stark reminders of how the population is growing, and some of the issues that we're facing, particularly like roads where tigers are certainly not going to be able to cross something like that. So we need to find some solutions about how people can live with tiger, and that's really the new area of work that we're working on in tiger conservation. Sorry -- there seems to be --

Okay. And the situation in terms of the loss is pretty -- this is a photograph I was explaining earlier. A photograph of our team going into the forest to collect their camera traps. And they're all ready with their field equipment, and when they get to the forest, this is what they found. This is only a few weeks after they placed the cameras. And obviously, the cameras are not there, and obviously the forest is not there, and we don't know where the tigers have gone. So the situation is pretty stark and this is in Sumatra where coil pump is quite a big destruction of forests. And those are a big problem for places like Singapore where I live. Every year it's full of smoke.

So, what we're doing now is developing a tool, an app. We call it Eye of the Tiger. You are probably the first people to hear about it, in fact. It's very much just in development. It's a tool where we're trying to solve the issue of people living with tigers. So if you can imagine the forest with a tiger living in the forest, and then you have the people living in the city that want to save tigers, and there is very often people in the cities that want to save tigers rather than the people around them that live with tigers.

But the people living around tigers are producers. They're producing rice. They're producing many other different products, which we consume in the cities. And so we want to try and build a relationship between those. We would like to continue those agricultural practices or other practices going around in the areas around the protected areas because tigers are using those areas. And the relationship between the people and the tigers is okay. But once their livelihood gets strained or they change the situation, then the local people -- then that's when they turn against the tigers.

And so we're trying to make a link between the producers and the consumers. And so what we're doing is developed an app which helps the farmers show what they're selling and they're able to sell it on the Internet directly to consumers. And in return, the local communities have got much more trade, their incomes are going up and they recognize and support. But in turn, they're also helping to make sure that the forests and where the tigers are being protected. So they're getting paid a premium, on top, to protect. And as far as the consumers can help support those local producers through this app.

At the same time, we can monitor online what's going on with

the state of the forest and getting information directly from the farmers, too. So this is a really interesting, completely different tool that has never been around at all for tiger conservation. And because of the social media and the tools that we've got available to us across the Internet, will make a big difference in linking people across the world.

Another tool we're using is monitoring forest cover change completely remotely. So one of the issues we're seeing is that forests are getting cut down very fast, but they're always in remote areas. So this tool that was developed in Russia is able to detect very small changes in the forest. So as soon as somebody starts cutting some trees, you can detect it pretty fast. And you can send the police in there to stop it immediately.

So it's really a dramatic change. And now -- actually what's going on now is that people -- volunteers all across the world are using this tool to monitor these forests for us. And as soon as they detect a change, they can inform us and then we can work on it immediately.

So you can imagine how this tool works because this is your expertise, not my expertise. So the technology is also helping us provide visions. So I shared that vision of the roads, and this is probably the biggest issue that we're facing is the roads cutting out the forests. So we can use technology to explain to local communities, to planners, about the implications of the road, but also the solutions. We can use these tools to find the solutions to the roads so that people can still have roads. We can still develop the area, but tigers can survive in those areas by coming up with some smart planning.

And this is just an example now that we're using the Internet to collect data from all the different places that we work and compile that data. So that is a huge amount of data, a big database that we use, but that's now compiled. The data is entered online and then sent up and analyzed remotely on the other side of the U.S. And so we're able to get people working in a remote place in Bhutan to put in the data, and we can very rapidly now understand what's going on.

Before the Internet, it took somebody to write a letter that got taken to the, you know, to the local town to the city. And that letter might get to somebody somewhere else in a month's time, so by that time the situation had completely changed. So this is just a huge -- again, a huge change for us.

And lastly, the really great opportunity for technology is how we reach out to supporters and people using social media. And this is an example of where we had a running tiger along the Kremlin during the summertime. And this was passed to millions and millions of people, live, and we did it. And this Global Tiger Day, we're bringing people together by asking people to show their support for TX2 by giving two thumbs up for tigers.

Again, this is an example of how we're using social media to

really build up support. And the support is then taken to the politicians and the leaders and the people that can make the difference for tigers. Thanks very much.

(Applause).

>> EDMON CHUNG: Thank you, Mike. Always a beautiful sight to see a tiger. I guess, going back to the conversation, of course we want to protect the tigers. But I guess there are other challenges for us in terms of the Internet service providers and others as well. So I'll pass now I guess to Kenny to talk a little bit about what is happening in terms of takedowns and those type of issues here in Taipei.

>> KENNY HUANG: Okay. Good morning everyone. My name is Kenny Huang. Executive Council Member of APNIC. I feel a little bit embarrassed because I have very limited knowledge on wildlife protection. The thing is I probably benchmark the lower button for this knowledge. After this session you probably have better understanding than me. So hopefully you are enjoying the session. I'm going to introduce the side, the practice in takedown practice in Taiwan. Next slide.

Okay. Initially I tried to introduce there are several kinds of Internet theater and technology, especially -- especially that can be applied in many other places. But this I tried to point out actually you not only care about what sort of technology develop, you also need to notice what will be the operational cost. From left-hand side you can see IP filtering, the cost is much lower but the accuracy is much poorer. And then go to DNS filtering and layer. And then right-hand side is statistical traffic analysis and that would be pretty accurate and pretty high.

Okay. Here I will briefly introduce what I discussed. For example, like IP filtering, the cost is low and the operator involved, including ISP and telecommunication operator, the accuracy is also very low. Now what will be the impact to apply that kind of technology? The impact would be the you know IP address may host multiple websites. So if the government blocked in one IP address could cause impact to the other website that shared the same IP address. So that would be the side effect if you just blocking one IP address.

And activation requirement, the pricing in Taiwan, require court order. So here you have court order otherwise ISP cannot do any kind of activation. So also we have some kind of commercial service like in Pro-Child Protection so the parent can purchase that kind of commercial service. I can introduce later.

The second one will be DNS filtering and the cost of that is also pretty low. The operator involved would be like a ccTLD/gTLD registry. The accuracy is also very low, one probably have multiple user, so a block in one could impact other user who share the same digital platform.

So activation requirement exercise in Taiwan also require a

court order. So once the court order reach to the operator site, the operator will initiate and activate the takedown policies.

So the other technology such as content filtering, the cost is still low. And the operator, including digital platform operator, most likely is private sector. The accuracy is very high. The impact is very low. The activation requirement including court order or some self-regulation such as an example I'm going to mention on the next page. Sorry. Next one. Yeah. Sorry.

I tried to introduce the commercial service available for harmful content filtering. Last one, older ISP provide very similar commercial service in Taiwan. This example was a service provider HiNet the largest carrier in Taiwan. And if you pay the service, there were equipment and that kind of technology in your household. So if your children try to access some harmful content, that would be blocked by that kind of software or technology.

And the other practice in Taiwan we have noticed in takedown for example, I introduce it yesterday, we have an organisation called iWNN and receiving including harmful content they will initiate a due process, and once a decision is made, they submit an inquiry to government authority and also to service provider, either ISP or ICP. So if the government considers to be illegal content, they issue a notice and takedown requirement to ISP or even issue a court order to the ISP. And ISP also has an internal takedown policy. Once they receive the inquiry from iWNN or government already, they will make a judgment on how to take care of the takedown process and notice.

So regarding to regulation, because we are discussing wildlife protection, actually we have all kinds of regulation. One example is Animal Protection Act, specifically in article 27-1, we mention a jail condition would be made or fine NT \$30,000 imposed. They will impose an action of disseminate, broadcast or sell or text picture audio or video recording electronic regard that violates this article. So we do have this kind of regulation. And but the problem here is it's very easy to understand how you're dealing with illegal content. So very straightforward. We have control major. Once the content was classified as illegal, and the government definitely would require action.

But the point is if the content or harmful material was classified as in a gray area, and the gray area need a technology or mechanism to deal with it, otherwise we don't know how to process whether it's illegal or legal. So we need to pay more attention on the gray area, how we're dealing with that kind of process. So theoretical review on free speech and low value speech. Because in a gray area, a lot of people say that's a free speech, you cannot prohibit doing any kind of free speech. So we have free speech theory and also we have very low level speech, such as U.S. have Communication Decency Act. And also EC conclude harmful material, such as offend the values and feelings to other people, some consider harmful material already

defined by EC.

And next from technology point of view, how are we going to design a feasible mechanism especially for the gray area, such as technology basic. We need to have some -- sorry. We need to have some technology such as bad site blocking technology. And in Taiwan, we also have some exercise called PICS, platform for Internet content and selection. You need to categorize your content type in your website, but it's not enforced by law. It's by several regulations. And also we need to have a content filtering technology, keyword matching from back-end system. We still need a lot of coordination among different stakeholder, but as long as it does not belong to illegal area. It belongs to gray area, so that requires a lot of stakeholder coordination, such as the coordination of ISP, coordination among government agency, among school, such as state, and also we do need to encourage self-regulation because in a gray area that require highly -- not highly, but a rough consensus from the stakeholder, such as service providers.

So until we have some conversations such as conversation to start with from the service provider, they can have a better understanding on the issue so they will encourage then to have some sort of self-regulation. Once there is a self-regulation mechanism, they may -- I've seen that kind of process can be even faster or even cheaper than the official legal process. Thank you.

>> EDMON CHUNG: Thank you, Kenny. And that gives us a good view of, I guess, a typical ISP, you know, those kind of things that they're kind of tackling. Can you jump to -- oh, I have the control now so I can jump quickly to where I wanted to. Unfortunately, the font is a little bit strange. But anyway, going back to the three questions, what are the current mechanisms, the immediate liability issues, and is it possible, as I think Kenny left off, having some sort of a code of practice among with the industry?

I'll turn to Chester, who is, I guess, an expert on privacy and security maybe to add on this and then maybe Jan, and then open the floor.

>> CHESTER SOONG: Well, thank you. I'm officially not an expert in wildlife and conservation of wildlife. But so I support this, I guess fully with everything I can, you know, think of. But I'm actually quite happy to know from Joyce and Michael about the efforts and technologies that have been using to protect tigers and other wildlife. And I think -- and of course, obviously, it is not, I guess, enough. And new problems come up -- and also soldiers problems still persist.

I guess, I'm not going to talk about what has already been covered by Joyce and Michael, but I think in terms of the situation and all that, I think -- well, definitely, you know, we -- to me -- I used to be a ISP as well. So I was involved with a lot of, I guess content -- illegal content issues or illegal, I guess, activities on the Internet, child pornography, trafficking, and a lot of

other -- you know, even piracy, copyright products, and stuff like that.

So I think Kenny highlighted one problem that I was thinking also. Was that how are we going to identify the illegal contents? You know, I think -- because if we want this -- if we want the mechanism to be scalable, you know, we -- I mean scalable meaning not only in one condition in the region or even globally. The scalability means that we have to have a mechanism to help the NGOs or even the platform providers to determine whether the content is illegal.

And I can see the difficulties of identifying, for example, a picture of a tiger or a wild animal being -- I mean, just circulating from the Internet, whether it is a cute picture of the animal or whether the animal is being tortured or captured or even slaughtered. You know, we need to build up into the mechanism.

One of the experiences, I have been helping with a company that we are doing. Actually, it's a spinoff from Hong Kong on cyber -- forensics. And what we did -- or what they did was designed a system to help bring names to identified products online. Basically, it's like an Internet crawler, except that when it sees a picture, it looks into the picture and compares the image of the picture and tries to identify marks, icons, and logos in the picture and determine whether that product is a counterfeit product or possibly a fake.

So but then that's raised another -- you were quite successful actually, but that raised another issue that we apply here, is whether the organisations, you know, helping to preserve this have the resources to design and deploy this type of technology. And I would, I guess, think that that can be supported by, say the bigger, richer platform providers, the social media companies. And if they can contribute on the technologies or even on the research, that would definitely be helpful.

The other thing I want to say a little bit, is I guess to do all of this, we somehow need a central authority to help us or to help the, you know, the intermediates first to determine whether there was some content or -- the picture, for example, is illegal. The content of the text or whatever. Because like I said, it could be confusing to be in the gray area that Kenny was mentioning. And the authority also gives a more direct order. Now, if I draw my experience from child pornography, obscene material, you know, or even criminal contents from the Internet, you know, ISPs often have difficulties -- or don't have the authority to determine whether something is illegal. So what ends up happening is they would do it based on the order, or suggestion by say a certain organisation or maybe someone who claims to be the IP right holder. But then does it give the intermediary the safe harbor that it may need to, you know, in case they make the wrong decision.

So and then the other thing is about self-regulation. It works only, I guess, if the industry itself is tight. And in a way, I guess,



controlled. Because otherwise, you know, we can have some big players coming out, and say we pledge to do that or to a certain thing, and then it won't be effective because they're like a thousand or more smaller other players who would still provide the platform to circulate those content. So I'm going to stop here for the moment.

>> EDMON CHUNG: Thank you. I think you covered a pretty broad spectrum from technology supporting, which is very interesting, I guess, an image of processing technologies. I think Joyce alluded to some of the things that TRAFFIC is doing as well, and perhaps there is more work that can be done.

I'll turn to our young participants, Jan, to add a little bit. And please think about -- please chime in and I'll open the floor right after Jan.

>> Hello. Okay. So I'm Jan from NetMission and also the organizer of Youth IGF, so I want to share something on behalf of the youth perspective, because prior to this workshop we actually had Global Tiger Day activities where we discussed two main topics. The first one is how can different stakeholders apply Internet policy to protect wildlife animals? And what teenagers can do in general.

So for the different stakeholder, the participants mainly suggested making a website or a hotline for people to report dangerous trading and products online. And they also want social media platforms to warn people before they post videos and photos about tigers. And one way is also not to allow them to tag the location so that they can still like share, but the people -- I mean, the public won't know where the tigers are.

And for NGO, they suggested to make use of the Endangered Species Act, and governments from other countries can also make use of this if they don't -- if they haven't already.

And for the what teenagers can do, there is four main points that were raised. The first one is the participants wanted to create a petition to close down zoos and promote safaris instead. So instead of like keeping wildlife in cages, then it will be better for animals to be in their natural environment where people can still watch them but they're at least in their natural habitat.

And the second one is to create a trend where it can help raise awareness which can be in a form of a game or a video, and it would create the hype to protect the environment.

And then the third one is an example in West Africa where there is something like a mixed part between countries where they joined the wildlife together and allowed animals to move in different countries. So the participant said that one of the reasons why the animals are endangered is because they feel trapped in a zone, so if they allow tigers to move into other countries, then they would feel freer and have a broader wildlife.

And the last one is suggesting to have like a parent for tigers. So it's like using an app or a software where people can monitor one

tiger, in particular. Like for example, you can be in Europe and then your tiger is somewhere in Asia, but you will still know what they are doing and things like that. And they think that this will allow more people to be responsible. Yeah. Thank you.

>> EDMON CHUNG: Thank you, Jan. Very interesting suggestions, and glad to know that there are some outcomes coming out from the discussion this morning. So I want to see if anyone wants to comment or have a question? Please.

>> Okay. My name is Hahabi from Nepal, and I build a wireless network in the rural areas there. So that I am trying actually -- I tried with the national conservation of Nepal because I'm a board member there also. We tried to find ways to -- taking this camera trap for animals. We tried to develop a system to trap the poachers instead of the animals. So but, you know, to trap the poachers -- trap the poacher, we need to build a camera. We need to build a system, you know, that the poachers cannot see or cannot notice. Because, you know, for animal, the camera -- the animals, they don't know the camera, but the poachers find that there is a camera there to trap them, then that's not going to work.

And that's why my request to all of you who are interested in this project is, you know, let me know, you know, if there is -- if you are interested to work with this projects to find ways to trap the poachers instead of the animals. And the reason is because -- it's not that easy, especially when we talk about the national parks. The main problem is, you know, the connectivity. The 3G networks for the wireless and in the dense forest. What we're trying to do is, you know, trap somebody and anybody -- even it can be animal, that goes into the forest and move around and trap that and send that, the picture realtime to the control room of the national park. That's the challenge. And I still believe that there should be some ways to do it, but if you're interested to work with us in Nepal, just please let me know. Okay. Thank you very much.

>> EDMON CHUNG: Thank you. As you saw in my presentation, our little tiger is inspired by the WiFi mesh networks that you have put in place in Nepal. And I think that's a very interesting -- definitely a very good idea. And as part of the work that we are exploring with WWF, actually on one side is to provide communications for the rangers in the tiger landscapes, which is using similar technologies that you are using in the mountains. That picture was you, so you recognize.

And also but to potentially pick up the poachers as well. One of the interesting technologies we're trying to explore is if we do a WiFi in the forest, when poachers go in and their phone starts trying to pick up the WiFi access point, we know that an extra phone suddenly entered into the forest. So one of the ways of doing it is -- instead of capturing the camera, to identify that some device entered the forest. But certainly, brings a very interesting question. The tigers are very curious of the camera trap, but obviously the poachers

would smartly avoid them. That's certainly a very interesting -- and I'm sure DotAsia, we're certainly interested to explore further and I'm guessing WWF would also be interested. Did you want to add?

>> MIKE BALTZER: Yeah. It was very interesting input. Nepal is actually the place where all the innovations happen. And the place where we're working to do -- where the rangers are using SMART and it's connecting live. It's actually happening in Nepal. So is there any place in the world where the SMART being sent straight to the control and can be watched live. It was actually technology that the Nepalese developed themselves, which is great. And the system you mentioned about the phones is being used in South Africa, I think. I haven't seen it yet in Asia, but that's partly because of the WiFi networks.

In fact, the use of Google -- what are they called? Google Glasses -- Google eyes -- that was also innovated in Nepal. There is a long list of technology innovated in Nepal, so it's great to see you here.

>> Hi. I'm from India. I would like to quickly share two innovations or initiatives we are doing in India. One is to do with wildelephant tracking. There is a lot of man -- human/animal conflict happening. Basically humans have gone to build houses where areas animals used to own. Animals trampling over fields. This is a big deal because people do not use smartphones. It's kind of a geotagging but not using GPS. It's coordinates to SMS to a central point, a system to coordinate to predict where the elephants are going to be traveling tomorrow. This is to warn the villages in the path. It's working for the last 1.5 years now. It's working pretty well. Now we're trying to scale it. This is in the hills.

The second is a group that I've been working for the last 25 years with, and this is a group of deep sea fishermen targeting exclusively shark. Sharks is a huge problem. It's not mentioned anywhere here, but it's a huge problem. It is several species on this site of the list. These fishermen, the main problem is they go all over the ocean, and they have -- they claim the inability to differentiate between the red list and the species they're fishing. They end up with the shark. The fin is the most valuable thing. The fin is about a hundred times more expensive than the meat. What the fishermen do is catch the shark at sea, fin it, and dump the shark back. It's cruel and barbaric. A lot of work is used for species identification. On-board species identification. -- some kind of technologies are required and they're asking for it. They're not able to fully deliver on a mobile phone because these things are outside the Internet range, and satellite Internet is too expensive to be kind of tried out. So the first one is a solution that is already working. The second one is not a solution but a problem that we're trying to solve. Thank you.

>> EDMON CHUNG: Thank you. Those are, again, very interesting

innovations and technology that is helping the wildlife. And I think the theme of the workshop is certainly, you know, the interrelationship of technology and especially Internet technology and how it impacts wildlife. But I'm looking at the time, we're kind of running out of time. I want to pull back to one of the questions and perhaps Joyce, as the expert, could enlighten us a little bit of the current situation.

What are the conservation agencies -- how do you currently try to track the illegal activities? You mentioned a little bit, but once you do, are you seeing any challenges asking ISPs or hosting providers to take them down? Or are you finding difficulties in actually identifying people who are engaged in those activities? What are the challenges, and what perhaps can this community do to work together to help?

>> JOYCE WU: Okay. Compared to the Internet and IP expert just mentioned earlier, actually what we use to monitor the website -- the Internet is actually very low technology. In 2005 we monitored the website by ourselves. Several staff manually, personally monitored the browsers and theme websites and find out all of those kind of suspicious commercials.

But now days we work in China. We work with the university. They're helping us to use the keywords to track down all those suspicious contents. And still -- after they catch all those suspicious advertisement, we still have to screen all of those manually, personally, to see. Because like the keyword we use, we like to search for the ivory trade, and we use the keyword ivory. But sometimes they were -- like ivory color dress will come out -- so we have to take down all of those information before we send it to authorities. So before -- or after doing all of those pick up the suspicious advertisement for us, we have to do it manually, too.

The other challenge is that for even though for some advertisement, they say ivory. What kind of ivory? There is mammoth ivory, that is extinct so it's not illegal to sell it. The other is African and Asian ivory. If they are selling African ivory or Asian ivory, that is a violation.

And also there are some kind of fraud. Like people they do or they say -- they put out the advertisement. They say they do have ivory items to sell, but actually they have nothing to sell, nothing to offer. It's just a scam. They just try to get people's money. But nothing -- they have no product to deliver.

So this is another different kind of illegal activity, but it's not regularly the illegal wildlife trade issues. So this is all this kind of challenging we have. And gentlemen had actually mentioned about the accuracy, the low or high of the accuracy. I think, yes, if there is assistance can help us to bring increased accuracy of the screening, that would be much better and it would be much effective for us to monitor the illegal trade.

And the other issue is that now we have a good connection or

good relationship with authority. We monitor the websites since 2005, so it's 10 years ago. And after several years of communication with authority, they understand how serious of the problem there. I think at the beginning they were thinking oh, those are just advertisement. There are no actual transaction happening there. So for some legislation in some countries, they don't really recognize they put out the advertisement as a crime or illegal activities. They like to see -- or the court like to see if there is actual transaction happen. Then they will recognize that it is a crime and is illegal activities.

>> EDMON CHUNG: Thank you, Joyce. And that really brings us to the end. Although, can you make it very short? Maybe 20 seconds? All right. So we can that I can offline. That really brings us to the end. And I wanted to note that this is really just the beginning of the dialogue. I want to stress that. It's attested by Kenny and Chester that this community really knows very little about the situation, and I think is somewhat surprising how much of impact it is actually having.

Chester, the idea of utilizing the individual property, photo scanner, I think that has a lot of legs to help in some of the effort, and I encourage you guys to connect afterwards. But again, thank you everyone for joining. This is the beginning, and we hope to have more sessions and go into more details as we go along this journey. And please join me in a round of applause to the panelists. Thank you.

(Applause).

(session completed at 11:33 p.m. CST)

\*\*\*

This text is being provided in a realtime format. Communication Access Realtime Translation (CART) or captioning are provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings.

\*\*\*