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NETWORK NEUTRALITY IN THE ASIA - CURRENT ISSUES

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>> MODERATOR: Good morning. My name is Izumi Aizu. I work for the Institute for HyperNetwork Society and those are concerned with socioeconomics of – I have been around with APrIGF from the beginning as one of the MSGs. Today, we are very fortunate to have four distinguished speakers under the umbrella theme of the Network Neutrality. Please don't ask the definition! It changes by the person or country or context. But we have some basic vague understanding that most people agree that we should retain end-to-end principles which means what, the machine connect to the Internet or the people behind the machine have no regular -- well, filtering or distortion or whatever by the network.

So that a packet or packets sent from me will reach Milton without interference.

That is the kind of principles but as is the case for any other jurisdictions, the principles always have exceptions and not quite the reality as composed.

Well, anyway, to make a long story short I'd like to ask two speakers to come up with their more or less national reports, what's going on around the net neutrality in Korea to begin with. We have Mr. Byoungil Oh of Jinobet Progressive Network as our first speaker and then it will be followed by Toshiya Jitsuzumi for he is an economist at the University of Japan, he used to be a bureaucrat at the Ministry of Communications but that's a hidden story. He's done several seminal research works around the Network Neutrality and especially whether the competition among ISPs to exist or not in Japan; however, he'll take a slightly different angle today about Network Neutrality as I understand.

Then we will hear from Milton Mueller. He is a known economist on Internet government for many, many years. He actually was in Hong Kong in the 1990s I believe. Some of the early days of the Internet development in China. He made a book which is very interesting.

He will be talking about the deep packet inspection in specific ways and then we will have Jeremy Malcolm from the Consumer International, he is also long-time member of the Civil Society of Internet Governance with Milton and myself. He's my predecessor but being global coordinator but today he will provide why Network Neutrality is so important for the consumer's rights.

Then so given that, we will have after four speakers make 10 to 15 minutes talk of 10 to 12, but for that I need some time-keeping management. Then we'll have 30 minutes of discussion. That is or 40 minutes. That's the plan.

Any question or suggestion? Let's go.

>> BYOUNGIL OH: Good morning, I'm Byoungil Oh. Working for Korean Progressive Network in Jinobet. This is maybe a first-time to discuss Network Neutrality in APrIGF so I'm very happy to be here. Okay.

I would like to start with a story. Last night -- launched mobile Voice over IP service, voice talk. Koko Talk is the most popular free messaging application in South Korea, it has 46 million subscribers all over the world. However, Korean users have subscribed lower price service plan can't use this application properly because mobile service providers recirculates traffic.

As you can see in the slides, in the network of KT and SKT the loss rate of the end rate service traffic is so high that users of both companies can't use it.

Of course other applications such as Skype have been filtered before then, though filtering of voice talk brought about byte on Network Neutrality in South Korea. The third thing by mobile incumbent depended on their terms and conditions of use which has been approved by Korea Communications Commission. It means Korean Telecomunication Authority allowed those mobile incumbents to restrict VoIP services, actually classified its policy position on mVoip that it would not intervene in the market. Telecom argued that mVoip service which is the substitute of their existing voice communication service would decrease their profit. And so finally, reduced their capacity for further investment to network. Moreover they argued that they charged this kind of application service is a free riding activity on their network.

And argued apply indication provider should share and as a further expenditure. Most of mainstream media viewed mvoip for issues as just a conflict between mobile incumbent and application providers interest or consumers' right to use voice communication service cheaper than mobile incumbents argued that Korean users can use mVoIP in cheaper price than those in other countries. Although in some service plan it is restricted.

However, the mVoIP by telecoms is not a matter, is a matter for the future of the Internet. A matter of --

>> Very nice picture. Where did you get from?

(Laughter)

>> BYOUNGIL OH: There is a service. A matter of who controls the Internet because to give telecoms the right to block and VoIP is to give them the right to block other content and services as well, this is to fundamentally change the nature of the Internet.

As we know the picture of the Internet had been designed on end-to-end principle, intelligence of the network shall be found on each edges, not within the network itself. This has been regarded as a driving force which bring about the innovation and development of the Internet, open and neutral Internet have created the competitive environment for innovation and fostered freedom of expression.

If we compare this before and after the iPhone had been imported in South Korea, we can know clearly how control of the network by telecom affected to the innovation and development of the Internet. In South Korea, the iPhone was introduced first on November of 2009, before the introduction of iPhone Korean users had to pass through the telecom's portal to use Internet service by mobile phone. Telecoms had preempted the function of the mobile devices so most mobile devices had not include WiFi and GPS functions.

Content application providers had to compete to take better, more visible status in menu, selection of telecom spotter. Which made them to be subordinate to telecoms. Moreover because of the high cost of data communications, users hardly used 3G Internet service. After the introduction of iPhone the situation has changed drastically. Users became to use Internet services more conveniently over WiFi or 3G data service, and not passing through the telecom spotter. So could enjoy a variety of applications. Application providers could develop their own application without telecom's intervention so a variety of applications flourishes.

We can see how much data traffic had exploded just after the introduction of iPhone. Network providers should treat all data equally in each network, not this screen-making users type of content and type of attached device. Users should have the right to access universally and reciprocally to any application and service of their choice using suitable devices of their choice. So you can now see net neutrality from the viewpoint of human right and fundamental freedom, the practice adverse to Network Neutrality discriminated traffic management will hinder users' fundamental right and freedom of expression. DPI technology which could be used for traffic management can violate users' privacy, users' communication secret.

Economy aspect, blocking and disconnection by tell comes are a threat to fair competition and innovation of application and service. As I mentioned before, telecom said and VoIP can substitute their existing voice communication service which means they also admitted they wanted to kill their competitors using their superior power as owners of physical network.

Now, at the press conference last year, KT, CEO -- told that there is no free lunch. Telecoms had criticized that content and application providers got a free ride on their network. By the same reason, KT had blocked Samsung Smart TV service for five days in February last year. It blocked only Samsung's, not others' TV service. However, free-riding argument is not truth.

Content application providers as well as users already have paid the access charge to the telecoms. If content and application providers who are not -- of certain telecom have to pay separate fees by reason of their traffic just passing through its network, then content and application providers should have to pay to the telecoms of the world.

>> MODERATOR: About three minutes.

>> BYOUNGIL OH: So what to do for preserving Network Neutrality? Some countries like Chile and Netherlands have Network Neutrality provisions. United States have approved opening of -- on December, 2010, some countries established Network Neutrality guidelines, where legal regulation or government intervention is needed could depend on their -- taking into account global nature of Internet.

You may think some kind of global discussion on this subject that neutrality as a global guiding principles. Telecommunication market is dominated by the oligopoly of three big telecom incumbents, KT, K -- especially mobile market, their market power, total market share is almost 98% in terms of subscribers.

Korea Communications Commission, which is a Telecomunication Authority has a strong power over the existing telecommunication services, even Internet connectivity service is defined as common carrier. Service has been provided by backbone line providers. Which naturally should obtain service license from KCC and be regulated by Telecommunications Business Act. The act granted no manpower to regulate telecom, undermining unfair competition and users' interest; therefore, although there is no clear statement of Network Neutrality, Telecommunication Business Act has some similar provisions so KCC can regulate the practice, VoIP service, if it has -- but it didn't.

On December of 2011, KC published Net Neutrality guideline, stipulated users' right to access any lawful content application and services of their choice using suitable devices which is not how Internet work and to get informed of traffic management information.

It also stated transparency of traffic management, no blocking and no unreasonable discrimination. However, it had not been applied to current issues and VoIP -- guideline is a little more than a name. In 2012, KCC policy committee and let it develops traffic management guideline. But the committee had been operated very undemocratically. No -- were allowed in the meeting. No materials of the meeting was not open to public. The draft of traffic management guideline had many poisonous -- which override Network Neutrality guideline. For example, it allows discrimination of certain traffic such as heavy users' traffic. So finally the Traffic Management Guideline had been dismissed by KCC at the end of last year, due to the position of -- and some politicians, but it reignited by MSIP Telecomunication Authority.

Telecoms and content application providers have strong voice and channels to announce their positions directly; however, end users could hardly be taken into account if Net Neutrality issue is to be social discourse in a -- way, there must be some discussion platform for end users to be able to participate in it.

We have formed Network Neutrality User Forum in May of last year which had been composed of 11 organizations and users and some experts. Through many public lectures, discussion forums, or other issues, center, campaigns, we had actively made an impact on public opinion on this issue and in January of this year we published one book speaking of Net Neutrality which is an -- discussion and activity.

I hope that the neutrality user forum can cooperate with users in other countries, especially regions to preserve the free and open Internet. Thank you.

>> MODERATOR: Thank you very much, Mr. Oh.

(Applause)

Unfortunately we don't have much time for the questions, please save it later.

Using my moderator's privilege, one question. Do you think there is any competition among ISPs in Korea? By the way, how many ISPs are there on top of the telco?

>> BYOUNGIL OH: As I mentioned in mobile market, three dominant ISPs dominated the market and except them, only several numbers of --

>> MODERATOR: Like fixed line, DSL?

>> BYOUNGIL OH: Comparatively competitive market. Of course on fixed line three dominant -- dominate the market but there are other ISPs. Yeah.

>> MODERATOR: Okay. Is there any regulatory framework to prevent some dominant telcos from making some -- taking advantage to the ISP market or not?

>> BYOUNGIL OH: What?

>> MODERATOR: Any regulatory measures that prevents telcos from using their dominant power into the ISP market? Are there any separation between ISP and telco market?

>> BYOUNGIL OH: It's not separated.

>> MODERATOR: Okay. Thank you.

We'd like to invite Toshiya. Switch the screen. I'll give you some warning around 12 minutes.

>> TOSHIYA JITSUZIMI: Good morning, ladies and gentlemen. My name is Toshiya Jitsuzumi coming from Seoul just one hour flight from here.

Compared to the situation of Korea we just heard, the situation in Japan is very different. Net Neutrality is not on the agenda of the Japanese government right now. The Ministry of Communication already published the report on the Network Neutrality in 277. They showed two principles, one is their fairness of usage of the network and the other is the fairness in the cost allocation of the network investment?

And ISPs granted guidelines to safely regulate how to rationally -- pocket with other conditions. That's it. During the discussion in the ministry in the 2007, one participant said that the name of the participant is the company named -- which is a IPTV provider at the time. They claim that the one incumbent ISPs are throttling their packet to make their service less appealing to the consumers. But they failed to provide the concrete parameters which is justified their claims so since then there's no big claim from the VoIP providers or IPTV providers.

So if I am allowed to make the long story short, this is the conclusions: There is no programme in the Japanese ISP market concerning Network Neutrality. No big story on their mass media or the newspapers or in the intention of the general public; however, I listen to that, it is true that there is some restrictions by usage of the Internet. And OCN is the name, brand name of the communications, restrictions, known restrictions on the downloading of packets and small restrictions on the uploading of pocket. Their amount of the pocket uploading exceed 30 gigabit. I think probably over the 30 gigabits. Their pocket will be throttled. That's a possibility. The end-to-end documents say if the transmission, exceeds some more than 37 gigabit the speed will be reduced to 128 per second, even if the subscribers make a contact of using the network.

And the big drop, I think is one of the largest independent ISP provider that independent ISP means the ISP without having huge investment on them assessment. In the big group this is -- transmission if the users or using for exchange protocol such as shares. Also that they say the -- will throttle transmission if the mobile users exceeds some limit of usage.

Already these restrictions are based on usage, not content, except for that PCP transmission. I think the other nations, there is no limitation on regulation or track based on contents so the policeman, not programme, the situation in the Japan, little different from the rest of the nations.

However, even if there is no big story on the -- some signs of image problem concerning Network Neutrality. Japanese are -- in Japan the usage of network is increasing dramatically as it was observed in the other nations, based on the -- traffic over the Japanese inside the backbones. Download traffic is increasing steadily. The traffic is in the -- something, and this shows data usage of the traffic over the Internet backbones, and that this graph compares situation from the 2007 to 2012 and this shows the peak is becoming more and more operant as time goes. So it also shows peak time corresponds to human behavior. When the people are awake and in front of the PCs, their traffic is going up. It means that the major cause of this condition is not from the PCP traffic but to the -- and because of these huge usage of the network has some pressures on the Internet backbones, the condition on the Japanese Internet backbone infrastructures.

Some code from the MRC report published in 2007 and at that time the download and uploading packet occupy more than 70 or 80% of the available capacity of the network itself.

So in the right-hand photograph are some -- top of them is from my research and the rest is homepages of the U.S. government or other homepages and it's safe. If we compared the actual download speed to the maximum download speed which the operator, publicize as the customer enjoy. In the Japanese case, in most cases the average speed is less than half of what ISP operator or net operator publicized. And even in the U.S. and other countries, the situation is not so different although the Japanese is much worse.

>> MODERATOR: There is significant increase in Japan in 2013 over the last year, 10%, is it getting better?

>> TOSHIYA JITSUZIMI: I'm not sure because of variance of the data is so huge so this average figure is just some -- indicates something but I'm not quite sure the situation is improved or not.

>> MODERATOR: Second question. It's compared with the published speed, right? Not the absolute terms. Meaning that the Japanese have higher speed on average than the US or UK or it's almost the same? Because they are only relative.

>> TOSHIYA JITSUZIMI: Yes. Of course.

>> MODERATOR: How about absolute figures?

>> TOSHIYA JITSUZIMI: I don't have the data right now but if the Japanese subscribers subscribe to the MTTs 100 megabit fibers.

>> MODERATOR: Which I do.

>> TOSHIYA JITSUZIMI: They can expect about 40 or 45 megabit per second average.

>> MODERATOR: Thank you.

>> TOSHIYA JITSUZIMI: The situation is that the customers cannot get what they are paying for. So why there is such a degrading of quality? Everybody know that the situation come from the conditions. Condition meaning the less investment and usage of the existing capacities. If we can frame the whole programme from this kind of viewpoint, the solution is very clear to economists because economists have already tackled this problem for more than 100 years.

So this figure shows how we can see this problem. It can be into two aspects. One is how to control the condition problems and the other aspect is how to control the competitive behavior of the bottleneck network operators. If I had time I could explain the detail of this diagram but I think that it is -- will scold me after this if I start doing that. So okay. The answer or the every discussion concerning this diagram can be sold if there is a sufficient amount of competitive -- in the market. Because -- IFC market or the net market due to the orchestration or huge switching costs of when people trying to switch ISP to another ISP.

In order to solve this problem with a minimum government intervention I suggest to introduce these two. One is independent -- and the other is ISP summary -- I think that the reason why this kind of degrading speed of the ISP is not well observed by the Japanese general public and why this kind of thing is not on the headline of the newspaper is because everybody does not understand the situation itself.

So even -- the customer education is key to solve this question. And in order to -- we have success to educate the customer in our region, customer actually participate in the market. So in order to make the customer education possible to make -- critical. One is to provide information about what is the situation of the quality of the -- and currently there is some data available on the Internet or some content provider, I understand.

I think the government or some party should be involved in providing the information about the actual quality, how the actual condition occurs and what is actually taking place in the market.

In answer to that, make those information easy and understandable to the general public, users don't have sufficient technical background, we need interpreters or educators to make those -- take into -- make it understandable to the general public so I call those -- people try to understand the meaning or the quality of the lines.

So if that education becomes successful and the customer is involved in the competition and help solve network problem I think we can change the framework of the stakeholder of the Internet Governance, contrary to the stakeholder, one is Civil Society, either government and the businesses, and if we can incorporate the general consumer in this framework, we can have the full operators and we can make the current Civil Society such as he needs to take off his faces as representative of the general public. He's not the representative of the general public. He's more like a -- Internet geeks. And Internet week

(Whistling)

I think that's it. They can play a role as the true technical -- they can innovate in making innovation or they can work as watchdog to make a warning if there is significant deteriorating they can say that, people, the situation is very bad, you should speak up and change of the ISP for better.

And if the third -- this situation become possible I think that the stakeholder reason and the Internet Governance are heresy. And the problem of Network Neutrality will be solved with minimum government intervention.

Thank you for your attention. If you like to know a little bit more about my diagram -- thank you so much.

>> MODERATOR: Thank you.

(Applause)

You can go to slide share and look for his name. There are some papers about Network Neutrality paper presented to the TPRC last year. One question to you: Is there any competition among ISPs in Japan in your view?

>> TOSHIYA JITSUZIMI: It looks like huge amount of ISP, I think 200 or 300 independent ISPs. However, the switching costs to change the ISPs is so significant in -- customer in general cannot afford to change the ISP once they have some contract so in reality there is no competition.

>> MODERATOR: You made analysis based on evidence in the Japanese ISP market and that there is nominal competition but not in a substantive way.

>> TOSHIYA JITSUZIMI: Yes.

>> MODERATOR: Thank you very much. Consumers and geeks will be discussed later after we hear from Consumers International representative. Before that, we have a wonderful speaker.

Milton, the floor is yours.

>> MILTON MUELLER: I'm channeling Anja.

I'll be addressing Network Neutrality from a broader perspective, looking at the whole way in which new network technology has put more control into the network rather than at the edges and in particular I'll talk about a technology called Deep Packet Inspection.

We have been lucky enough to receive a three-year grant which just concluded from the U.S. National Science Foundation to look into this question of impact of Deep Packet Inspection and our website is at that and so you can get a full range of the research we do at this website deeppacket.info. What do we mean by this? You probably know enough to know that the packet is always being scanned or read by the routers in order to understand where to send the packet and other kinds of protocol parameters. If it's an IP, you are certainly going to be reading sender IP address, receiver, time to live, those kind of things. And if it's a TCP packet you'll be reading port numbers and so on. But what Deep Packet Inspection does is it goes further into the packet and reads the data.

It recognizes patterns in the data or it could actually pull out identifying information. Really depends on what you tell it to do. Doesn't inherently do anything. You have to tell it what to do. So like all technology, you can't write it off as a bad thing. There are many different applications of DPI. The most popular is bandwidth management and we have looked at the U.S.A., Canada, Netherlands And China. Another is called behavioral advertising, use DPI to basically scan what websites you're going to sort of classify them and then figure out what kind of advertisement to send you. So that if you go shopping for a dress for your wife or girlfriend, you might find yourself being chased around by advertisement for dresses, they might think you're actually buying the dresses for yourself. For that matter, you may be.

Governmental surveillance, you know, NSA is in the news, a lot of what they are doing is sifting through packets using DPI and indeed the original one of the original uses was the famous warrantless wiretap programme. You can use it for censorship and content regulation, recognize the URL, you would tell the DPI engine to block certain kinds of URLs.

One of the most controversial applications was for copyright protection though some really sophisticated forms can recognize a signature of a specific performance so if it's Aretha Franklin singing "Freedom" in 1968, you can actually create a signature that would allow you to recognize that given a certain amount of that performance.

Of course there is the security applications in particular intrusion detection and prevention in which you would recognize a signature of a virus or malware or other kind of anomalous activities and prevent filtration of information. Some of these sound pretty good, some sound scary.

Again, because this is a net neutrality panel we'll focus on the bandwidth management application of DPI. Now, we are interested in the bigger question of is DPI really a disruptive technology. By that we mean is it really altering the way we govern the Internet? There are some tensions with three fundamental principles of classical Internet Governance. DPI seems to contradict the end-to-end argument in the sense it inserts intelligence in the middle of the traffic stream and it's not necessarily at the edges. Although you could argue with that. We don't have time to go into that argument here.

Another thing is it somehow challenges the classical Internet Governance principle of Internet intermediary immunity. You used to say you can't ask Google to recognize all of the copyright infringing material put up on YouTube. How could they possibly do that? Well, with DPI and similar technologies that don't actually qualify as DPI actually maybe Google can recognize a lot of copyright infringing materials as they are uploaded to YouTube. Does that mean you regulators should make Google responsible for endorsing copyright or we still want to maintain this principle of immunity or neutrality?

Of course it's pretty obvious the way DPI can violate expectation of privacy. We've been shocked into the recognition, I don't think I have to explain this anymore that virtually everything you do can indeed we have the sheer processing power to not only recognize it but to store it or to store it all and look through it later.

Basic research question: Is this disruptive potential being realized? In other words is deployment of the technology transforming Internet Governance or is the general environment of norms and principles applied to the Internet taming the technology and channeling it into areas where it doesn't actually violate those original principles.

How am I doing for time?

>> MODERATOR: You have six more minutes.

>> MILTON MUELLER: Okay.

We found a neat little tool that can measure when a provider is using for bandwidth and in particular whether it's being used to throttle BitTorrent. And I won't go into the technical details but basically you run this test, crowd-sourced data source so go to the measurement labs site run this test and determine whether the ISP we are using here is using DPI to manipulate or block BitTorrent. We did a bunch of country classification and we discovered that basically China and Portugal as of about 2011 were some of the biggest throttlers of BitTorrent. Korea and Japan come up pretty high.

If you look at some of the top 10 throttlers in 2012 you see the Philippines Liberty Broadcasting. Typically you see the cable modem ISPs more likely to use DPI for bandwidth management than the DSL providers. And obviously because more of a shared medium. Astonia, Japan, JCON broadband in Canada Rogers Cable, Taiwan, TFN, and Great Britain was really pretty high on the charts, as well as Malaysia and Korea Telecom. If you go back in time a bit I didn't include that, we also did case studies where we looked at the way the battles over DPI played out in different regulatory environments. There's very interesting contrast there. In the U.S., Comcast was caught doing this after not telling their customers that they were doing it, it was a big explosion and Civil Society mobilization, and the FCC slapped their hands and as you can see after that happened, they really stopped doing it. And that was actually before they passed this net neutral rule and indeed the original order that slapped them on the wrist was overturned by the courts but Comcast and almost all other U.S.

ISPs simply stopped doing it. Canada, on the other hand, they had a full pledged regulatory proceeding. Regulator took full charge of setting new rules and principles for how to do bandwidth management and you saw the use of DPI increase after this regulatory system which kind of Byoungil's presentation said it happened in Korea, they said we sympathize, do it. But then there was lots of Civil Society mobilization after this data trails off though promised to stop doing it and I think most of them did. China, we have spotty data because not lots of Chinese are sitting around taking tests network tests monitored in English websites but we do have some data and really looks like China telecom is doing a lot of DPI and we have an extensive case study that paper isn't posted on the website but we finished it a few days ago but really interesting things happening in China.

You think of Chinese as being a repressed Internet population and they are in respects but people on the Internet, Netizens as they call them, are rising up and challenging what the ISPs are doing with BitTorrent. They took them to local court and actually won the case. They had polls on WABO and asked questions like: Do you approve of BitTorrent use or not? It would be like 93% yes, 6% no, these lopsided polls. I've heard you can buy votes in these Wabo polls, don't know what is going on there, but you see this vibrant Internet Netizen community protesting the use of DPI for tiered pricing plans and for BitTorrent throttling and almost all the plans that the providers for tiered pricing or user sensitive pricing were actually abandoned because of this mobilization.

What's different about China is that regulators never really did anything. They lack because they don't have a free Civil Society and open discourse they lack these connections between the population and the regulatory authorities that actually make them do anything when people get mad about something.

So when the U.S. and Canada we saw disruptive change in Internet but Net Neutrality norms are reaffirmed by the new technology. In China regulators failed to respond with the regulatory proceeding and nothing changed really.

In China bandwidth management issues are subordinate to larger questions of state security, national security and so on.

So that is my presentation. Thank you very much.

(Applause)

>> MODERATOR: Great. Wait, wait, wait. You have some privilege having -- you managed to do it within your time. You want to hear?

(Whistle)

(Laughter)

If I may, moderator's privilege. Do you think there is any legitimate player for the DPI in general or certain conditions or it should be not allowed? Use microphone, please. Yeah.

>> MILTON MUELLER: Absolutely. There are many legitimate applications of DPI, particularly private corporate networks but also in mobile technology bandwidth is scarce.

>> MODERATOR: If it's a public operators like ISPs who does the DPI in one way that's more concern.

>> MILTON MUELLER: The real question is how you implement it. Singling out a particular application like BitTorrent and saying we're going to crush that or singling out mobile VoIP and saying we'll crush that, this is obviously not a good thing, not technology but the particular implementation and discriminatory implementation that's the problem.

>> MODERATOR: I was a member of panel around behavior advertising or advertisement a few years ago. Discussion was ISPs wanted to implement VPI while Google or other service players under their terms and conditions if they notify users and user got consent, nobody raids, then they allow as final destination whereas the ISP as an intermediary, if they want to implement that DPI for advertisements, it will violate the secrecy of communication which is guaranteed in the Japanese constitution.

>> MILTON MUELLER: Excellent example. Same thing happened in the U.S. The ISP interests tried to do behavioral advertising and the FTC and Congress went crazy, I didn't consider that because it's not related to neutrality. But meantime Google and Facebook were developing the Web-based cookies versus clams, clams being DPI, cookies being cookies, so cookies were accepted but the power of cookies is really when it comes to behavioral advertising is not that different than DPI.

>> MODERATOR: Right. Okay. Let's hear from the consumers viewpoint by Jeremy and then we'll go to the discussion with other all people here. Thank you.

Jeremy.

>> JEREMY MALCOLM: Thank you very much.

So I probably won't take my allotted time, you'll be glad to know. The point I'm mainly addressing is fairly narrow. As we all know net neutrality is not just about throttling traffic or restricting but also about prioritizing traffic or services. And so that leads to hard cases, network neutrality principles would seem to outlaw practices that some consumers actually rather like. I'm calling it hard cases in Net Neutrality. Firstly about consumers international, we got -- 120 countries around the world.

The programme area I'm responsible for coordinating globally is called Consumers in the Digital Age which includes not only Network Neutrality and broader Internet Governance issues, privacy, pretty much anything related to the Internet or communications or technology. The work we do across consumers international is based around these eight consumer rights.

So that applies also in the areas of food and financial services and things that I claim to know nothing about.

But it cuts across the digital area. When you talk about Net Neutrality the ones that are most relevant are theses ones, right to be informed and right to choose. Right to be informed because if you're subscribing to an Internet service you need to know if there are any traffic management practices that are being -- that go beyond the ISP's technical requirements that will impact on your use of particular services or content. So you need to know what is being done.

The right to choose, well that's the one I think relates to the prioritization of traffic or services or content. Let's go on to talk a bit more about choice and cost as well. One of the things that is often used by the Net Neutrality opponents is the argument that Net Neutrality often different classes of service can actually bring down the cost so consumers don't necessarily want a full Internet service, they don't care if they have anything other than the web, this is the argument they use.

As long as they have basic web access, they're happy. And if that can be provided at lower cost then why not? So that's the argument the Net Neutrality opponents use.

From our perspective consumers don't favor low price at any price. We think there are other considerations that can counterbalance just pure low cost and this applies across the board. When talking about food we oppose like agricultural dumping or predatory pricing that can lead to lower prices but fully damaging in other ways. So conversely what about greater choice? It is generally a good thing except in a few limited cases like where there's the natural monopoly. In that case introducing choice can actually be detrimental to consumer welfare but in general we do say choice is a good thing. With that brand in mind let's go on to the case I'm talking about.

Whether network neutrality costs the consumer more, can we still be in favor of Net Neutrality? I think we can.

So the particular example that I found in this region is that particularly mobile providers, some land line -- some fixed line providers as well but mainly mobile providers will give you free access to certain Internet-based services, that don't count toward your data charge. I am actually living and working in Malaysia so that's the country I know best although I know this extends to other countries in the region. But in Malaysia we have about actually four major mobile network operators. But I've listed three here. Maxie's is the one I use. They offer Twitter for free, you don't have to count your Twitter usage towards your data charges. As long as the use the website rather than the app if you have an app on your Android or iPhone then that's not free but the usage of the website is free on Maxie's and for Facebook they have a cheap option where you can subscribe to Facebook at a much lower rate, than if you want to general Internet access.

Likewise, DG has a number of Web sites that are free and interestingly one is Wikipedia, non-commercial website, very interesting that there's no commercial deal behind it. I'm sure Wikipedia is not paying any money for this and probably Digi is not paying. Facebook, only limitation is you have to use the Opera browser but they are among the sites that are free. And for what's app usage is the most popular mobile VoIP client. They have a cheaper option for using what's app so you subscribe at fairly nominal cost in order to have unlimited usage of what's app and on -- line and Koko Talk, as we have heard from Byoungil is the most popular in Korea, so U mobile was covering both of those with its free service. They are competing among themselves. There's some overlap. Facebook and Facebook but otherwise we've got what's app from DG, lion and Kakao talk and competing with each other on the basis of that.

What is our response? Is this a good or bad thing? It's not really a simple question to answer. In some ways I'm not trying to tell you the answer, I'm trying to get feedback on what you think. So I think it boils down to how they do it. Is this anticompetitive or not? So there are various ways they could do it and these are not exclusive. There may be other ways as well but one way is the content provider or content delivery network the content provider uses may co-locate with the network provider on non-discriminatory commercial terms. In other words, say Digi has free access to what's app and say line or KT wants free access, too, maybe they can enter into a peering arrangement the same as what weighs app has and get free access. If that's possible, there's no discrimination, that's probably reasonable.

Benefits to consumers are there, it's not anticompetitive in the same way as some of the other options are. Because it's open for any competitive content provider to make its services available for free as well. So I think that's the least bad of the three ways that I've listed here.

The next one -- look, I've color-coded them for you as well, least bad in green. Next one is questionable, provider may provide content provider with preferential access to its network at no charge. Last one is network provider may charge content provider for preferential access to its network.

>> MODERATOR: On this do you see there's a need for information or informing users?

>> JEREMY MALCOLM: I've been trying to find out like what is the way this is done. I haven't been able to because it's confidential information. We don't know the arrangement that line or KT have with Maxie's or Digi or U mobile so I think it would be really useful for us to decide how we feel about this, if we knew that information, how anticompetitive is it? Is it just an open field where the provider says look if you want us to give access for free you have to peer in our peering point or whatever or is it that there's money being exchanged and if there is then obviously that's problematic because that is certainly discriminating against other services who aren't willing to pay. Especially if we are talking about something like Wikipedia, they wouldn't be able to pay money to subscribers from a particular mobile service.

So that would be problematic. I think there's an opportunity for research here. I think it would be very good if we could find out map the landscape I've only done a very cursory look at this but I think something more methodical would be useful in deciding: How do we feel? Is this a good hing for consumers or bad because in the longer run it's undermining choice and competition.

Remember the two consumer rights I was concerned with and this could limit choice. I think in Malaysia it's not so bad because you do have the three mobile providers and there is quite an easy way to port your mobile number across from one provider to another so you can keep the number and switch mobile providers so in that way you are able for switch from getting free line to freeways app without too much difficulty. But that in some other countries that may not be the case, you may not have such a competitive market or you may not have mobile number portability.

Shifting data charges to the content provider is a clear breach, we don't want to see that, but providing free access to third-party content that's voluntarily peered with the service provider I don't think that is necessarily a problem, so but I've just left off with that final point because I want to know was think.

We don't have a very fixed position but that's the approach I'm taking and just before I close because that's actually my last slide I realize I haven't really addressed overall theme in the sit down which was about global guiding principles on Network Neutrality so very briefly, many of you may know of or be members of the IGF, Global Network Coalition, newest Dynamic Coalition that's been formed. If you are not aware, have a look at the website, and what they're going is drafting a model framework on Network Neutrality, and it's a multi stakeholder coalition, at least in theory it is, there's not necessarily a lot of participation from governments for example but there are different perspectives on that list. There are some Network Neutrality cynics there or at least one cynic there.

So that is the idea of what a Dynamic Coalition is, meant to be a stakeholder coalition that comes together and develops some kind of more tangible output than a workshop can because that's over in 90 minutes whereas Dynamic Coalition can have longer-term outputs. So it's a very interesting exercise. They have already finished the first draft and incorporated changes and the next draft is going to be released on the 30th of September this month. So keep an eye out for that. I think it's a very interesting exercise. The only problem is that as Byoungil mentioned you can put out a declaration or recommendation or set of guidelines which subsequently just ignored because there is no enforcement mechanism for them, and there is definitely a clear risk of that with the IGF as well.

So in the longer term, if we are going to try to look at setting global guiding principles --

(Whistling)

-- we need to look hand-in-hand at the reform of the IGF to give it a more authoritative status in terms of the recommendations that can come out of it as an institution.

But that is my soapbox for another time, not this workshop, and I've used up my time anyway. So thank you for giving me the benefit of the whistle and hope actually we can talk more about this during the discussion period.

>> MODERATOR: Now having heard all the wonderful presentations now is time to discuss, but before going there, perhaps to summarize that in Korea the Jinobet has a forum, trying to pick up user's voice in stronger policy. While in Japan you mentioned or emphasized importance of the sommelier and user education yet we see not yet tangible movement arising from here. Blame me or whoever but -- and Milton, did you suggest anything for the action or you stopped at analysis?

>> MILTON MUELLER: Action had a major effect in the U.S. and Canada. Netherlands and it did not -- China, yes. So it's more of an argument about the relationship between activism and institutions than about recommendations for action per se.

>> MODERATOR: We'll take a few questions. Before doing so I'd like to ask you guys how many in this room are in favor of or holding a strong support on Network Neutrality principle as one of the very basic rights for Internet users or whatever? Raise your hands. How many really feel strongly about it? You don't have to raise that high but to see the temperature of the room. Just about 10 people so how many sort of relative depends on how it's implemented or which areas and conditional support. Raise your hands. Again, you can -- three times how many are wait-and-see. You don't have to raise your hands. It's in part educational, in part more of the discussion we need in specific manners.

With that, first I'd like to hear several questions as package and then sort it out any volunteers from the slides.

>> Adam Peak. Professor Jitsuzimi, why is switching hard? I think that's probably a question that might affect others. In the Japanese example. Only other thing to quickly mention is the secrecy of communications for Japan affecting deep packet inspection seemed to be something that ISPs only survey found they were violating and how significant is that and could a agreement to secrecy of communications be a global principle we could adopt. That would be one sort of idea and the other is that the Japanese business law requires what is the word -- nondiscrimination by telecommunications carriers which seems to be the basis of Network Neutrality in Japan.

>> MODERATOR: We can invite any other questions or comment.

>> From Hong Kong, I have a comment regarding Wikipedia. Content is actually bases on the Wikipedia so Wikipedia has agreements with telco providers for developing countries to provide content free of charge although in case of Malaysia, not developing country but India and Africa it's quite widely used.

>> MODERATOR: Interesting.

More questions?

(Pause)

I'll wait. Come on. Okay. Yeah.

>> This really goes to Jeremy. The other issue we've heard mention about is Facebook particularly partnering with mobile providers so you get free access to Facebook as part of, while it doesn't go into your monthly limited amount of whatever usage that you have. Is that a good or bad thing given that seems to be something that is both competitive and otherwise -- the other is that particularly in developing countries mobile providers will partner with a particular search engine, for example, Orange I think is across Africa partnered with Bing so your default search engine is Bing. Is that Network Neutrality or a good thing or otherwise a whole bunch of issues we could look at?

>> MODERATOR: I have six or seven questions. That is limit of my memory capability. So shall we start unless there is any urgent call. There can be two sort of classes or groups of questions one is largely tied on the ISP's behavior itself second is certain content providers if I am wrong, can we generalize after hearing from -- the question is why switching -- ISPs are so hot for users. There is a number of portability for mobile telephone to some degree but is there any port ability thing -- let's go with the first one.

>> I made a table of research about what makes switching cost so hard but I don't yet have any concrete, can't give you concrete answer but my impression is e-mail is the one of the biggest obstacles people -- when the people consider changing ISP. In the former days most of the e-commerce site has own user e-mail addresses. Not allow the user to use free -- Gmail or Hot Mail so not to be -- people are stick to their incumbent ISP so that when they face better deal from the Gmail -- or better ISPs as their, they think pretty hard to consider whether they should give up the privilege of the long term contract with some e-commerce site or give up their history which allow them to have a better recommendation of the site.

I think that's the one reason and also when they change the e-mail, they tell their friends this is my new e-mail, please send your message to this address, pretty troublesome for many users so I think that's the one reason why their switching cost is so high.

I think your second question is the secrecy of communication and -- principle.

>> Around this switching cost and ISP and stuff, is there any comment or further questions or remarks.

Milton, do you agree high barrier to switching ISPs in the U.S. or they don't care?

>> MILTON MUELLER: Well, the U.S. doesn't have this regulation that they won't accept free e-mail addresses for certain kinds of e-commerce site so that removes a lot of barrier. Most people are using Gmail and other kinds of most people's e-mail is detached from Internet service provider. But we did studies, actually quantitative studies with Korean partners on the switching costs associated with changing e-mail and I would agree you would have to change e-mail that would be aa very high switching cost.

There are people generally on the left, consumer advocates, that believe there is less competition and there is the right or the pro-deregulation forces tend to minimize switching cost. Main problem in the U.S. is typically there's only two fixed line ISPs so not a lot of choice.

>> Can I use Korean?

(Speaking a language other than English)

In Korea must be cost to change switch the ISP is whether we subscribe to some ISP we have the contract for some time, I think that's the most cost of ISP.

>> MODERATOR: Sorry if I'm pushing you but --

>> As far as Consumer International is concerned we did some, we had a campaign called "Don't Lock Me In" designed specifically to remove the barriers to switching ISPs which can be in the form of long-term contracts but can also be in the form of bundling where if you want to get pay TV you need to get Internet from the same provider. We were against both of those practices.

>> E-mail address is pretty big for user to change ISPs. Those can be observed in Japan in the -- we introduced mobile port abilities. Once mobile portability is introduced I think couple years ago transition from the incumbent, so severe and they went to -- loser of the market. Other two competitors are getting more subscribers from the incumbent.

>> MODERATOR: Especially because they didn't get the agreement with Apple to sell iPhone. That's the driver. But so then -- well, I see there's some correlation between ISP competitive situation and so called Network Neutrality. It's hard to prove yet it's your job perhaps as economist, I expect, so shall we move to the second question raised about the secrecy of communication which I just briefly mentioned the background is the -- U.S. after they won the war over Japan, sort of pushed us, they see all the censorship or manipulated media report, one which led to Japanese to believe the government and went to war so really wanted to keep privacy as well as all this free speech but drafting constitution with extreme strong sentence about it's the secrecy of the communication. Most Japanese -- that's the background but do you see there is a need, as Adam mentioned, about the secrecy of communication being more of a global guiding principles in these days with the NSA thing?

That's my question, not to Toshiya Jitsuzumi but to other panel members.

>> MILTON MUELLER: That was the amazing thing about case studies on DPI was that when people discovered what was being done, they were alarmed. They said, God, this has to be illegal. In many cases, most cases, it was not actually illegal. But their expectations were completely violated, their trust in the system was completely violated and this is the debate this the U.S. about what the NSA is doing. Congress are saying you knew, we knew this was happening, it's all being monitored, all be audited, yeah there's a few abuses here and there, but what's the big surprise? To the people it was a big surprise. So there was definitely a clash between people's expectations and what was happening.

>> MODERATOR: The context is different I think. After the war, Second World War you have another war and you have some people -- background of your national identity thing that you need to make sure they don't violate or invade Korean speech in general, right. But how is your take now about this secrecy of communication? Should it be an absolute right in the Korean context?

>> BYOUNGIL OH: Actually I mention about that in the workshop yesterday. We raised constitutional suit against -- security agency because that agency, about the packet wire tapping using DPI technology. Besides that, in the as I mentioned about business telecommunication, the business act, but if we see from the view of telecommunication act I think the throttling of mVoIP is also a violation of the act because telecommunication is occurred between two people so if you throttle the traffic of one person, you are also throttling the other person so if one person agree to the throttling, agree to the consent to the -- of users, terms and conditions but the other users don't didn't agree to the telecom, that might be a violation of telecommunication secret act of Korea but I don't know, Korean court how to decide about that.

>> MODERATOR: Okay. Jeremy, you mentioned about Dynamic Coalition. Are they dealing with the communication or any similar abiding principles under the proposed draft framework?

>> JEREMY MALCOLM: I think that's rather out of scope but that is obviously a hot issue for many people and the Best Bits Coalition has been doing work on that. We've had three or four statements on the surveillance issue. People can go to bestbits.net to look at those. In terms of where will be the appropriate place to set global principles we do have the Human Rights Council, but it has -- the time scale for it to put out any further statements on -- it won't be within the next 12 months. It would be because they have other things on their agenda obviously human rights is very important for people around the world other than Internet users so in the short term I think we, it's difficult to see where we'll set global principles. I would like to see the IDF having a role there but short term it's hard to see.

>> MODERATOR: 45 seconds.

>> Just to go back to the Japanese Telecommunication Business Law it actually says secrecy of communications being handled by a carrier shall not be violated. This is specifically about telecommunications law rather than human rights so this is something that could be perhaps promoted as a global principle within context specifically of Network Neutrality as opposed to the broader constitutional or as you are saying to this broader Internet principles where language is missing is the carrier and that goes to the point over-the-top or intermediaries do deep packet inspections so they can target advertising and that would not be covered by this law whereas the carrier would be for example.

>> It's not only carrier of the telecom. The business law is applied to all service operators under such ISPs.

>> So OTT carriers, so the intermediaries are covered.

>> Whether portal sites are covered I don't think it's directly covered but OTTs are covered.

You want to respond to Adam's comment?

>> MILTON MUELLER: Just to expand upon the complexity. If you are using DPI to say recognize applications, what applications are running on the network you're saying okay 20% of traffic is 30% is Netflix, 15% is e-mail, is that a violation of the privacy of the people using it? You are not really identifying them; you are looking at the types of protocols flowing over. Then same thing with the malware and scanning for viruses. You are looking into the packet and recognizing a signature. Clearly this is a power that can be abused. You can also look for the name Milton Mueller. If that name is in there, kick the packet out, but the point is: This is why the principle of consent is so important in the U.S. approach to these problems because if you want them to look like some of the deep packet providers who did not get into trouble were ones that made it very clear we're gonna give you free WiFi if you allow us to inspect your traffic and do behavioral advertising.

Those people tended to not get into trouble politically whereas ones that implemented it secretly and then told people later or discovered later they got into political hot water.

>> After using Japanese ISP but decision is unclear because the government has not said anything about deep packet. They just say secrecy must be respected in response to those attitude ISPs are currently making guideline, try to make safe harbors to help them secured from the possible litigation from the government or other stakeholders so they say that as government say this is not legal document, just a recommendation to the peer ISPs. If you follow this rule, we expect the government or Court will respect our rules and help us to solve these problems.

The only case they say they should be allowed to use DPI or other out-of-pocket shaping is when the condition makes some dangerous situation of the Internet itself so that's the only case they say that we allowed to use those packet shaping technologies.

Everybody in the Japanese framework is just waiting for the situation to happen and the government or the Court will do something clearly about when is the case of DPI or other packet sharing, to use one.

>> MODERATOR: Okay. Within the four minutes we have time remaining or we may have some extension, one minute over already, few minutes more. Is it okay? We have second group around interrelationship and ISP and content providers such as Wikipedia gets preferential deal with the developing countries speeds or how about Facebook and mobile providers particular arrangement with the search engines as Adam mentioned. Any views on this from the panel? Jeremy?

>> JEREMY MALCOLM: Well, I've given my views in the presentation and I would like to hear other people's views. Adam mentioned the search engine, is that a problem? I don't think that's necessarily a search, net neutrality issue if it's a default search engine, because they're not really prioritizing content by setting a default. I don't think that's a problem. The European Commission did think that was a problem and mandated a search engine choice with the windows operating system was bundled with the Microsoft search enablers default so I guess really depends how easy is it to change default.

If it's something that is relatively easy to do I don't think we can call it Network Neutrality. We may call it competition issue, though. Facebook, well I guess Facebook already has some dominance that there's an incentive for providers to make Facebook easily available to their users without requiring money changing hands but it would help to know.

Is this anticompetitive behavior or just the perpetuation of an existing dominant content provider in to the mobile medium?

I'd be interested to hear what other people think about that.

>> MODERATOR: Do you have any say about this? No. Come on. Is it becoming the issue special arrangement between ISPs and some portal sites in Korea?

>> I don't think so.

>> MODERATOR: People are happy with Korean-based auto services, I don't remember social networking only popular in Korea but not elsewhere. I'm asking him a question.

>> BYOUNGIL OH: To me Koreans -- Japanese much happier with the Korean content providers and not make too much of a Google or Yahoo!. Does it affect?

>> I'm sorry, you are --

(Laughter)

>> MODERATOR: In my observation Korean public do like to use domestic services such as maybe against Google or some I don't remember.

>> But I think that's not so much related to this issue.

>> MODERATOR: Okay.

>> Different aspect.

>> MODERATOR: Fair enough. Milton, you want to --

>> MILTON MUELLER: I just think fundamentally it's all about the level of competition so that suppose we had a perfectly competitive ISP market and you could have your choice of 75 different ISPs all offering homogenous versions of Internet access. If one of those said we are Christian ISP, we will only give you access to religious content that accepts Jesus as your savior, you know, don't buy it if you don't like it. No big deal. You can't regulate them on the basis of Net Neutrality.

So the problem comes when you have one or two ISPs and they start doing these things, to me it's more competition policy issue and the vertical leverage between bottleneck access segment and the content or handset or whatever it is you are talking about.

>> People mix two problems in one basket -- basic services but ISPs allowed to provide a better services for some fees because it's the cost must be incurred by some, from some revenue sources so as long as it's a Wikipedia or some Yahoo! or Google allowed to provide, not allowed to make contract with ISPs it's okay. And they ISPs or the -- content provider should be free to upgrade or pay much more for better services, as long as it's basic service is garden feed I think there should be -- we should allow the market dynamic to solve the situations that's my understanding.

>> MODERATOR: I'd like to hear from those countries and places who have not said anything yet. Pakistan? Yeah. Adam could you pass the microphone. There's such thing as competition in Pakistan or India or other countries.

>> Thank you, I just want to ask a simple question. We are convened for the classified Internet segregation of Internet content among kids, youngsters and teenagers. So if we found a search engine with classified database with certified database which has the identification of the contents is it safe for the kids or just to like content system into the SGML pages? Is there any conflict with the Network Neutrality policy?

>> I represent Internet Governance Forum of Pakistan.

>> MILTON MUELLER: Are these basically forms of content regulation imposed on the entire industry by the government. Obviously all kinds of people will classify content based on its appropriateness for children and people can make choices based on that but I would say there is a Net Neutrality issue in the sense in which I define it, like open access to all content if the government decides they are going to restrict what you can see based on your age group whereas more of a parental choice or individual choice in my world view.

>> We are planning for three different classification age-based, up to 9 year or 13 year for youngster and not controlled by the government. It's open. And we have a consortium of counsel at the global level. Each country may have their own rule or regulation apply for the selection of the criteria and the scheme.

>> Thank you.

>> MODERATOR: We have to finish in three minutes for caption. Any burning question? No? Unfortunately we couldn't go into the details of global framework and thanks to Jeremy or the coalition it gives us good reason to go to Bali and further discuss. I expect there is some workshops around this theme as well in the Bali but we'd like to feed some of the discussions into Bali's meeting. That's why we are just convening at this moment.

Thank you very much for the panel. We see several different aspects and we could not come up with one single position but that's the nature of the multi-stakeholder, multi-ideological, multi-whatever. We appreciate it.

With that, I would like to close the session. Thank you.

(Session concluded)

(Applause)

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