Net Neutrality Issues in the Developing Nations

Adetunmbi Lateef Kehinde

Saleh Rehiel A Alenazi

College of Arts and Sciences (CAS)
University Utara Malaysia
Malaysia

Ebrahim Mohammed Al-Matari
Faculty of Business and Economics
Ammran University
Yemen and Othman Yeop Abdullah Graduate School of Business
University Utara Malaysia
Malaysia

Ahmad Mahdi Salih

Wesam Ali M. Briki

Tamer Mohammed Aljarrah

Wan RozainiBt Sheik Osman

College of Arts and Sciences (CAS)
University Utara Malaysia
Malaysia

Abstract

The purpose of this article is to investigate how the developing nations can be affected by the issues of net neutrality. The result shows that net neutrality is vital to the releasing of the self- motivated possibilities of Information Communication Technology (ICT) in the developing countries. Innovations and advancement in commercial activities would be hampered by any anti-neutrality laws and also the varieties of welfare educational and humanitarian services that are now progressively been enhanced by the open nature of internet would be greatly constrained. The basic rule that there should be no preferential treatment to all traffics along the Internet irrespective of types and sources of contents simply described the term "Net Neutrality". As the internet continues to gain popularity worldwide and more people from the developing nations get connected on daily basis, there have been fresh requests by a number of Internet infrastructure providers (IIF), Internet service providers (ISPs) and other related companies for the elimination of net neutrality and introduction of rationing and restriction to flow of data as well as prioritization of some specific contents over their networks.

Keywords: Net Neutrality, IIF, ISP, Developing Nation, ICT

1. Introduction

The Internet now occupies a fundamental position in today's information-driven world; it serves, both as center and incentive for inventions, business development and social equality (Alexander, Bertrum & Sandra 2012).By acknowledging this Internet growing indispensable functions, a Ministerial meeting on the future of internet was organized by the organization for Economic Co-operation and Development (OECD) in 2008 and this brought about what is called *the soul Declaration for the future of the Internet.* All countries that participated in this meeting took the decision that an additional extension of the Internet was crucial for commercial development and fortunes, and they also consider that this action would boost an unrestricted communication and information transmission which is required in a free culture (OECD, 2008).

Openness or neutrality is a very significant characteristic of the Internet; it utilizes unrestricted, widely available rules which allow easy connection and creativity for everyone and all data that flow across the network are being handled more or less equally (FCC, 2014). Net neutrality or open Internet basically connotes that every related traffic should be handled similarly and transmitted at equal rate along the Internet. There should be no bias from the side of Internet infrastructure providers (IIF). The Internet now serves as a formidable strength behind socio-economic gains due to its excellent, trouble-free end-to-end principle [4]. Neutrality characteristic of the Internet facilitates creation of innovations and services by any individual from anywhere in the world, it has completely transformed how people connect ,interact, initiate and transact business as can be seen in applications like e-mail, Facebook voice-over IP etc. Any individual need no authorization from or pay extra fees to any Internet infrastructure providers before getting connection and everyone is free to launch new application without approval (FCC, 2014). Net neutrality has therefore become a big threat to big Internet Infrastructure providers so they would try to preserve a monopolistic tradition; this is exemplified by the Google/Verizon application for the elimination of net neutrality in the wireless connections (Boorstin, 2010).

Verizon strictly opposed these laws and took the case to Court in the United State of America; consequently a US court of appeal for the District of the Columbia circuit confirmed the FCC's power for the supervision and control over high speed Internet access provisions. The court also agreed with the FCC's conclusion that anti-net neutrality principles will cause the reduction of the distribution of broadband Internet access whereas the sustenance of net neutrality will generally foster the access. The court then cancelled the non-discriminatory and no-blocking segments of the net neutrality laws and requested the FCC to take necessary actions towards the sustainability of the net neutrality Meanwhile, with the new court ruling, the ISPs must always make available their network administrative system, their operation features and condition of service so that the customers would have informed choices (FCC, 2014).

Therefore the issue of net neutrality should not be seen as concerning IIF and ISPs alone but rather it is for all people and government around the world. Introduction of differentiated levels of fees for Internet usage will definitely slow down and discourage the new progress and development that are being witnessed worldwide in all human endeavors, businesses, ICT-driven government services, citizen rights and real-time information usage during emergencies coupled with the fact that most of the gains of neutral access are freely available to the people in the developed nations while those in developing countries are still on the waiting list (ADPFC, 2011).

2. Literature Review

2.1 The Internet's Worldwide Accessibilityand Recognition

Research revealed that more than 250million individuals were connected to the Internet in the year 2012 while the numbers that will get Internet access in 2103 was projected to be 40 percent of the global population (ITU, 2013). In 2011, it was stated by UN that internet connectivity is significant to fulfill citizen's right, though the net neutrality issues was not included. Also, through its special Rappoteur, the UN has clearly proclaimed that it contravened article 19, paragraph 3 of the international covenant on civil and political rights to disconnect any individual internet connection for any reason even if it has to do with academic property right Moreover, the UN urge all countries to modify or revoke the current intellectual charter act which allows individual internet connection to be cut off and desist from using those types of ruling(United Nations General Assembly, 2011).Having acknowledging the indispensability of extending the Internet connectivity, all countries are now trying to make their public services an ICT-driven for effective and efficient welfare, educational and commercial development. Internet accessibility is also being employed by big international corporations and small establishment residing in distant villages realizing the fact that it has the capability to push forward their business activities, minimize their general cost and give them better profitable access to their customers. Allowing restriction and rationing of traffic along the Internet in the developed nations will definitely have negative effect on the overall internet connectivity rules and regulations in the developing countries since most of their Internet service structures still rely on the developed countries for general connection. It is therefore imperative that the all net neutrality policies is preserved globally so that the socio-economic development in the developing countries that are now being enhanced by the gains of information technology will not be jeopardized (ADPFC, 2011).

Reports have confirmed that many nations have realized that rule of law in conjunction with individual cooperation are key determinants for the affordability and expansion of the internet and the nation's economy in general. For example Internet accessibility is now a citizen's right in France, Greece, Estonia, Finland, Spain and Costa Rica and this countries are advocating internet accessibility as well as packages that are in line with net neutrality for the whole world (Psaila, 2011). Also, deliberate recommendations for net neutrality have been executed by the Norwegian Post and Telecommunication Authority (NPT) (NPT, 2009). In addition, according to a BBC survey, "it was found that four out of five individuals globally are in favour of internet accessibility as a basic birthright" (BBC, 2010). A number of countries around the world have spearheaded many schemes for the extension of connectivity which is a well-defined sign that a non-discriminatory and open internet is very crucial in improving a durable commercial progress and general expansion of a nation's efficiency and effectiveness. For example ICT have now been distinguished as very significant for commercial advancement by countries like Malaysia, Turkey, Australia, Qatar and Singapore and it is clearly manifested in their government executed plans (Dutta& Mia, 2010/2011).

2.2 Internet Accessibility Issues in the Developing Nations

It has been pointed that developing nations could not defend themselves against the undesirable consequences of separating Internet into distinct subdivisions as quite a number of them lack necessary equipment's and skill that can handle that intricacies (Bochache et al., 2007),). In most emerging nations, a single or only small number of ISPs exist which are in the habit of monopolizing all area of telecommunication and go a long way to safeguard their long- established commercial venture by blocking repeatedly most internet users from making use of up-to-date and economical internet applications (VOIP) (ADPFC, 2011). Though in nearly all countries, the ISPs always forcing their dominant market power and this is achieved by a discriminatory internet control strategies. As an instance, ISP will always restrain the peer-to-peer and video streaming on its network and will only release it if it is in favor of its commercial advantage (Norwood, 2011). Also since Google as a big search engine will determine the information that can be retrieved through it, then the introduction of charges based on contents will encourage such a big corporation like Google to expand its dominant over the global online knowledge environment (Norwood, 2011).Moreover, a non-neutral policy will allow a social networking outfit like Facebook to easily "kill" any ambitious individual who may wish to launch his own similar application because the former can pay the ISPs to hold back its competitor (Klurfeld, 2011). In addition, to seek permission from ISP before connection will greatly curb various innovations that would have come from new online business owners, since the ISPs might decide not to welcome just anyone (Norwood, 2011).

2.3 Digital Divide Factors

Additional payment through differentiated levels of internet connection will in turn increases the so called "digital divide" and impedes general growth in poorer nations. Most importantly, as ICT- driven schemes like e-government has already started in most developing countries and ICT is now indispensable for general advancement in food production, learning and well-being, the extra payment for Internet will overturn all these benefits and those that are yet to come. Also, education have been greatly promoted by internet accessibility with digital information readily available and introduction of online real-time instructional approaches both in the school and distant learning for the general advancement of lifetime knowledge acquisition (Dutta & Mia, 2010). Fortunately, most information is now being disseminated through the internet at higher rate than published books (WIA, 2006).The gap between the developed countries with better internet accessibility and developing countries with inadequate accessibility does not solitarily described the meaning of "digital divide" but it also include accessibility gap within a country , neighborhood, institutions and common people. Better business possibilities can be easily obtained by people living in a metropolis with free and open internet and in the same manner, a neighborhood that can easily be connected to other inhabitants inside and beyond their neighborhood on familiar issues will flourish better most especially if it is easier for them to access e-government facilities in their neighborhood through the internet (Woyke, 2008).And as many of the government and non-government facilities are now being attached to internet, a number of communities will be shut out of important messages once they are not connected and this will put the government strategies in critical difficulties (Kim et al., 2010).

2.4 Promotion of New Businesses and Job Creation

The internet openness has created a free and vast global business environment which makes it possible for anybody to connect to online information, applications and assistance; a differentiated and bias internet will frustrate newly growing and minor online commercial ventures in the developing nations as those business-minded individuals are being stimulated by the neutral and non-discriminatory internet platform (Schonfeld, 2008). As the internet connectivity are now being fully utilized by a number of small businesses in the developing nations, they are now able to compete with big international corporation located in the developed nations through the accessibility to the free and open online world of internet (ADPFC, 2011). Also, as this is the era of cloud computing, the scientists and the individual business persons in the developing nations can equals those in the developed countries in achievements by making use of this new technology. Moreover, an open and nondiscriminatory Internet is more vital now as many individuals and organization in the developed nations are now making use of the cloud technology for information storage and retrieval. As reported by linthium, "the proposal by Google/Verizon for net neutrality elimination would quickly reduce the number of cloud computing vendors who will have to introduce new higher charges, and therefore, this will limit the choices for people who use cloud computing for commercial purposes and they will be force to pay extra fee to access the cloud" (The Economist, 2010). And more importantly, granting the ISPs freedom to control the internet traffic may encourage decide to give more preferences to bigger cloud computing providers and indirectly exclude the smaller ones from the benefits of the new technology by stopping them from their network or assign them to slower line (Linthicum, 2010).Furthermore, Mckinsey projected that from 10 to 14 million jobs can be created if the high speed internet connection of the developing countries can be made to be the same as that of developed nations in Europe (Buttkereit et al., 2009).

2.5 The Developing Nations Accessibility Channel

In the developed nation, about 71% individuals are connected to the internet compared with just 21% in the developing countries (ITU, 2010). Also an estimate of 90% of the global population now have cell phones, according on ITU statement (Shein, 2010) these cell phones have now become the ICT ubiquitous emblem (Kelly et al., 2009) and represent the individual basic channel for internet connection (ADPFC, 2011).According to ITU, the population of individuals that have gone online has increase to 2billion from less than 400 million between the year 2000 and 2010 and cell phones internet subscribers have reached almost 5.3 billion where 3G connections account for 17% of these; and surprisingly, more than three-quarter of the number of cell phones users are in the developing countries (Hondrogiannis, 2011).

Report have shown that the cell phone usage have increased in the democratic republic of Congo and Guinea from 5-59% and 2-56% respectively (Dutta& Mia, 2011). In addition, Kenya is the number one country in the globe where farmers make use of cell phones for banking transaction and sales of farm produce online (World Bank, 2011). This has actually added to the success of farming businesses and mobile banking in Kenya (FAOUN, 2010). Also, in Uganda a health program like MHealth is making use of text messages with cell phones and this has led to an increase in the numbers individuals who are being examined and advised for HIV/ AIDS by 40% (Deign, 2011).

2.6 Political, Cultural and Religious Effects

According to Norman and York (2010/2011),leadership of forty nations have been supervising the internet traffics and contents that they believed are offensive for societal and constitutional basis and more as a safety measure through the use of internet filtering (Norman & York, 2011). The findings also make it known that many autocratic government commonly used western filtering tools and service and a total of nine countries in Arab and North African countries have been confirmed to be employing these tools in obstructing more than 20 million individual users from getting connected to specific sites on the internet.

Most of the Middle Eastern nations are against the use of computers for internet connections based on political, cultural and religious reasons. Therefore, there are strong laws that narrow the levels of internet accessibility in many Arab and Islamic countries because the leadership believes that since the internet is based on western ideology which can cause moral decadence and political insurrection. Though the internet infrastructure development for better accessibility is ongoing in countries like Jordan and Egypt, there is increase opposition to the availability of free and open internet access in countries like Saudi Arabia. Libya and Iraq do not allow all kind of internet connections whereas Syria just restricts internet access to a very low level.

Also the flow of data along the internet are being directly supervised in Bahrain and Tunisia, and proxy server that do not allow people to be connected to "unwanted" web sites are being employed in Yemen and United Arab Emirates. Though internet accessibility is permitted in Iran nevertheless there is ongoing supervision that is not known to the outside world (Alterman, 2000).

3. Conclusion

The fact that the net neutrality has been an unimaginable socio-economic stimulant along with its resultant development is being brought to light with the excessive current progress-testimonies around the globe today. In spite of occasional suppressive law and negative policy on the internet, many countries in the developing world are still in the favor of improved and high speed internet connections for all citizens, meanwhile the fight on net neutrality still continues in the United States. An open and non-discriminatory internet is now the matter of all people in both developed and specifically the developing nations and should not be left for the IIFs and ISPs alone. The contemporary social order and global financial structure greatly relies on the online business strength of people living in distant villages of the developing nations who now depend on stable and strong internet connectivity. On the other hand, if the fight over the net neutrality which is mainly concentrated in the USA finally ended up with total elimination of all net neutrality principles then the whole socio-economic order in the most developing nations will be negatively affected because the few ISPs in the developing nation who relies on developed world for Internet connection backbone would also change their internet policies. Net neutrality or open internet is thereby indispensable in the developing nations for overall improvement in the socio-economic and administrative aspect of life.

The effort to make the benefits of the information communication technology reach all corners of the world is now being realized as many countries in the developing world are financing the development of ICT related infrastructures, now is the time to preserve the neutral internet. The present improvement and prosperity in the developing world will certainly be restrained and rolled-back by any anti-net neutrality policies and this will in turn broadened the digital divide between the rich and the poor in today's digital age.

References

A large number of respondents in countries like Japan, Mexico, Russia, Brazil and Nigeria said they could not cope without success. BBC (2010), Internet access is 'a fundamental right', 8th March 2010 http://news.bbc.co.uk/1/hi/technology/8548190.stm.

Access discussion paper for comment (ADPFC).(2011). The Importance of net neutrality in the emerging and developing world. Retrieved from http://s3.amazons.com/access.3cdn.net/6d698a85cebaff26c1_szm6ibxc7.pdf.

Alexander, L., Bertrum, H, M., & Sandra, T. (2012).First Monday Peer-reviewed.*Journal of the Internet*, *27*(5-7),pp?????

Alterman, Jon B. (2000). Counting Nodes and Counting Noses: Understanding New Media in the Middle East.*Middle East Journal*, 54(3).

Bochache, R et al. (2007).The Net Neutrality Debate and Development, DiloFoundation, March 2007 pg.19 http://www.diplomacy.edu/poolbin.asp?IDPool=453 (Last accessed 13th May 2011).

Boorstin, J. (2010). This proposal called for the maintenance of net neutrality for wired connection, but not for the wireless internet, Making Sense of Google & Verizon's internet Proposal, CNBC, 9th August 2010.http://www.cnbc.com/id/38631264/Making-Sense-of-Google-Verizon-s-internet-Proposal . 2010 Last accessed 13th May 2011.

Deign, J. (2011), African M-health: How Mobiles Save Lives in Developing World, CISCO, 24th January 2011 . http://newsroom.cisco.com/dlls/2011/ts_012411.html (Last accessed 13th May 2011). A UN Foundation, Vodafone Foundation report highlighted 50 mhealth projects

Dutta, S., & Mia, I. (2010/2011) op.cit. See this report for a comprehensive list of broadband strategies for these and other countries.

Federal Communication Commission (FCC). Open Internet. Retrieved from http:// www.fcc.gov/openinternet, accessed 23 April 2014.

Food and Agriculture Organization of the United Nations. (2010), Study on Potentials of Mobile phones in Investment and Development Projects, Working Paper, Report No: 10/014 FAO-GEN, Food and Agriculture Organization of the United Nations- Rome Investment Centre Division, 20th December 2010, http://www.e-agriculture.org/sites/default/files/uploads/media/Study%20on%20Potentials%20of%20Mobile%20Phones%20in20%investment%20Development%20Project%20.pdf (Last accessed 13th May 2011) p. 3.

Hondrogiannis, S. (2011). ITU tracks the decade that transformed the world, International Telecommunications Union, 1st March 2011, http://www.itu.int/net/pressoffice/stats/2011/01/index.aspx (Last accessed 15th March 2011).

International Telecommunication Union(ITU).(2013). Measuring the Information Society.Retrieved from http://www.itu.int/en/ITU-D/statistics/Documents/publication/mis2013/MIS2013_without_Annex_4.pdf accessed on 23 April 2014.

International Telecommunications Union (ITU). (2010), The World in 2010: Facts and Figures-The Rise of 3G, http://www.itu.int/ITU-D/ict/material/FactsFigures2010.pdf (Last accessed 13th May 2011).

Kelly T, et al. (2009), What Role should Governments Play in Broadband Development? Paper prepared for infoDev World Bank Workshop on"Policy Coherence in ICT for Development", Paris, 10-11 September InfoDev World Bank, pg 9 http://www.scribd.com/doc/25442592/What-Roleshould-Governments-Play-in-Broadband-Development (Last accessed 13th May 2011).

Kim Y, et al (2010), Building broadband: Strategies and policies for the developing world, Global Information and Communication Technologies(GICT) Department, World Bank, January 2010 p. 39 http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/282822-1208273252769/Building_broadband.pdf (Last accessed 13th May 2011).

Klurfeld, M. (2010). What Net Neutrality Really Is And What's Really At Stake, The Next Web, 8th July 2010 http://thenextweb.com/us/2010/08/07/what-net-neutrality-really-is-and-whats-really-at-stake/ (Last accessed 13th may 2011).

Lessig, L., &McChesney, R. W. (???) No toll on the Internet. Washington Post.Retrieved from http://www.washingtonpost.com/wp-dyn/content/article/2006/06/07/AR2006060702108.html.

Linthicum, D. (2010).The lowdown on Net neutrality and cloud computing, Infoworld. https://www.infoworld.com/d/cloudcomputing/the-lowdown-net-neutrality-and-cloud-computing-075 (Last accessed 13th May 2011).

Norman, H & York, C. J. (2010/2011), West Censoring East The Use Of Western Technologies by middle East Censors 2010-2011, Open Net Initiative Bulletin http://opennet.net/files/ONI_WestCensoring East.pdf p. 1 (Last accessed 13th May 2011).

Norwegian Post and Telecommunication Authority (NPATA).(2009), Network neutrality: *Guidelines for Internet neutrality*,http://www.npt.no/ikbViewer/Content/109604/Guidelines%20for%20neutrality.pdf (Last accessed 16th July 2011).

Norwood, T. J. (2011). Net Neutrality Died and Nobody Noticed, Sci-Tech News 19th April2011 http://rinf.com/alt-news/science-technology/net-neutrality-died-and-nobody-really-is-and-whats-really-at-stake/ (Last accessed 13th May 2011).

Organization for Economic Co-operation and Development (OECD).(2008). TheseoulDeclaration for the future of the Interne Economy.(18 June), at http:// www.oecd.org/dataoecd/49/28/40839436.pdf, accessed22 April, 2014.

Psaila, B. S. (2011). Right to access the Internet: the countries and the laws that proclaim it. An introduction to internet governance .http://igbook.diplomacy.edu/2011/05/right-to-access-the-internet/ (last accessed 16th July 2011).

Schonfeld, E. (2008), The Net Neutrality Debate All On One Page, Techcrunch, 31st August 2008 http://techcrunch.com/2008/08/31/the-net-neutrality-debate-all-on-one-page/ (Last accessed 13th May 2011).

Shein, E (2010). Mobile Networks Penetrate 90% of World's Population, Information Week, 19th October 2010, http://www.informationweek.com/news/smb/mobile/227900281 (Last accessed 13th May 2011).

The Economist (2010). The world turned upside down. http://www.economist.com/node/15879369 (last accessed 13th May 2011)

United Nations General Assembly (UNGA). (2011), Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, Frank La Rue, Human Rights Council Seventeenth session Agenda item 3, 16th May 2011, pg.21 http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf Last accessed 16th July 2011

World Bank. Mobile Banking Goes Viral: M-Pesa and Kenya's Telecom Revolution.http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/KENYAEXTN/0,,contentMDK:22770800~menuPK:50003484~pagePK:2865066~piPK:2865079~theSite.PK:356509,00.html (Last accessed 13th May 2011).

World Information Access (WIA). (2006), Developing Countries Put More Content Online Than Into Books, 15th March 2006 http://www.wiareport.org/index.php/32/developing-countries-put-more-content-online-than-into-books (Last accessed 15th March 2011).

Woyke, E. (2008). America's Most Wired Cities, Forbes.com, January 2008, http://www.forbes.com/2008/01/09/wired-cities-wifi-tech-wireless-cx_ew_0110wired.html (Last accessed 13th May 2011).