DiploFoundation

Policy Options for Connecting and Enabling the Next Billion - Phase II

1. How would you define, or how do you understand, the theme *Connecting and Enabling the Next Billion*?

The theme should be approached from a multi-layered perspective. Connecting and enabling the next billion entails both technical and human development. It depends on the deployment of infrastructure and affordable connectivity, on developing open and interoperable standards – which are particularly important to foster permissionless innovation and new entrants in the digital market – and also on making sure that individuals have the necessary digital skills and are able to receive and impart information online without discrimination. Internet content needs to be diverse in order to cater for the multicultural and multilingual needs of the next billion Internet users.

2. The first phase of *Connecting and Enabling the Next Billion (2015)* identified a set of policy options aimed at the creation of enabling environments, including deploying infrastructure, increasing usability, enabling users, and ensuring affordability. What are the factors to consider when adopting these policy options at local levels (e.g. the state of a country's market development, the available infrastructure, level of capacity-building, etc.).

In order to introduce efficient policies, it is important that the data collection (especially data on Internet usage and user preferences) is transparent and informs policy-making in a country. A good example are the surveys conducted by the Brazilian Internet Steering Committee (CGI.br) on the use of ICTs in households,[1] by companies, and in the education sector in Brazil. They provide sound information about the evolution of the Internet, helping policymakers to project its future.

Given that public-private partnerships are often used as the framework for implementing policies aimed at deploying infrastructure in unconnected areas, consideration should also be given to the private sector's capacity to engage in such partnerships. This would help governments determine whether private entities have the economic/financial capacity to make investments in the deployment of infrastructure in such areas, in exchange for certain governmental incentives (such as reduced taxes for a certain period of time, etc.), or whether it is more likely that the financial contribution needs to come from public funds only, while the public sector would take over only the actual work of installing the networks.

Another element to consider when introducing policies is whether the country has a vibrant civil society working on digital issues or if it has a tradition of bottom-up social organisation, for instance, around neighbourhood associations, trade unions, religious gatherings, or points of public access to Internet (LAN houses, libraries, cyber cafés). With adequate

[1] CGI.br (2014) *ICT Households 2014.* Available at http://www.cetic.br/media/docs/publicacoes/2/TIC_Domicilios_2014_livro_eletronico.pdf [accessed 27 July 2016].

support, these communities could self-organise to tackle some of their connectivity problems. The creation of community networks is an example of this. In addition, they can serve as focal points and disseminators of capacity building initiatives at local level.

In addition, the importance of ongoing capacity development cannot be over-emphasised. The implementation of policy needs to be supported by continual access to expertise and sharing of best practices.

3. Are you aware of any specificities around connectivity at a local or regional level? (In other words, do you know of factors that impact connectivity in, for instance, rural areas but less so at an urban level? Or factors that affect connectivity at regional or larger scale, but not as noticeably at local or smaller scale?)

Rural areas and island states are confronted with specific challenges, such as reaching users situated in regions where the deployment of certain types of infrastructure (such as cable or fibre optic) is technically challenging (e.g. mountain areas). These aspects negatively affect market incentives/ability to deploy infrastructure. Public-private dialogue and partnership seem to be fundamental to finding a solution that would preserve the public interest and be economically viable. Another element that can positively impact connectivity and affordability of the Internet is the deployment of IXPs.

Recent private initiatives to bring connectivity in densely populated areas – via drones, balloons, or zero-rating practices – have raised concerns about limiting access to a designated number of Internet platforms/services, which would accelerate a 'walled garden' Internet. In expanding connectivity, net neutrality and the free flow of information need to be observed.

An emerging challenge at regional level is the increasing number of governmental decisions, i.e., laws and court orders, that use Internet infrastructure as a proxy for enforcement. Since infrastructure does not necessarily conform to states' borders, extraterritorial effects – for example, affecting connectivity or access to specific platforms – can stem from these decisions,[2] raising issues of jurisdiction and encouraging stirring fragmentation.

4. Data shows that the growth of Internet adoption is slowing down in some areas, especially as broadband services extend to more remote, less densely populated areas (facing challenges beyond affordability and availability). What are some of the barriers or limitations preventing people who *do* have Internet access from being enabled or empowered through such connectivity?

In many developing regions of the world, affordability of connectivity is an issue that is yet to be overcome. The problem is aggravated by the fact that some people who have not

[2] The blocking of WhatsApp in Brazil, in 2015, affected the availability of the platform in Argentina and Chile. Caputo V (2015) *Bloqueio no Brasil tira WhatsApp do ar na Argentina e Chile.* Available at http://exame.abril.com.br/tecnologia/noticias/bloqueio-no-brasil-tira-whatsapp-do-ar-na-argentina-e-chile [accessed 27 July 2016].

previously accessed the Internet, particularly in the countryside, may not perceive it as an essential good. Therefore, when it comes to facing trade-offs and making choices with regard to family budget, access to the Internet is often one of the first things to be left aside. The conduction of surveys (Question 2) should be extended to some of these regions where connectivity is available but the population is not taking advantage of it. Only the collection of information on the ground can provide a sound answer to this question.

It is important to note, nevertheless, that some barriers still play a role, such as lack of literacy, in general, or digital literacy, in particular, and scarce content available in local languages. In such cases, digital literacy should not be limited to the development of practical digital skills, but should also be extended to explaining how the Internet can be used for growth and development (e.g. access to online education, using e-commerce). Good ways to give incentives for these individuals to connect would be to provide relevant public services online, in a swifter and less complicated manner; to develop policies that would facilitate small e-commerce and financial transactions online; and to create multilingual content.

5. What does *meaningful access* mean?

It is important, first of all, to clarify what is understood by connectivity. It encompasses not only tangible or physical infrastructure links, but it should also enable much wider links ranging from cultural, educational, spiritual, and even philosophical interaction.[3] Meaningful access should be more than simple technical access to the Internet; it should support core human and societal aims. For example, on a global level, meaningful access should contribute towards achieving the UN trinity of peace, development, and human rights. On an individual level, it should be the realisation of the creative and overall human potential of each individual. The protection of dignity should also be enhanced by meaningful access.

The capacity to receive and impart information freely is one of the preconditions for achieving meaningful access. Emerging issues, such as the dissemination of 'filter bubbles' and, more generally, the use of algorithms to rank information that will be available to the end user, are aspects that deserve careful consideration with regard to their potential impact on access to diverse sources of information.

6. How can connectivity contribute to reaching the new SDGs?
7. Can you think of ways in which ICTs or Internet connectivity could be used to help reach the SDGs?

Technology fosters human development, innovation, and economic growth.[4] ICT deployment, in particular, provides the foundation for the digital economy and plays a key

[3] Asia-Europe Foundation (2016) *ASEF Outlook Report 2016/2017. Connectivity: facts and perspectives. Volume I: Data on Connectivity.* Available at http://www.asef.org/pubs/asef-publications/3861-asef-outlook-report-2016/2017 [accessed 27 July 2016].
[4] OECD (2015) OECD Science, Technology and Industry Scoreboard 2015. Innovation for growth and society. Available at http://www.oecd.org/sti/oecd-science-technology-and-industry-scoreboard-20725345.htm [accessed 27 July 2016].

role in innovation activities.[5] For developing countries, it offers the opportunity to leapfrog old technologies by skipping the intermediate stages of technological development, provided that education and capacity building are offered to workers, empowering them for current and upcoming changes.

ICTs also underpin the evolution of the most important technological and business trends, such as the growth of the Internet of Things (IoT).[6] It is estimated that by 2020 the number of connected devices will reach 50 billion,[7] causing a profound change in the global economy.[8] This change will largely derive from that fact that the lines between digital industries and industries that are primarily physical, such as agriculture, construction, transport, and manufacturing, will increasingly blur.[9] The IoT will bring the latter closer to the cyber world and will radically change their way of doing business. At the same time, it will allow the largest software companies to shift to the physical world.

The IoT can provide policymakers with valuable just-in-time information that is necessary for better urban planning and for saving public resources. Nevertheless, in order to prevent the widening of the digital gap between developed and developing regions, it is important that the connectivity infrastructure that is being deployed today is adequate to carry the traffic that will be generated by connected objects and smart cities.

8. Do you know examples of stories where using ICTs to support development has not worked, and why?

The World Bank's recent report on *Digital Dividends*[10] shows that although the Internet's digital dividends have the potential to enable development, reduce inequalities, and narrow the gaps, these dividends are not being fully reaped. The Internet does not automatically bring about benefits; rather, several recommendations can be implemented to ensure that the Internet's true potential is realised (e.g. regulations promoting market competition and innovation, policies focused on education and digital literacy, and more accountable public institutions).

9. Do you know of examples of success stories that can illustrate how Internet access can help to address real-world problems (in either developed or developing countries)? For example, do you have stories or experiences to share regarding some or all of the following SDG-related questions:

- How can connecting and enabling users help to build effective, accountable and inclusive institutions at all levels? (SDG 16)

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[5] OECD (2015) *OECD Digital Economy Outlook, 2015.* Available at http://www.oecd.org/internet/oecd-digital-economy-outlook-2015-9789264232440-en.htm [accessed 27 July 2016].

[6] OECD (2015) *OECD Digital Economy Outlook, 2015.* Available at http://www.oecd.org/internet/oecd-digital-economy-outlook-2015-9789264232440-en.htm [accessed 27 July 2016].

[7] Evans D (2011) The Internet of Things: How the Next Evolution of the Internet is Changing Everything. CISCO White Paper. Available at https://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf [accessed 26 July 2016].

[8] Manyika J, Chui M, Bughin J, Dobbs R, Bisson P, Marrs A (2013) Disruptive technologies: advances that will transform life, business, and the global economy. Available at http://www.mckinsey.com/business-functions/business-technology/our-insights/disruptive-technologies [accessed 27 July 2016].

[9] Borgia E (2014) The Internet of Things vision: Key features, applications and open issues. *Computer Communications*, *54*, 1–31.

[10] World Bank (2016). *World Development Report 2016: Digital Dividends.* World Bank: Washington, DC.

At DiploFoundation and the Geneva Internet Platform, we made a practical contribution through just-in-time reporting from WSIS Forum 2016. This is in line with SDG 16, and in particular, with efforts to develop effective institutions and to ensure inclusive and participatory decision-making at different levels.

We walked the SDG talk together with the forum organiser – ITU – and ICANN and the Internet Society who all supported our reporting initiative. The aim was to provide participants following the WSIS Forum (close to 2000 stakeholders attended the forum in Geneva; hundreds of others participated online) with simple, engaging, and professional reporting from the event.

We could have done it in two ways. One option, arguably an easier one, would have been to recruit professional rapporteurs. A second, more difficult option was to train rapporteurs from different regions in the world, mainly developing countries. We went for the second option.

A team of around 40 rapporteurs were involved in writing the reports following a three-month training phase. They learned first-hand how to write professional and engaging reports. Each report was ready a few hours after the session ended. The reports then fed into a final report prepared by our *GIP Digital Watch* team.

We also shared our reports with local communities worldwide, in a bid to help them follow and understand the developments and the main aspects of digital policy. At the same time, participants at the WSIS Forum acquired an overall grasp of the proceedings, which is difficult to achieve with so many parallel sessions. In addition, our reporting initiative is sustainable. Our rapporteurs are now trained to report on local events.