



Stand Up For Digital Rights

Key Issues: Expanding Access

As a practical matter, promoting human rights on the Internet means expanding access, so that the benefits conferred may be enjoyed as widely as possible. Furthermore, access to the Internet is increasingly being recognised as a human right.¹ Although the past decades have seen a rapid increase in the number of people who use the Internet, important access gaps have also emerged. According to the International Telecommunication Union (ITU), globally the total number of people using the Internet as of the end of 2015 was 3.2 billion, of whom 2 billion were from the developing world. However, another 4 billion people, mostly from developing countries, remain offline. Of the 940 million people living in the least developed countries (LDCs), only 89 million, less than 10 percent, use the Internet. This may be contrasted with an overall penetration rate of 80 percent in the developed world.²

The gap between wealthy and poor countries is not the only divide. There is also a gap between urban and rural access, which is evident across both the developed and developing world. According to a 2010 census, 12.7 percent of urban dwellers in Ghana used the Internet compared with only 2.1 percent of rural dwellers.³ In 2012, a study found that 17.3 percent of urban Ugandans had used the Internet at least once in the preceding 3 months, as compared to 6.5 percent of rural Ugandans,⁴ while in India, the figures are 64 percent compared to just 9 percent.⁵ According to

¹ See, for example, the Joint Declaration on Freedom of Expression and the Internet, adopted by the special international mandates on freedom of expression on 1 June 2011. Available at: www.law-democracy.org/wp-content/uploads/2010/07/11.06.Joint-Declaration.Internet.pdf.

² Brahim Sanou, ICT Facts & Figures (May 2015: International Telecommunication Union (ITU) Telecommunication Development Bureau). Available at: www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf.

³ Alliance for Affordable Internet (A4AI), Affordable Internet In Ghana: The Status Quo and the Path Ahead (2014). Available at: a4ai.org/wp-content/uploads/2014/03/Ghana-Case-Study-Layout-Final.pdf.

⁴ Alliance for Affordable Internet (A4AI), Affordability Report (2015). Available at: 1e8q3q16vyc81g8l3h3md6q5f5e.wpengine.netdna-cdn.com/wp-content/uploads/2015/03/a4ai-affordability-report-2014.pdf. In Mozambique, the figure in urban areas was 26 percent, compared to 3.2 percent rurally.

⁵ Darrell M. West, "Digital divide: Improving Internet access in the developing world through affordable services and diverse content", Center for Technology Innovation at Brookings, February

the Canadian Internet Registration Authority, broadband connections are technically available to 100 percent of Canadians who live in urban areas, while in rural areas the figure is 85 percent.⁶ A study by the Pew Research Center found that 85 percent of urban adult citizens in the United States were classed as Internet users in 2015, compared with 78 percent of rural adult citizens.⁷

Various factors contribute to both discrepancies. Infrastructure challenges and costs are often significant and may be compounded in the developing world by the absence of a reliable power grid. Urban areas are smaller and hence easier to connect, and provide a higher density of prospective users, so they generally represent more economically lucrative targets for commercial access providers. Mobile Internet sites are also two to three times cheaper to build in urban areas as compared to rural ones.⁸ Put differently, it is more expensive to provide access to sparsely populated rural areas and these costs must be borne by a smaller base of customers, making it more expensive to connect rural areas.⁹

Landlocked countries also face challenges in connecting their people. Because major backbone connections tend to run under the ocean, landlocked countries can be at the mercy of their neighbours in terms of access. Across Africa, Internet penetration rates among the 16 landlocked countries average 13 percent, compared with an overall Internet penetration rate of 33 percent for the coastal countries.¹⁰ According to statistics from the ITU, prices for fixed broadband service, as assessed against purchasing power parity (PPP) are nearly four times higher in landlocked African countries than among the continent's coastal nations.¹¹

2015. Available at:

www.brookings.edu/~media/research/files/papers/2015/02/13%20digital%20divide%20developing%20world%20west/west_internet%20access.

⁶ Canadian Internet Registration Authority, The Canadian Internet (2014). Available at: cira.ca/factbook/2014/the-canadian-internet.html.

⁷ Andrew Perrin and Maeve Duggan, Americans' Internet Access: 2000-2015, Pew Research Center, 26 June 2015. Available at: www.pewinternet.org/2015/06/26/americans-internet-access-2000-2015/. As of December 2013, 79 percent of urban Australians had an Internet connection in their home, as compared to 72 percent of rural Australians. Australian Communications and Media Authority, Regional Australia in the digital economy, 14 August 2014. Available at: www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Regional-Australia-in-the-digital-economy.

⁸ Facebook, "State of Connectivity 2015: A Report on Global Internet Access", 21 February 2016. Available at: newsroom.fb.com/news/2016/02/state-of-connectivity-2015-a-report-on-global-internet-access/.

⁹ Jon Brodtkin, "Man builds house, then finds out cable Internet will cost \$117,000" Ars Technica, 30 September 2015. Available at: arstechnica.com/business/2015/09/man-builds-house-then-finds-out-cable-internet-will-cost-117000/.

¹⁰ Statistics from www.internetworldstats.com/stats1.htm. Estimates are from 30 June 2015.

¹¹ International Telecommunication Union, "Measuring the Information Society Report, 2015", (Geneva: ITU, 2015). Available at: www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf.

In developing countries as a whole, average monthly mobile broadband prices, as assessed using PPP, are twice as expensive as in developed countries, while fixed broadband prices are three times higher.¹² This impacts on urban-rural differentials since most of the world's poor live in rural areas.¹³ In the United States, median household income for urban areas was USD 52,988 in 2012, compared to USD 41,198 in rural areas.¹⁴ Across the European Union, the greatest share of population at risk of poverty is in thinly populated rural areas.¹⁵

The challenges of expanding rural access to the Internet were noted in a report by the United Nations Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression in 2011:

Internet access is likely to be concentrated among socioeconomic elites, particularly in countries where Internet penetration is low. In addition, people in rural areas are often confronted with obstacles to Internet access, such as lack of technological availability, slower Internet connection, and/or higher costs. Furthermore, even where Internet connection is available, disadvantaged groups, such as persons with disabilities and persons belonging to minority groups, often face barriers to accessing the Internet in a way that is meaningful, relevant and useful to them in their daily lives.¹⁶

As the Special Rapporteur notes, costs are only one part of the problem. A lack of demand can also inhibit the Internet's spread. Demand challenges can, among other things, be linguistic or social in nature. There are more than 6,900 different languages in the world, about 400 of which have at least one million speakers.¹⁷ However, while the World Wide Web abounds in content written in English, Spanish and Russian, far less material is available in less widely spoken languages.

A lack of relevant content, for example of a political, economic or cultural nature, or the absence of a significant number of users from a person's community to interact with, can similarly depress demand, since the utility of the Internet to a given individual depends in important ways on one's ability to connect with a relevant community. Disability can exacerbate other barriers to accessing the Internet, and

¹² Brahim Sanou, note 2.

¹³ Alain de Janvry, Rinku Murgai, and Elisabeth Sadoulet, "Rural Development and Rural Policy", University of California at Berkeley, June 1999. Available at: are.berkeley.edu/~esadoulet/papers/Handbook_text.pdf.

¹⁴ United States Department of Agriculture, Rural America at a glance (2014). Available at: www.ers.usda.gov/media/1697681/eb26.pdf.

¹⁵ European Commission Agriculture and Rural Development, EU Agricultural Economic briefs (May 2011). Available at: ec.europa.eu/agriculture/rural-area-economics/briefs/pdf/01_en.pdf.

¹⁶ United Nations Human Rights Council, Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 16 May 2011, A/HRC/17/27. Available at: www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf.

¹⁷ Darrell M. West, "Digital divide: Improving Internet access in the developing world through affordable services and diverse content", Center for Technology Innovation at Brookings, February 2015. Available at: www.brookings.edu/~media/research/files/papers/2015/02/13%20digital%20divide%20developing%20world%20west/west_internet%20access.

marginalised groups in general are under-represented online. In developing countries, women are 25 percent less likely to be online than men.¹⁸

It is worth noting that these various infrastructural, economic and social challenges can be mutually reinforcing. Just as infrastructure challenges can drive up the cost of access by forcing ISPs to pay more to connect users, high access costs depress demand, further driving up per capita infrastructure costs. Low demand, in turn, limits the development of culturally relevant content from underserved areas, further reducing the incentive for these users to get online.

Regulatory obstacles can also inhibit the expansion of Internet access. These can be overtly designed to limit the spread of the Internet, for example where there is official suspicion of its potential use to support activism and political mobilisation, but more often they are the result of a lack of understanding of the mechanics of how the Internet works. For example, laws are often proposed which would impose licensing obligations on various sorts of Internet services, without taking into account that these are completely different in nature from the offline models that regulators are basing the licensing rules on.

Although problematic legislation is, of course, an issue for which governments, rather than the private sector, bears primary responsibility, private sector players can play an important positive role in helping to overcome this.

Free Internet and Progressive Pricing

The most obvious area where private sector actors facilitate the spread of Internet access is through programmes to provide free access to new users. Some of these projects are remarkably ambitious. Google and Facebook have announced projects to connect rural users through high altitude balloons and solar-powered aircraft, respectively.¹⁹ Pricing is a major area where private sector policies can have an impact on the spread of the Internet. While it is understandable that ISPs might wish to charge more to rural customers, reflecting the higher costs associated with this, these pricing differences exacerbate the existing digital divide.

From a human rights perspective, better practice would be to minimise, or ideally to eliminate, pricing differential based on location. In some places, government programmes or regulations harmonise prices between urban and rural users. For example, the Broadband for Rural Nova Scotia initiative was a public-private partnership that required broadband access to be provided to any household that

¹⁸ *Ibid.*

¹⁹ See: Project Loon, available at: www.google.com/loon/; and Yael Maguire, "Building communications networks in the stratosphere", Code Facebook, 30 July 2015, available at: code.facebook.com/posts/993520160679028/building-communications-networks-in-the-stratosphere/.

requested it at the same monthly cost being paid by urban customers.²⁰ Other governments offer grants or loans to extend access to rural households or impose regulatory regimes which effectively require urban customers to subsidise rural access.²¹ Even where these arrangements are not in place, access providers should consider adopting pricing schemes which render Internet access affordable for all potential users and which extend access as widely as possible. This responsibility is particularly acute where a company has a monopoly in a particular region, so that a decision not to provide access to certain users or to price a connection beyond what residents can afford effectively denies them access. In order to further ease the economic challenges that underlie the digital divide, companies could also consider offering subsidised Internet to poor households.

Where economic pressures against universal service are particularly challenging, cost saving measures such as providing slower or capped access for rural users are preferable to not providing access at all. A slow or capped connection still delivers most of the Internet's core benefits, including social communication, political engagement, access to news and information, and most forms of telecommuting. Bandwidth-intensive services like video streaming are popular, but if there really is a need to choose between pricing Internet access beyond generally affordable levels, or offering slower or capped service, the latter are clearly preferable.

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As the variety of essential (or 'near essential') communications networks evolve, states employ a more complex range of strategies with the objective of maximizing connectivity, each envisioning differing roles and obligations for the intermediary service providers involved. Australia's National Broadband Network (NBN), for example, sought to build a national high speed fibre (or near-fibre) network with public revenues, and to then grant commercial service providers access to this network, in effect elevating the quality of all domestic networks in ways that would not have been achieved by commercial parties alone.²² In reviewing its Universal Service obligation

²⁰ Motorola, "The Fastest Province in Canada" (2008). Available at: www.motowirelessnetwork.com/pdf/sm_vertical_market_segment_sales_tools/carrier_wisp/Case%20Study_Nova%20Scotia%20Project.pdf.

²¹ United States Department of Agriculture, USDA Announces Funding for Rural Broadband Projects (20 July 2015). Available at: www.usda.gov/wps/portal/usda/usdahome?contentid=2015/07/0212.xml.

²² OECD, "The Development of Fixed Broadband Networks", January 8, 2015, DSTI/ICCP/CSIP(2013)8/FINAL, pp 24-25; The scope of this obligation was narrowed somewhat following: National Broadband Network, "Strategic Review – December 2013", Final Report. A number of EU states also employ public funding schemes outside the scope of the Universal Service obligation as a means of facilitating broadband growth: BEREC, BoR(14)95, p 43. The European Commission has allocated 500 million Euros to fund broadband deployment projects within the European Union: Robert Viola, "500 Million € for Broadband Projects – Fund Manager Needed", June 13, 2016, *European Commission: Digital Single Market*, <https://ec.europa.eu/digital-single-market/en/blog/500-million-eu-broadband-projects-fund-manager-needed>.

the Canadian Radio-television and Telecommunications Commission (CRTC) chose to announce targets of 5 / 1 Mbps downstream / upstream that it expected to be made available in all rural areas. While not a strict regulatory obligation imposed on any service provider, the CRTC clearly indicated that it would monitor the realization of these targets with the expectation that if they were not met within a given timeframe, heavier regulatory tools would be employed.²³

As a final example, the United States Federal Communications Commission (FCC) established a “Connect America Fund” drawn from the existing Universal Service Fund and dedicated to broadband deployment. As an initial condition, Fund recipients were obligated to deploy broadband networks capable of supporting at least 10 / 1 Mbps residential connectivity.²⁴ The Fund itself is comprised of mandatory annual donations from service provider non-rural revenues, creating a subsidization mechanism overseen by the FCC.²⁵ It is therefore not dependent on direct government investment from general revenues, but does allow for such investment to enhance infrastructure development timelines or to compliment infrastructure development schedules in other ways.²⁶ More recently, the FCC recognized that higher quality broadband (25 / 3 Mbps) was required and not being universally provided in a sufficiently timely manner by current levels of private and public investment.²⁷ It is currently examining ways to best achieve this higher level of connectivity.²⁸

²³ Canada, CRTC, Telecom Regulatory Policy CRTC 2011-291, *Obligation to serve and other matters*, May 3, 2011, File Nos: 8663-C12-201000653, 8663-C12-200912437 & 8663-C12-200909658. The European Union adopted a similar EU-wide target approach, set to achieve basic broadband access for everyone by 2013, and at least 30 Mbps coverage for 100% of European Union citizens coupled with at least 50% of households adopting 100 Mbps connections by 2020. These targets are monitored by Eurostat: European Commission, “A Digital Agenda for Europe”, May 19, 2010, COM(2010)245 Final and OECD, “National Broadband Plans”, June 15, 2011, DSTI/ICCP/CISP(2010)9/FINAL), p 16.

²⁴ United States, Federal Communications Commission, *In Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability*, FCC-15-10A1, paras 143-145.

²⁵ https://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db1211/DOC-330989A1.pdf

²⁶ https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-190A1_Rcd.pdf. As noted above, 8 EU states also impose explicit narrowband or broadband connectivity obligations in their national legal or regulatory regimes: BEREC, BoR(14)95, pp 39-42.

²⁷ United States, Federal Communications Commission, *In Re: Inquiry Concerning Deployment of Advanced Telecommunications Capability*, FCC-15-10A1.

²⁸ *Ibid*. The European Commission has also recently completed a consultation in order to determine how to address EU broadband requirements past 2020: EC, “Public Consultation on the Needs for Internet Speed and Quality Beyond 2020”, September 11, 2015, <https://ec.europa.eu/digital-single-market/en/news/public-consultation-needs-internet-speed-and-quality-beyond-2020#EN>. The consultation has ended, and the Commission is now preparing a report that will establish the next stage of its regulatory approach to broadband: EC, “Contributions and Preliminary Trends of the Public Consultation on the Needs for Internet Speed and Quality Beyond 2020”, March 3, 2016, <https://ec.europa.eu/digital-single-market/en/news/contributions-and-preliminary-trends-public-consultation-needs-internet-speed-and-quality>.

Promoting Demand

In addition to keeping costs of access down, intermediaries can play an important role in breaking down other barriers to access. This is a responsibility which will mainly fall on content and software providers, rather than access providers. In terms of accessibility measures, the World Wide Web Consortium's Web Content Accessibility Guidelines are an excellent starting point for facilitating access for the disabled.²⁹ Popular content providers and software developers should work to expand accessibility for underserved communities, for example by translating their platforms or content into new languages. According to the Broadband Commission for Digital Development's 2015 report, only 5 percent of the world's languages (by number of languages) are currently present on the Internet.³⁰ Major international actors, including Facebook and Google, should treat this as a priority, since they often serve as gatekeepers for vast stores of online content.

Cutting Off Access

State-mandated measures to cut off or deny service to users are considered highly intrusive from a freedom of expression perspective and are almost never justified according to international human rights law. International standards also hold that cutting off access to an entire population or segment of the public is never justified.³¹

Where a government demands that an access provider cut off or deny service to a user or group, this places the provider in a difficult position. They should resist these measures as far as possible, and not implement them unless confronted with a clear and binding legal instruction to do so. Even where a clear and binding legal instruction is in place, access providers should consider the broader human rights implications of their actions and whether there are viable alternatives. Options might include leaving the country or seeking external leverage to resist the request, such as through diplomatic support from their home government, as discussed in the section on Responding to State Attacks on Freedom of Expression. In addition, access providers should be transparent when asked to cut off access, including about having received the request and how they have responded, as part of their routine transparency systems. In all instances, access providers should push back against any orders to cut off access as far as possible, including by making use of any

²⁹ World Wide Web Consortium (W3C), Web Content Accessibility Guidelines 2.0, 11 December 2008. Available at: www.w3.org/TR/WCAG20/.

³⁰ "The State of Broadband 2015", UNESCO, 2015. Available at: www.broadbandcommission.org/documents/reports/bb-annualreport2015.pdf.

³¹ See Joint Declaration on Freedom of Expression and the Internet, 1 June 2011. Available at: www.law-democracy.org/wp-content/uploads/2010/07/11.06.Joint-Declaration.Internet.pdf.

legal appeal mechanisms. Beyond legal requirements, voluntary schemes to cut off access should be avoided by access providers.³²

³² Nate Anderson, “Major ISPs agree to “six strikes” copyright enforcement plan”, Ars Technica, 7 July 2011. Available at: arstechnica.com/tech-policy/2011/07/major-isps-agree-to-six-strikes-copyright-enforcement-plan/.



Stand Up For Digital Rights

Recommendations for Expanding Access:

Infrastructure:

- Internet access providers should invest a reasonable proportion of their profits in expanding the infrastructure for providing access to the Internet, particularly so as to reach underserved communities, including potentially through entering into public-private partnerships to advance this goal.

Cost Measures:

- Internet access providers should consider funding or otherwise supporting programmes or schemes designed to support access for poorer households.
- Internet access providers should work to mitigate or eliminate pricing differentials between rural and urban customers.

Promoting Accessibility

- Private sector online intermediaries (intermediaries) should promote the development of content of relevance to less connected communities and/or in smaller languages, and awareness raising in those communities and language groups about the potential of the Internet.
- Intermediaries should promote accessibility for the disabled by adopting the World Wide Web Consortium's Web Content Accessibility Guidelines.

Other Issues:

- Internet access providers should make reasonable efforts to monitor attempts by governments to adopt legislative rules which unduly undermine the expansion of access to the Internet and should engage in

or support awareness raising and advocacy efforts to combat such moves.

- **Internet access providers should never acquiesce to an external request to cut off access or deny service to a user unless required to do so by a clear and binding legal order.**