Internet Access

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Going online enables people to participate in society, to learn, to find work, to connect with family and friends, and to gain access to public services. Indeed, it is likely that implementing Social Guarantee will soon depend on universal access to digital information and communications technology (ICT). The UK government is aiming to put as many of its services online as possible with a 'digital by default' strategy that is 'so straightforward and convenient that all those who can use them will choose to do so'[1]. The more it becomes normal to access services online, the more difficult it will be to do so in any other way.

While ICT is growing exponentially it is still a long way from being equally distributed. A 2015 report for the World Economic Forum observed that there were as many mobile subscriptions as human beings on the planet, but half of the world's population did not have mobile phones and 450 million people still lived out of reach of a mobile signal[2]. 'Digital poverty' remains widespread between and within countries. In Iceland, Norway and the Netherlands, more than 95% of households have access to the internet, but in Mexico, Costa Rica and Columbia, between a third and a half of households do not[3].

Those most likely to lose out are rural communities (because telecommunications companies are not prepared to meet the high costs of covering greater distances, leaving signals that are poor or non-existent)[4] and poor households everywhere who can't afford the equipment or connections. There are also sharp regional inequalities in information infrastructure within countries. Many large cities in the UK can only receive broadband at speeds below the minimum standard threshold[5].

Persistent inequalities in access to ICT have been attributed to the fact that governments have allowed market failure 'by promoting the free market rationale and using competition as the instrument for improving digital connectivity, instead of defining new technologies as utilities'[6]. ICT should be treated not simply as a commodity for sale at market prices, but as a public

good or utility that is accessible, sufficient and affordable for all, as a matter of right. In other words, it should be a universal basic service.

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Access depends on two main factors: a signal with sufficient capacity (speed, volume and reliability) to communicate information, and a device for using the signal to communicate. And it is worth remembering that signals and devices are a means to an end. The ultimate purpose is for people to have access to the means of participation in the social, political, and economic realms.

A decade ago, Internet access was primarily associated with landlines on the old telephone networks. Today it is increasingly wireless, through the mobile phone networks, which became the majority vehicle of worldwide traffic in 2016[7]. So while implementing an Information UBS is likely to involve some mix of mediums and technologies depending on specific geographies, in the main it will be about providing sufficient access to wireless networks.

In most countries the mobile networks are managed by regulated enterprises with varying degrees of competition and regulatory obligations for public interest[8]. In all cases it has been established that the airspace through which the signals are transmitted is a public asset, and so providers bid at auctions for the rights to use certain spectrums of frequencies for their transmissions, which they then lease under conditions set by the authorities, which might include maximum coverage of the population. This model served the growth of television broadcasting in the 20th century and allows the public interest to be asserted in exchange for private use of public assets. Similar schemes enabled universal access to telephony and postal services before the television era.

It is probable that countries implementing an Information UBS will leverage these regulatory and legal structures to ensure universal access and to keep costs for the basic service to a minimum. For example, in December 2018, the UK government announced its intention to bring in legislation to ensure that universal high speed broadband is delivered by a regulatory Universal Service Obligation (USO), giving everyone in the UK access to speeds of at least 10 Mbps by 2020[9].

What might constitute sufficiency in this field? As technologies continue to develop, so will ideas about what is sufficient – and it will be a matter for informed democratic dialogue to create and review standards over time. To help assess likely costs, we must make some assumptions and look at existing available services. A package of daily services that includes 30 minutes of talk time, 30 messages, and 30MB of data can be judged to provide reasonable access to communications and to information on the worldwide web.

Commercial mobile services that include at least that amount of usage are available in many developed markets for around $10 (up to £8) a month[10]. Public WiFi networks can provide at least that level of access at the same or lower cost. These are often created through partnerships between public, commercial and non-profit organisations. If we settle on a $120 a year per person (or a little over £90) the costs in an average OECD country[11] would be around 0.3% GDP.

What about a device? Several options exist here: commercial provider obligation, manufacturer contracts, and domestic production. Some combination of these means of supply could be leveraged to satisfy a diverse set of needs and provide more choice. Already commercial providers commonly include a free device with their service contracts and even if this required additional subsidy it would not push the cost of the service beyond reach. Given the volume of need for appropriate devices across government and service providers it could be that the government itself would enter into a supply contract with a major manufacturer to meet its own needs and make the same available to anyone, or even go so far as to license technologies and negotiate dedicated domestic production[12]. In any case it will cost something to make devices available and if we allocate another $120 (or £90+) per person per year to this, the total cost of the Information UBS - including communications services and devices - would be 0.6% GDP in an average OECD country.

The service and the device are useless without the skills to use them. A significant part of digital exclusion is the result of a lack of skills. A 2018 survey found that 11.3 million people in the UK did not have basic digital skills, and 4.3 million had no digital skills at all. Age, gender and low income were the main predictors of low skills[13]. It is a job for education (as a universal basic service) to make digital skills more universal. This calls for reform of the primary and secondary school curricula, as well as adequate resources to ensure that schools can deliver. Adult education services will play a key role in upgrading skills in step with evolving technology.

One of the main worries people have about ICT is the growing might of a handful of global corporations and their power over governments as well as individuals. So it is important to point out here that there are now many hundreds of thousands of locally generated initiatives in towns, cities and neighbourhoods across the world, whose purpose it is to keep that power at bay. They work to extend internet access by improving the speed and reach of signals, by making public spaces available (such as libraries and cafes), by sharing devices, by enabling communications within neighbourhoods through customised local platforms, by offering training in digital skills and by lobbying governments[14].

Some work in partnership with public and/or commercial organisations; others operate independently. Guifi-net in Barcelona describes itself as 'a bottom-up, citizenship-driven technological, social and economic project with the objective of creating a free, open and neutral telecommunications network based on a commons model'[15]. The Magnolia Road Internet Cooperative

specialises in bringing high-speed Internet to mountain communities in Colorado, prioritising 'the customer over profit'[16]. 'Platform cooperatives' are a growing phenomenon, formed by nurses, delivery drivers, musicians, care providers, photographers and many others to challenge the dominance of tech giants such as Amazon and Uber by democratising and taking back control of the Internet[17]. But to call any of these typical would do no justice to their infinite variety in size, form and working practices. They are as much part of the Social Guarantee landscape in ICT as are local co-ops and other non-profit organisations in care and housing services. If they are recognised, valued and adequately supported by public authorities they will continue to thrive and grow. They not only help to make ICT accessible and affordable, but also – crucially – they can enable people to control and shape the way they use the internet.

A universal service is a vehicle for meeting everyday needs. It will reduce inequalities that currently arise from digital exclusion. It can help people stay in touch without having to travel. For the economy, it can help business development at all levels. A 15-year study of 35 OECD countries found a strong positive relationship between broadband investment and economic growth through information exchange, new services and telework, which together helped to increase GDP by an average of 0.38% annually[18].

End Notes

[1]Parliamentary Office of Science and Technology. (2015). 'Trends in ICT'. Post-Note 510: 2.

[2]Dutta, S. et al. (eds). (2015). 'The Global Information Technology Report 2015'. World Economic Forum, p.xv.

[3]OECD. (2017). 'Internet Access'. https://data.oecd.org/ict/internet-access.htm.

[4]Salemink, K. et al. (2017). 'Rural development in the digital age: A systematic literature review on unequal ICT availability, adoption, and use in rural areas'. Journal of Rural Studies, 54: 360.

[5]Hunt, T. (2018). 'The case for universal basic infrastructure', in Berry, C. (ed). 'What we really mean when we talk about industrial strategy'. Future Economics, p.95.

[6]Atkinson, R.D. (2011). 'Economic doctrines and network policy'. Telecommunications Policy, 35 (5): 413-425.

[7]Worldwide StatCounter. 'Desktop v mobile market share worldwide'. http://gs.statcounter.com/platform-market-share/desktop-mobile/worldwide/#yearly-2010-2018.

[8]European Commission. (nd). 'Telecom Rules'. https://ec.europa.eu/digital-single-market/en/telecoms-rules.

[9]House of Commons Library. (2018). A Universal Service Obligation for Broadband. https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8146.

[10]Sky UK. (2019). 'Choose how much data you'd like'. https://www.sky.com/shop/mobile/plans/data; Belong AU. (2019). 'Explore Belong Sim Only Plans'. https://www.belong.com.au/mobile/plans/small-sim-plan.

[11]OECD. (nd). 'Level of GDP per capita and productivity'. https://stats.oecd.org/Index.aspx?DataSetCode=PDB_LV#.

[12]See for example Apple manufacturing in India for Indian market to accommodate tariffs on imports https://www.wsj.com/articles/apple-assembles-first-iphones-in-india-1495016276?mod=e2tw.

[13]Lloyds Bank. (2018). 'UK Consumer Digital Index 2018', p.16-27.

[14]Connecting Devon and Somerset. (nd). https://www.connectingdevonandsomerset.co.uk/#; Community Networks. (nd). 'Community Network Map'. https://muninetworks.org/communitymap.

[15]Guifi.net. (nd). 'What is guifi.net.'. http://guifi.net/en/what_is_guifinet.

[16]Magnolia Road. (2018). Magnolia Road Internet Cooperative. https://magnoliaroad.net.

[17]Scholz, T. (2016). 'Platform Cooperativism: Challenging the Corporate Sharing Economy'. Rosa Luxemburg Stiftung, New York Office.

[18]Koutroumpis, P. (2018). 'The economic impact of broadband: evidence from OECD countries'. Ofcom, p.14.