

Development in Brief



No 2, 20 January 2015

Digital divide – how widespread is inequality in the digital world?

Author: Annemie Denzer-Schulz

Editor: Simone Sieler

Over the last few years, information and communications technology (ICT)* has spread around the world at tremendous speed. Digitalisation has revolutionised the everyday lives of many people: information can be called up in seconds and messages sent internationally at high speed. Even in developing countries (DCs), there appears to be significant potential for using these technologies. However, what is access to ICT like in these countries?

“Digital divide”: what does it mean?

In the developmental debate, “digital divide” describes the differences in terms of accessing and using ICT, both between poor and rich countries as well as within a society. International efforts are being made to close this “digital divide” under the assumption that ICT has positive effects on growth and development. The extent of the digital divide varies between the individual types of technology.

Mobile telephony is the most widespread

According to data published by the International Telecommunication Union (ITU), there are almost as many mobile phone connections in the world as there are people: almost 7 billion, and around three quarters of these are in DCs. Measured by the proportion of the population, the global diffusion rate for mobile phone connections in 2014 was estimated at 90 % (industrialised countries, ICs: 121 %, least developed countries, LDCs: 55 %). However, as many mobile phone users have several connections and SIM cards, in reality far fewer people actually have access to a mobile phone network. Therefore according to the estimates of the international association of mobile operators, GSMA, the proportion of the population in DCs with an actual mobile phone connection (unique subscriber penetration) is just 41 % (Sub-Saharan Africa: 33 %).

In 2012, almost half a billion people lived in areas with no mobile network signal. DCs are also trailing far behind in terms of the expansion of mobile broadband connections that enable Internet access (21 % versus 84 %).

Internet access is often reserved to towns and cities

The number of worldwide Internet users has increased tremendously over the last few years (see figure). In 2014 around three billion people were “online”. The divide in terms of Internet access is greater than for mobile telephony: while an average of 78 % of the population in ICs had access to the Internet, it was just 32 % in DCs. In LDCs, more than 90 % of the population was “offline” (Sub-Saharan Africa: 83 %).

There are a number of reasons for the huge gap with regard to Internet access, such as poor or no data connections. Although connecting coastal regions by means of an undersea cable, such as in Africa, has made a big difference over the last few years, there is still a lack of regional and international transmission lines, especially in land-locked countries and rural areas. Quick broadband connections are often only available in urban areas. There is less incentive for the private sector to link up rural areas (there are few and

primarily low-income users over a large area), and therefore growth in the number of connections is far slower in rural areas than in large urban centres. However, there is great potential for digital networking to include hitherto disadvantaged groups, e.g. by providing access to financial services through mobile banking or delivering high-quality healthcare by means of telemedicine.

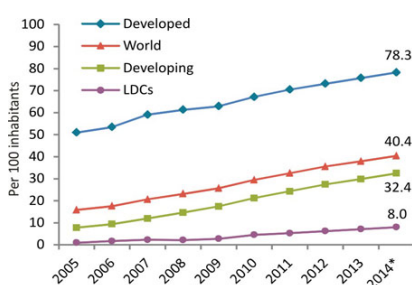
Socio-economic barriers slowing down the use of ICT

Participation in the digital world does not just rely on a country’s technical infrastructure (“connection to the network”), but also on political and socio-economic factors such as Internet freedom, income, age, education and gender. There are still fewer women with access to the Internet than men (DCs: -16 %, ICs: -2 %). Furthermore, language barriers can hinder the use of digital media. Around 90 % of Internet content is created in ICs and around 70 % of the pages are only available in English. Ease of use and local content are an advantage, especially in DCs. This is demonstrated by the success of M-Pesa – the mobile payment system developed in Kenya is available in local languages and does not require Internet access. The fact that some of the costs are extremely high represents another barrier: fast mobile network connections in DCs are around six times more expensive than in ICs. Additional structural problems such as unstable energy supply make it even more difficult to use ICT.

Conclusion

Digital media have grown at terrific speed over the last few years, even in developing countries. However, a divide still exists in many areas and the need for infrastructure investment is huge. Therefore new innovative financing approaches are required. At the same time, issues such as the regulation of telecommunication markets and the reduction in user barriers must be tackled in order to make digital media accessible and affordable for as many people as possible in developing countries. Development cooperation can play an important role in this respect. ■

Figure: Proportion of Internet users, 2005–2014



Data source: International Telecommunication Union 2014

* ICT includes all technical devices and applications that can digitally execute, process, store and transmit information, such as fixed line networks, mobile telephony, Internet, radio, software and satellite systems.