

»» The digital revolution – its potential and risks for sustainable development

No. 3, 27 January 2016



Author: Thorsten Scherf
Editor: Dr. Julia Sattelberger

"Digital revolution" and "Digital change" - concepts such as these are increasingly gaining importance in the development debate, focusing not only on potential but also on mitigating risks.

Digital technologies hold vast potential for sustainable development

Digitalisation offers huge opportunities for promoting the development process:

- by deploying information and communication technologies (ICT), companies can reap efficiency gains. New business models, jobs and innovations can be created, leading to greater economic dynamism (growth, productivity and income).
- ICT can also contribute to enhancing the efficiency of the state's administrative activities, e.g. through the digitalisation of processes in the civil registration system, fiscal administration, the management of expenditure, in traffic management, or in collaboration between different ministries and administrative levels. ICT can also help improve political participation (e.g. through feedback mechanisms), providing more transparency and uncovering corruption.
- Thanks to the Internet and mobile telephony, private households gain faster and much easier access to information, and are able to use better and less expensive products and services (e.g. mobile banking, m-health and e-learning), while new platforms for representing their interests give them a greater say in politics.

However, expectations are not always met and there are also risks

The above-mentioned opportunities offered by digitalisation do not, however, arise automatically and may even, under certain circumstances, have an adverse

impact. The main risks include:

- Monopolisation: the economy of the Web (economies of scale and near-zero incremental costs) may enable Internet companies (e.g. search engines, social networks) to acquire a dominant position and squeeze other providers out of the market. The lack of competition means that prices rise and those companies that survive create less innovation.
- Unemployment and polarisation of the labour market: the increasing automation of routine tasks may result in employees, especially those who are poorly qualified, losing their jobs or being exposed to particular wage pressure, while demand for highly qualified, technically skilled specialists increases. This leads to a polarised labour market with, on the one hand, an eroded middle class and, on the other, more and more employees in the higher and lower income distribution bands.
- Abuse: digitalisation also creates new ways in which data can be misused (e.g. phishing, hacking). Repressive political regimes in particular may utilise digital technology to monitor their citizens more closely or manipulate them, instead of further empowering them.
- Unequal access and use: Over 60% of the world's population have no Internet access. At the same time, with technical access as it now stands, the costs particularly for broadband Internet vary widely and may, in developing countries, be many times higher than in industrialised countries. As a result of this, large population groups are effectively prevented from using these technologies.

In sum, it can be seen that not all countries and population groups benefit to the same extent from digital

technology's potential. Indeed, existing inequalities in income, education and political involvement may even be exacerbated.

Conclusions for development policy

The undeniable risks posed by digitalisation should not lead to the technology in general being ignored or even discredited. Rather, international development cooperation should make an active contribution to exploiting ICT's potential, with a particular view to improving government action and opening up the technology to disadvantaged parts of the population, while limiting the risks they face.

A key focus here must be on bridging the digital divide by ensuring universal and affordable broadband Internet access, most of all for deprived regions and target groups. This access is absolutely essential if we are to make the most of the economic and social opportunities of digitalisation for sustainable development. But technical access alone is not enough. Other important spheres of activity in terms of development policy include:

- Enabling digital structural change, setting up a regulatory framework to promote long-term competition and innovations in the digital economy, and preventing abuse;
- Supporting the adaptation of education systems to meet the challenges and realise the potential of digital change;
- Promoting the development of ICT applications tailored to the needs and skills of poor and disadvantaged population groups. ■

Literature

World Bank (2016): World Development Report: Digital Dividends