The digital economy now permeates countless aspects of the world economy, impacting sectors as varied as banking, retail, energy, transportation, education, publishing, media or health. Information and Communication Technologies (ICTs) are transforming the ways social interactions and personal relationships are conducted, with fixed, mobile and broadcast networks converging, and devices and objects increasingly connected to form the Internet of Things.

How can OECD countries and partner economies maximise the potential of the digital economy as a driver for innovation and inclusive growth? What are the evolutions in the digital economy that policymakers need to consider and the emerging challenges they need to address?

The full potential of the digital economy has yet to be realised

Global trade for ICT manufacturing and especially ICT services continues to grow. Business Enterprise Expenditures on Research and Development and the recent increase in ICT-related patents reveal the key role played by the ICT sector in innovation. Broadband markets are expanding, with an increase in wireless broadband subscriptions - reaching close to 1 billion subscriptions in the OECD area - offsetting a decrease in fixed telephony. The performance of communication networks is improving with the deployment of fibre and 4G, while prices are declining, in particular for mobile services.

- There is significant potential to expand coverage and improve the quality of fixed and mobile broadband infrastructures. New OECD methodology for measuring advertised fixed broadband speeds will facilitate governments’ ability to maintain progress towards the Internet of Things.

- With growing demands placed on networks and more spectrum resources needing to be allocated to mobile communications, the complementarity of fixed and mobile networks will need to be exploited. Fixed infrastructures are critical for offloading and backhauling wireless traffic and to enable better use of available spectrum. Policy makers are testing innovative licensing schemes to increase efficiency in the use of spectrum.

- The potential is huge for increased adoption and use by firms of ICTs and the Internet to boost growth and innovation, across all sectors. While most firms in OECD countries have a broadband connection – 95% of all enterprises with more than 10 employees in 2014 – few use enterprise resource planning software (31%), cloud computing services (22%) or receive electronic orders (21%). Differences among countries and between small and large firms remain considerable.

- New business models based on collaborative production methods, such as crowdfunding platforms, and new “sharing economy” platforms challenge existing regulation of established markets and call for balanced policy responses that enable innovation while protecting the public interest.

- The scope for further uptake is also significant for individuals. Consumers account for a small portion of e-commerce, with up to 90% of e-commerce being business-to-business transactions. Despite wide diffusion, intensity of Internet usage continues to vary, particularly for activities associated with a higher level of education such as e-government, e-commerce and online banking.
Boosting economic and social growth through national digital agendas

Governments in OECD countries are increasingly aware of the need to develop the digital economy in a strategic manner, to expand its benefits and respond to key challenges such as reducing unemployment and inequalities, and lifting people out of poverty. Today's national digital strategies cover issues ranging from business creation and productivity growth to public administration, employment and education, health and aging, environment and development. Overall, governments are increasingly aware that “Internet policy making” depends on a set of coherent, whole-of-government policies:

- Infrastructure – which provides a foundation for new business models, e-commerce, and new collaborative scientific and social networks - needs to be of high quality, accessible to all and available at competitive prices.
- With competition in the digital economy being challenged by several major shifts including technical convergence and the integration of business models among telecommunication providers and new Internet players, governments must also engage in efforts to protect competition, lower artificial barriers to entry, and strengthen regulatory coherence. The consolidation of mobile markets must not reduce innovation or the ability of other actors to compete.
- Encouraging higher uptake of ICTs is essential, particularly by government and businesses including SMEs.
- Trust in the reliability and security of online networks, services and applications need to be secured, and users assured that their privacy and consumer rights are protected. The OECD has called on leaders and decision makers to integrate digital security and privacy risk management in their broader economic and social risk management frameworks, rather than addressing these issues as separate technical and legal challenges. Cybersecurity strategies should be supplemented with national privacy strategies, so as to address privacy issues in a co-ordinated, holistic manner and identify the limitations society is willing to accept to serve collective public interests.
- Through ICT-related education, training and re-skilling, people must be equipped with the appropriate skills to make use of ICTs and to manage risks to their online social and economic activities, with a view to fostering entrepreneurship, employment and e-inclusion.
- Recognising the potential disruptive effects of going digital is critical. Governments will need to facilitate the transition of workers to new types of digital jobs.

Internet governance: A policy priority for the years to come

The Internet community is developing a proposal to transition oversight of the Internet's technical resources from the United States government to the global multi-stakeholder community. In September 2015, the United Nations will launch the post-2015 development agenda, setting sustainable development goals, which are likely to include increased access to ICTs and the Internet to create an inclusive and global digital economy. In December 2015, the mandate of the multi-stakeholder-led Internet Governance Forum (IGF) will come up for renewal.

Underlying these initiatives is the fundamental need to preserve the openness of the Internet. The conception of the Internet as an open platform, where businesses, citizens and governments can serendipitously innovate and develop applications and services, has enabled numerous innovations in the digital economy. In recent years, however, concerns have emerged that the economic and social benefits brought by the open and decentralised architecture of the Internet and by the free flow of trans-border data may be affected, directly or indirectly, by issues such as territorial routing, local content or data storage requirements, network neutrality, universal acceptance of multilingual domain names and the creation of alternative networks.

The benefits of, and risks to, an open Internet will be discussed by ministers and other high-level stakeholders at the forthcoming OECD Ministerial Meeting in 2016, along with other key issues pertaining to global connectivity, the Internet of Things, demand-side initiatives to foster innovation and trust in the digital economy, and ways to foster job creation and develop the skills needed to maximise the benefits of the digital economy.
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doi: 10.1787/9789264232440-en