High-level conference
Shaping our digital future:
the challenge of the digital revolution

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EUROPEAN PARLIAMENT THINK TANK – TOPICAL DIGEST

April 2018

Policies on digital economy and society have steadily gained in importance for the EU as the digital revolution has gathered pace. The aim is to create a seamless digital single market and a European gigabit society, through which all businesses and citizens can take full advantage of what digitalisation offers. The main EU action was launched with the 2015 Digital Single Market Strategy, which proposed legislative and non-legislative initiatives cutting across many policy fields. A mid-term review showed that most are either in the negotiation phase or have already been agreed. However, as technological progress continues and digitalisation becomes increasingly essential for economic growth and participation in society, the need to continue the debate on policy development has never been greater. This Topical Digest offers a sample of recent publications on issues in adapting to digital realities.

Investing to unlock digitalisation, boost competitiveness and avoid a Digital Divide

Adapting to digital realities. Main issues and policy responses
Briefing by Naja Bentzen, Mar Negreiro, Nikolina Sajn, Vincent Reillon and Marcin Szczepański, European Parliamentary Research Service, April 2018
Digital technologies are transforming our lives and the world around us at an ever-increasing pace. This unprecedented change presents opportunities and risks to European economy and citizens. Ensuring that Europe is ready with its infrastructure, closing the digital divide, boosting innovation, creating new opportunities for consumers and removing barriers for businesses are crucial in order to reap the benefits of the new digital era.

The regions in the Digital Single Market
Briefing by Vasileios Margaras, European Parliamentary Research Service, April 2018
The digital economy is growing at seven times the rate of the rest of the economy. The European Commission estimates that completing a digital single market could contribute €415 billion per year to Europe's economy, create 3.8 million jobs and transform public services. Local and regional authorities may also benefit from many of the opportunities which the digital era offers.

Towards a European gigabit society: Connectivity targets and 5G
Briefing by Mar Negreiro, European Parliamentary Research Service, June 2017
In September 2016, the Commission put forward new strategic connectivity objectives for 2025 as part of its digital single market strategy. These should prepare Europe for the roll-out of the next generation of broadband infrastructure with gigabit speeds, including both fixed and mobile internet access (5G). Once available, from 2020 onwards, 5G is expected to enable an array of new innovative services that will transform sectors such as manufacturing, energy, vehicle manufacturing and health, bringing them into the era of the internet of things.

Understanding artificial intelligence
Briefing by Vincent Reillon, European Parliamentary Research Service, January 2018
Artificial intelligence (AI) systems already permeate daily life: they drive cars, decide on mortgage applications, translate texts, recognise faces on social networks, identify spam emails, create artworks, play games, and

intervene in conflict zones. The AI revolution that began in the 2000s emerged from the combination of machine learning techniques and 'big data'. The algorithms behind these systems work by identifying statistical correlation in the data they analyse, enabling them to perform tasks which a human would require intelligence to perform.

Digital skills in the EU labour market

In-depth Analysis by Monika Kiss, European Parliamentary Research Service, January 2017

Digital technology is more and more interwoven into every field of public, private and working life. Consequently, digital skills have growing importance for everybody. How can society and citizens, in particular vulnerable groups, such as the disabled or long-term unemployed, get onto the digital train and stay abreast of new technologies and methods? How can digital skills at the workplace be developed and used more efficiently? This publication seeks to answer such questions through describing the characteristics and types of digital skills, and exploring their presence in society and on the labour market. It further analyses the digital literacy of workers, gives an overview of EU-level actions undertaken in this domain, and points to some best practices.

Further reading:

EU electronic communications code and co-investment, *Briefing by Tambiama Madiega, EPRS, February 2018*
The Social Protection of Workers in the Platform Economy
Study by European Parliament Policy Department for Economic and Scientific Policies, December 2017
The future of work in the EU
Briefing by Monika Kiss, European Parliamentary Research Service, April 2017
WIFI4EU - Promotion of internet connectivity in local communities
'EU Legislation in Progress' briefing by Christian Scheinert, EPRS, November 2017
The new European electronic communications code
'EU Legislation in Progress' briefing by Marcin Szczepanski, EPRS, November 2017
Optimal Regulatory Model for Telecommunications Services in the EU
Study by European Parliament Policy Department for Economic and Scientific Policies, March 2017
Achieving a sovereign and trustworthy ICT industry in the EU
Study by the Scientific Foresight Unit (STOA), European Parliamentary Research Service, December 2017

Innovation, research and the use of data in the digital age

Developing supercomputers in Europe

Briefing by Mar Negreiro, European Parliamentary Research Service, October 2017

A number of companies, universities and start-ups are racing to develop the fastest supercomputer in global rankings. So far China, Switzerland and the US occupy the top four places, while the EU does not feature in the top 10. To address the situation, the European Commission has launched, as part of its European cloud strategy, a target plan to acquire and develop European high-performance computers that would rank among the world's top three by 2022. This would allow European science and technology actors to regain competitive advantage.

Free flow of non-personal data in the European Union

'EU Legislation in Progress' briefing by Mar Negreiro, European Parliamentary Research Service, December 2017

The Commission presented a proposal for a regulation on a framework for the free flow of non-personal data on 13 September 2017. It aims to establish the principle of free movement of non-personal data in the Union and enable easier switching of cloud-service-providers for professional users. In December 2017, the Council agreed its position which would allow Member States to impose data localisation requirements only when these are justified on grounds of public security. Work in the European Parliament is currently ongoing within the Committee on the Internal Market and Consumer Protection.

Data flows- Future Scenarios

In-depth Analysis by European Parliament Policy Department for Economic and Scientific Policies, November 2017
Prepared at the request of the European Parliament's Committee on Industry, Research and Energy (ITRE), this paper examines the current state of play in the open data market and the legal framework in the EU. Barriers and possible solutions are identified in the form of future scenarios to 2020-2025. The key policy recommendation is to instigate a system of Open Data Licensing to drive access to open data, akin to open source software licensing.

Further reading:
A renewed industrial policy strategy, *Briefing by Marcin Szczepański, EPRS, November 2017*
Digitising Industry (Industry 4.0) and Cybersecurity
Briefing by European Parliament Policy Department for Economic and Scientific Policies, October 2017
What if computers were trillions of times faster?
'At a glance' note by Lieve Van Woensel, Scientific Foresight Unit (STOA), EPRS, January 2017
What if blockchain technology revolutionised voting?
'At a glance' note by Philip Nicholas Boucher, Scientific Foresight Unit (STOA), EPRS, September 2016
What if I had to put my safety in the hands of a robot?
'At a glance' note by Lieve Van Woensel, Scientific Foresight Unit (STOA), EPRS, November 2016
What if your shopping were delivered by drones?
'At a glance' note by Lieve Van Woensel, Scientific Foresight Unit (STOA), EPRS, May 2015
ENISA and a new Cybersecurity Act
'EU Legislation in Progress' briefing by Mar Negreiro, European Parliamentary Research Service, January 2018
Reform of the e-Privacy Directive,
'EU Legislation in Progress' briefing by Shara Monteleone, EPRS, September 2017

Opportunities and risks, including trust, security, and privacy in a digital economy

Contracts for supply of digital content
'EU Legislation in Progress' briefing by Rafał Mańko, European Parliamentary Research Service, February 2018
The digital content directive is part of a proposed package, with the online sales directive, to facilitate the development of the internal market for such content. The Council has agreed its approach, seeking to clarify the relationship between the proposed contract law rules and the personal data protection regime – a hotly debated issue. Furthermore, it would strengthen the position of consumers with regard to conformity and remedies.

Disinformation, 'fake news' and the EU's response
'At a glance' note by Naja Bentzen, European Parliamentary Research Service, November 2017
The impact of the online spread of mis- and disinformation – including false news posing as factual stories – became increasingly visible in the context of the crisis in Ukraine, and gained notoriety as a global phenomenon during the 2016 presidential election campaign in the United States. Ahead of the European elections in 2019, the EU's answers to these challenges are still only tentative.

Further reading:
Understanding conspiracy theory, *'At a glance' note by Naja Bentzen, EPRS, April 2016.*
Contracts for the supply of digital content and personal data protection
Briefing by Rafał Mańko and Shara Monteleone, EPRS, May 2017
Consumer Protection Cooperation
'EU Legislation in Progress' briefing by Nikolina Šajn, European Parliamentary Research Service, October 2017
The proposed Directive on Copyright in the Digital Single Market (Articles 11, 14 and 16) Strengthening the Press Through Copyright
Briefing by European Parliament Policy Department for Citizens' Rights and Constitutional Affairs, December 2017
The Audiovisual Media Services Directive
'EU Legislation in Progress' briefing by Ivana Katsarova, European Parliamentary Research Service, June 2017
Assistive technologies for people with disabilities
In-depth Analysis by Philip Nicholas Boucher, Scientific Foresight Unit (STOA), EPRS, January 2018

Ensuring an online platform economy that benefits businesses and consumers

Online Platforms: How to Adapt Regulatory Framework to the Digital Age?
Briefing by European Parliament Policy Department for Economic and Scientific Policies, September 2017
Platforms, understood as a method of organising digital markets that allows two groups of users (suppliers and customers) to meet, are one of the pillars of the digital market. They facilitate its development, providing

adequate solutions to the needs of the sharing, collaborative, data, and P2P economies. Platforms that often operate as marketplaces have a triangle structure where users must first conclude a contract with the platform to be subsequently able to conclude contracts among themselves. The status of platform user is very often difficult to define, as platforms allow rapid development of the activities pursued, which pushes users outside the realm of consumer. These two characteristics make platforms difficult to fit with the EU market and consumer regulations.

[Boosting e-Commerce in the Digital Single Market: A Foundation for European Growth and Competitiveness](#)
In-depth Analysis by European Parliament Policy Department for Economic and Scientific Policies, September 2016
This paper reviews global trends in e-commerce and provides an analysis of the opportunities a Digital Single Market (DSM) would create for European entrepreneurs. The paper argues that the economic impact of the DSM could be enhanced by placing greater attention on the enabling conditions for entrepreneurial success, particularly by ensuring entrepreneurs have access to anchor customers, an ample supply of growth capital, sophisticated management talent and well-coordinated supports for scale-ups and internationalisation. This document was prepared at the request of the Committee on Internal Market and Consumer Protection.

Further reading:
[Understanding non-tariff barriers in the single market](#)
Briefing by Marcin Szczepanski, European Parliamentary Research Service, October 2017
[Geo-blocking and discrimination among customers in the EU](#)
'EU Legislation in Progress' briefing by Tambiama Madiega, EPRS, February 2018
[Perspectives on transatlantic cooperation: Digital Economy](#)
Briefing by Risto Nieminen, European Parliamentary Research Service, July 2016
[Fact Sheets on the European Union: The ubiquitous digital single market](#)
Fact sheet by Mariusz Maciejewski / Louis Dancourt / Magdalena Dimova / Chloe Grondin, European Parliament Policy Department for Economic and Scientific Policies, November 2017
[Single digital gateway](#)
'EU Legislation in Progress' briefing by Christian Scheinert, EPRS, September 2017
[The Juncker Commission's ten priorities: State of play in early 2018](#)
In-depth analysis by Étienne Bassot and Wolfgang Hiller, EPRS, January 2018
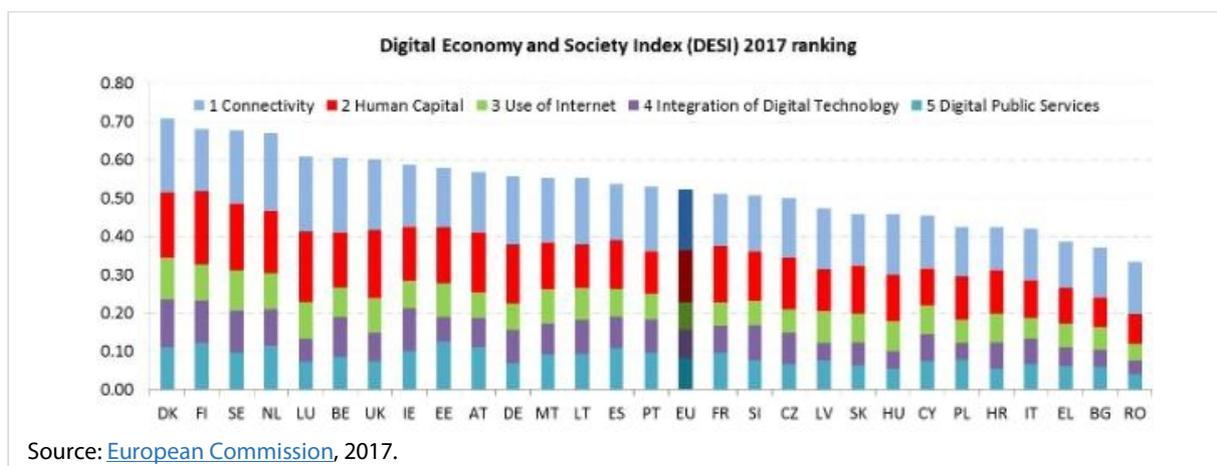[The role of eGovernment in deepening the Single Market](#)
Briefing by Marcin Szczepanski, European Parliamentary Research Service, October 2017
[Reducing costs and barriers for businesses on the Single Market](#)
Study for the IMCO Committee, April 2016

More in the Graphics Warehouse

Digital Economy and Society Index (DESI) 2017 ranking

■ 1 Connectivity ■ 2 Human Capital ■ 3 Use of Internet ■ 4 Integration of Digital Technology ■ 5 Digital Public Services

Source: European Commission, 2017.

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