Digital Transformation

Why are we discussing this?

The EU says: "Digital technologies are changing our lives. Screen time is on the rise, as the world has to adapt to new conditions for remote working and education. We want to make sure the digital transition leaves no one behind, putting people first and creating new opportunities for business. Digital solutions are also key to fighting climate change and achieving the green transition of our economy and society."

But what do you think?

What are the key issues?

Digital Sovereignty is centred on the control of digital data, software, and hardware. Digital sovereignty is, in summary, the EU's ability to act independently in the digital world. Deepening digitisation has led to heightened concern over the level of control that non-EU companies have over digital policy and data, for example dependence on Chinese 5G digital infrastructure.

Digital Services cover a broad category of online services, from online platforms e.g. social networks, to internet infrastructure e.g. internet cables, to websites e.g. europa.eu. The EU framework for digital services was first outlined in the E-Commerce Directive in 2000. In the decades since, digital services have developed significantly.

Data protection: The EU has adopted a very stringent framework for privacy and data protection, with the General Data Protection Regulation (GDPR) at its centre, and has introduced a protective 'right to be forgotten' and rights to enhance individuals' control of their own data. The European Commission has also set out a strategy on promoting international data protection standards.

Data Economy is an integral issue for the future of EU digital policy. A data economy is a system in which data is collected and exchanged between entities. A highly developed data economy with open data affords public organisations and institutions the ability to innovate. It is integral, however, that this data is re-used in a way that is consistent with EU data protection rules and protects the rights of EU citizens.

Artificial Intelligence (AI) is a transformative global technology applicable to all policy areas. AI is capable of creating an innovative, competitive and efficient economy, of revolutionising human health, of radically reforming industry, for example. Despite its potential, AI poses risks; risks to the digital economy, risks to digital privacy, to fundamental rights etc.

Cybersecurity is an emerging policy issue for the EU. Cybercrime and cyber-attacks are common and are expected to intensify as digitisation develops further. Cybersecurity refers to the measures implemented in order to protect information systems from unauthorised access and use. Cybersecurity measures protect personal data, information networks and information infrastructures.

Disinformation is 'verifiably false or misleading information created, presented and disseminated for economic gain or to intentionally deceive the public'. Misinformation is verifiably false information that is spread without the

intention to mislead, and often shared because the user believes it to be true. The spread of both disinformation and misinformation can have a range of consequences, such as threatening our democracies, polarising debates, and putting the health, security and environment of EU citizens at risk.

Connectivity means giving people access to digital technology. The EU has set objectives for connectivity for 2025, including: gigabit connectivity for all of the main socio-economic drivers; uninterrupted 5G coverage for all urban areas and major terrestrial transport paths; access to connectivity offering at least 100 Mbps for all European households.

What has the EU been doing?

The development of EU digital policy originated with the 2000 Lisbon Agenda, intended to develop the economy through information and technological innovation. This emphasis on a knowledge-based economy prompted investment in internet infrastructure and in a catalogue of initiatives.

In 2010, the Digital Agenda for Europe (DAE) ensured that digitisation was an central element of EU policy. The initiative included a collection of proposals intended to facilitate a fair and open digital environment. On digital society, the Agenda promised to promote digital accessibility and inclusion while reinforcing rules on data protection.

In 2015 a Digital Single Market (DSM) Strategy was introduced. It was designed to improve access to digital services, to create the conditions for digital services to develop, and to maximise the digital economy.

The introduction of the General Data Protection Regulation (GDPR) represented a further development in EU digital policy, particularly in terms of privacy. While data protection was an existing feature of EU policy (in 1995 the Commission adopted the European Data Protection Directive) GDPR completely reformed data protection policy. GDPR regulates the processing of personal data and gives digital users considerable control over personal data. It also enables data-driven innovation in the EU by harmonising data protection rules and regulations. GDPR significantly influenced global norms on data protection. A 2019 Reuters' article reports that GDPR is "making waves worldwide" and is "fundamentally changing the way data are handled."

An additional consumer-oriented digital policy development was the introduction of the Web Accessibility Directive in 2016. Designed to promote internet accessibility and inclusivity, the Directive obliges public-sector platforms to adhere to strict public accessibility standards.

Looking to the Future

In 2016 Klaus Schwab, founder and executive chairman of the World Economic Forum, wrote that: "We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before."

EU digital policy is expanding at an exponential rate. The relevance of digitisation to all policy areas is reflected in emerging EU digital policy. Initiated in 2019, the Commission's A Europe Fit for the Digital Age programme provides the framework for Europe's digital future.

The Digital Europe Programme (DEP) is intended to further develop the digital capacity of the EU and to facilitate the deployment of digital technologies. It will fund initiatives in supercomputing, artificial intelligence, cybersecurity, digital skills and digital technologies. A central component of the DEP is investment in the development of digital specialists to promote specialised digital skills programmes.

Digital accessibility is an enduring element of EU digital policy as a 'digital society' depends on high levels of digital literacy. The Digital Education Action Plan - presented in 2020 - is designed to develop a high-performing digital education system. Intended to establish the EU as a driver in digital learning, the initiative will ensure that the EU has a highly developed workforce capable of operating confidently in a highly digitised environment.

Innovation in EU industry is dependent on digitisation. In 2016, the Digitising European Industry (DEI) programme provided a pathway for the digitisation of EU industry. Introduced in 2020, the EU's Industrial Strategy is intended to expand on the DEI programme by deepening the Digital Single Market (DSM), further developing digital skills, forging industrial alliances and accelerating the green and digital transitions.

An integral component of the Commission's digital policy programme is the Digital Services Act (DSA). Introduced in order to further regulate the obligations of digital services and to foster competitiveness in the digital space, the DSA is designed to protect EU consumers and to provide a robust framework for the operation of online platforms.

A related piece of planned digital policy legislation is the Digital Markets Act (DMA). Designed to ensure a higher degree of competition in the digital market, the DMA intends to regulate 'gatekeeper platforms', i.e. online platforms with control of 'platform services' e.g. search engines. The purpose of the DMA is to prevent 'gatekeeper' platforms from excluding competition – especially small and medium-sized enterprises (SMEs) in the digital economy.

Adopted in 2020, the European Strategy for Data is intended to advance the EU data economy by introducing a framework for data access and use. A central component of this framework is the Data Governance Act. Designed to promote data sharing, the Act will facilitate the development of trustworthy data-sharing systems which are expected to promote data access and use, expanding competitiveness and innovation.

Artificial Intelligence (AI) is a further development in Europe's digital space. EU digital policy on AI centres on three objectives; the first objective is to promote AI in the public and private sectors; the second objective is to prepare for the social shift AI is expected to introduce; the third objective is to provide an ethical legal framework for AI.

In 2020, the Commission introduced the Cybersecurity Strategy. Intended to protect EU citizens and companies from cyber-attacks, the Strategy is set to enhance cyber resilience, combat cybercrime, cyber diplomacy, reinforce cyber defence and promote research and innovation on cybersecurity.

The EU has also been active in the area of disinformation. In December 2018, the Action Plan on Disinformation was adopted by the Commission and the High Representative for Foreign and Security Policy. As well as focusing on disinformation within the Union, it looks beyond the EU borders towards disinformation arising from the EU's strategic rivals (particularly Russia) and other malicious actors. It provides for the EU to improve capabilities to detect, address and expose disinformation; strengthen joint responses; mobilise the private sector; and raise public awareness and societal resilience. Launched in December 2020, the Commission's European Democracy Action Plan places countering disinformation at the centre of future efforts to promote free and fair elections, strengthen media freedom and pluralism.

This digital transformation comes with challenges. The World Economic Forum (WEF) has said that by 2030, 1.2 billion jobs around the world will be changed due to automation in the digital transformation. The OECD reports that these are people who already are likely to suffer higher level of unemployment, work around eight hours less per week, and have lower hourly earnings compared to people jobs that are of low risk to the digital transformation.

A further structural challenge is the availability of infrastructure. In December 2018, the European Court of Auditors published a Special Report on broadband available across the EU. It found that the targets of the Europe 2020 strategy

of 50% broadband coverage of 30Mbps in rural areas and 50% national uptake of high-speed broadband of 100Mbps had not been achieved. Fourteen Member States had not reached 50% of rural broadband coverage, with the EU average at 48%. No Member State had reached 50% of high-speed broadband, with the EU average just 15%. Ireland had 82% coverage (5th in the EU27) in rural areas target.

Questions for consideration?

1. Will EU digital policy have an appreciable effect on your work or home life?
2. Are there any digital policy issues that you feel are particularly important at a national or EU-level?
3. How can ensure people are not left behind in a digital transformation?
4. Are there any areas related to the digital transformation that concern you particularly?
5. What can be done to stop the spread of disinformation and misinformation?
6. How can we use technology to stimulate economic recovery and/or combat climate change?

More information

Listen:

1. "EU Policies – Delivering For Citizens: Digital Transformation". This short podcast from the European Parliamentary Research Service Blog explores some of the main issues of the EU is doing on the digital transformation from 2019, available here.
2. "Port of Rotterdam: The Digital Transformation of Europe's Largest Port". The US-based Environmental Systems Research Institute have a podcast episode about the Port of Rotterdam's digital transformation from 2019, and is available here.
3. "What is Digital Transformation". The Digital Marketing Institute, which has an office in Dublin, has a podcast episode on exploring what the digital transformation is from August 2020, available here.

Read:

1. "Challenges to effective EU cybersecurity policy". This is a 2019 report from the European Court of Auditors and is available here.
2. "Digital sovereignty for Europe". This 2020 report is from the European Parliamentary Research Service and is available here.
3. "Seven Technologies Remaking the World". The Massachusetts Institute of Technology's 'Sloan Management Review' highlight here new technologies such as 3D printing to genetic engineering.

Watch:

1. "New Digital Strategy". This short 2020 video from the European Commission outlines the opportunities and challenges that come with the digital transformation, is available here.
2. "The EU's Single Market: Digital enough to compete globally?". This short 2019 video from EurActiv looks at what can be done to unlock potentials in the digital industries of the EU's Single Market, is available here.
3. "Europe in a digital world: EU Commissioner Mariya Gabriel". Former European Commissioner from Bulgaria with the portfolio for Digital Economy and Society is interviewed on France24 here.