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*The EU's digital strategy seeks to make digital transformation work for people and businesses. To that end, the EU intends to strengthen Europe's capacities in new digital technologies and open new opportunities for businesses and consumers, including in the areas of artificial intelligence (AI) and the platform economy, while also achieving technological sovereignty in key technological areas and promoting its digital standards internationally.*

*While new technologies have the potential to benefit the economy and society, they also come with new risks. Creating a safe and secure online environment for Europeans is key. Against this backdrop, in recent years the EU has passed a range of legislative acts to build a new framework for online gatekeepers, and improve data governance. Building a human-centric approach to AI, protecting vulnerable internet users and fighting disinformation online represent serious challenges, as Europe enters a period of elections.*

### Artificial intelligence, democracy and elections

*Briefing by Michael Adam with Clotilde Hocquard, EPRS, September 2023*

AI is an opportunity to improve the democratic process in our societies. For example, it can help citizens to gain a better understanding of politics and engage more easily in democratic debate. This emerging technology, however also poses multiple risks to democracies, as it is a powerful tool for disinformation and misinformation, both of which can trigger tensions resulting in election-related conflict and even violence. The EU is currently adapting its legal framework to address the dangers that come with AI and to promote the use of trustworthy, transparent and accountable AI systems.

### Defending the EU's democratic information sphere – Future Shocks 2023

*EPRS blogpost by Naja Bentzen, August 2023*

The democratic information sphere has undergone rapid and profound change over the course of the past two decades. This complex, multi-layered ecosystem is shaped and impacted by a vast number of strategic and systemic actors, where interests sometimes dominate over democratic values and freedoms. Geostrategic threats include foreign information manipulation and interference, seeking to manipulate political views and preferences through deceptive information. Undermining the integrity of elections – and thereby public trust in the electoral system and democratic institutions – erodes democracy as a system. Distortion of the information space through the filtering, ranking and recommendation of content and interactions (for example, via newsfeed algorithms, de/prioritisation or removal/amplification of content and accounts) is one example of a systemic threat. Interlinked with systemic and strategic threats, societal weaknesses increase vulnerability to manipulative information, which uses emotional content to trigger and maintain engagement; people are more prone to deceptive messages if they feel that the system is not working for them.

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## Artificial intelligence act

*Briefing by Tambiama Madiega, EPRS, June 2023*

In April 2021, the European Commission tabled a proposal for an EU regulatory framework on artificial intelligence (AI). The draft AI act is the first ever attempt to enact a horizontal regulation on AI. The proposed legal framework focuses on the specific utilisation of AI systems and associated risks. The Commission is proposing to establish a technology-neutral definition of AI systems in EU law and to lay down a classification for AI systems with different requirements and obligations tailored on a 'risk-based approach'. The EU lawmakers have begun negotiations to finalise the new legislation, with substantial amendments to the Commission's proposal, including revising the definition of AI systems, broadening the list of prohibited AI systems, and imposing obligations on general purpose AI and generative AI models such as ChatGPT.

## The data act

*Briefing by Tambiama Madiega, EPRS, May 2023*

On 23 February 2022, the European Commission unveiled a proposal for an EU regulation – the data act – laying down harmonised rules on fair access to and use of data. The aim is to remove barriers to consumers' and businesses' access to data, in a context in which the volume of data generated by humans and machines is increasing exponentially and becoming a critical factor for innovation by businesses (e.g. algorithm training) and by public authorities (e.g. shaping of smart cities). Following trilogue negotiations, Council and Parliament reached a political agreement on the final text in June 2023.

## General-purpose artificial intelligence

*'At a glance' note by Tambiama Madiega, EPRS, March 2023*

General-purpose artificial intelligence (AI) technologies, such as ChatGPT, are quickly transforming the way AI systems are built and deployed. While these technologies are expected to bring huge benefits in the coming years, spurring innovation in many sectors, their disruptive nature raises policy questions around privacy and intellectual property rights, liability and accountability, and concerns about their potential to spread disinformation and misinformation. EU lawmakers need to strike a delicate balance between fostering the deployment of these technologies while making sure adequate safeguards are in place.

## EU-US Trade and Technology Council: Modest progress in a challenging context

*Briefing by Marcin Szczepanski, EPRS, February 2023*

The European Union-United States Trade and Technology Council (TTC) was launched during a June 2021 summit. The aim was to revitalise transatlantic cooperation, boost bilateral trade and investment, and strengthen the parties' technological and industrial leadership, while preserving shared values. These ministerial meetings steer cooperation within the TTC and guide its 10 working groups on technology standards, secure supply chains, tech regulation, global trade challenges, climate and green technologies, investment screening and export controls. So far, the TTC's work has focused mostly on information sharing, joint mapping, defining best practice, identifying risks and exploring options for closer cooperation. The third meeting made progress on artificial intelligence standards, global connectivity, transparency of semiconductor supply chains, meaningful dialogue on forced labour and due diligence, sustainable trade, post quantum encryption and China's non-market practices.

## Digital rights and principles

*'At a glance' note by Polona Car, EPRS, January 2023*

As digital tools and services are now integral to daily life, the protection of human rights in the digital context has become a top priority, and international organisations are stepping-up their efforts to that end. One important EU contribution has been the adoption of the European Declaration on Digital Rights and Principles.

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## Digital services act

*Briefing by Tambiama Madiega, EPRS, November 2022*

EU lawmakers have agreed on the digital services act (DSA), which aims to ensure fairness, trust and safety in the digital environment. The regulation entered into force in November 2022. The DSA puts in place a framework of layered responsibilities targeted at different types of online intermediary services, including network infrastructure services (e.g. cloud and webhosting), online platform services (e.g. app stores and social media platforms), and services provided by very large online platforms and very large online search engines that pose particular risks in the dissemination of illegal content and societal harms. All providers offering such online intermediary services in the EU will have to comply with a range of obligations to ensure transparency, accountability and responsibility for their actions according to their role, size and impact in the online ecosystem.

## Digital Markets Act

*Briefing by Tambiama Madiega, EPRS, November 2022*

In September 2022, EU lawmakers signed a regulation on contestable and fair markets in the digital sector, otherwise referred to as the Digital Markets Act (DMA). The DMA entered into force on 1 November 2022. The new legislation lays down harmonised rules aimed at regulating the behaviour of digital platforms acting as gatekeepers between business users and their customers in the European Union (EU). This approach entails a shift from ex-post anti-trust intervention to ex-ante regulation, and enshrines a set of ex-ante rules within EU law that will radically change how large digital platforms are allowed to operate in the EU.

## Digital Markets Act: Application timeline

*'At a glance' note by Tambiama Madiega, EPRS, November 2022*

The Digital Markets Act (DMA) entered into force on 1 November 2022. Most of the act's provisions will apply as of 2 May 2023, when the gatekeeper designation procedure will start.

## Digital Services Act: Application timeline

*'At a glance' note by Tambiama Madiega, EPRS, November 2022*

The Digital Services Act (DSA) entered into force on 16 November 2022. Operators designated as very large online platforms (VLOPs) and very large online search engines (VLOSEs) will have to comply with stricter obligations already from mid-2023. The European Commission (EC) will adopt implementing and delegating acts framing the application of the DSA.

## Artificial intelligence act and regulatory sandboxes

*Briefing by Tambiama Madiega, EPRS, June 2022*

The artificial intelligence act envisages setting up coordinated AI 'regulatory sandboxes' to foster innovation in artificial intelligence (AI) across the EU. A regulatory sandbox is a tool allowing businesses to explore and experiment with new and innovative products, services or businesses under a regulator's supervision. It provides innovators with incentives to test their innovations in a controlled environment, allows regulators to better understand the technology, and fosters consumer choice in the long run. However, regulatory sandboxes also come with a risk of being misused or abused, and need the appropriate legal framework to succeed.

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## Digital transformation – Cost of Non-Europe

Study by Meenakshi Fernandes, Lenka Jancova and Niombo Lomba, EPRS, January 2022

Europe is in the midst of a digital revolution that is transforming our approach to work and communication and building significant potential to improve living standards and economic output. With the potential to drastically change the economy and society, digital transformation can bring both promising developments and challenges. There is wide variation in advances in digital transformation both within the European Union and between Member States. This 'cost of non-Europe' study analyses the status quo in digital transformation in the European Union and identifies gaps and barriers hampering the full potential of the digital transformation. The estimated cost of non-Europe was already substantial in 2021, at €315 billion, and was expected to continue to grow increasingly over time, reaching up to €1.3 trillion by 2033. The study proceeds to identify three broad policy options for EU action that would, to some extent, address the identified gaps and barriers and thus generate benefits for businesses and society.

## Regulating facial recognition in the EU

In-depth analysis by Tambiama Madiega and Hendrik Alexander Mildebrath, EPRS, September 2021

The publication explains the state of play and further highlights the concerns raised by the use and the potential impacts on people's fundamental rights of facial recognition technologies. Against this background, the paper explores the current EU legal framework applicable to facial recognition and examines in depth the recent proposals for regulating facial recognition technologies at EU level.

## Digital sovereignty for Europe

Briefing by Tambiama Madiega, EPRS, July 2020

There is growing concern that the citizens, businesses and Member States of the European Union are gradually losing control over their data, over their capacity for innovation, and over their ability to shape and enforce legislation in the digital environment. Against this background, support has been growing for a new policy approach to enhance Europe's strategic autonomy in the digital field. This would require the Union to update and adapt a number of its current legal, regulatory and financial instruments, and to promote more actively European values and principles in areas such as data protection, cybersecurity and ethically designed artificial intelligence. This paper explains the context of the emerging quest for 'digital sovereignty'.

## Reform of the EU liability regime for online intermediaries: Background on the forthcoming digital services act

In-depth analysis by Tambiama Madiega, EPRS, April 2020

The European Union is expected to revise the liability regime for online intermediaries in the forthcoming digital services act. This publication describes the current liability regime set out under the 2000 e-Commerce Directive, highlights the implementation gaps that have been identified, and presents the main proposals for reform that have been discussed so far. Technology has evolved in the last 20 years and new societal challenges, such as the increasing use of platforms to access and distribute products, services and information, have arisen. As a result, policy-makers will have to address a range of questions, including the extension of the scope of the liability regime and the revision of the liability exemption conditions.

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