



Governing Digital Ecosystems in the EU: A Coordinated Regulatory Approach¹

Kitti Mezei

Hungarian Academy of Sciences, Centre for Social Sciences, Institute for Legal Studies, Hungary

ORCID: <https://orcid.org/0000-0002-6497-1186>

E-mail: mezei.kitti@tk.hu

Abstract

This paper analyses the EU’s digital regulatory framework as a response to the ecosystem-based nature of digital markets, focusing on the GDPR, DSA, DMA, and AI Act. It argues that these instruments form a coordinated, human-centred regulatory model addressing market power, fundamental rights, transparency, and AI-related risks through ex ante obligations. While this approach strengthens legal coherence and global norm-setting, the paper also highlights concerns regarding regulatory rigidity, compliance burdens, and the EU’s long-term technological competitiveness.

Keywords: transparency, risk-based regulation, DSA, AI Act, digital ecosystems

Received: 07.12.2025

Accepted: 19.12.2025

Published: 19.12.2025

Cite this article as:

K. Mezei, “*Governing Digital Ecosystems in the EU: A Coordinated Regulatory Approach¹*”

DOT.PL, no. 1/ 2025,
10.60097/DOTPL/215839

Corresponding author:

Kitti Mezei, Hungarian Academy of Sciences, Centre for Social Sciences, Institute for Legal Studies, Hungary

E-mail: mezei.kitti@tk.hu

Copyright:

Some rights reserved
Publisher NASK

¹ The research was conducted with the support of the János Bolyai Research Scholarship of the Hungarian Academy of Sciences.

The foundations and objectives of the European Union's digital regulatory strategy

Several mutually reinforcing factors have prompted a rethinking of the European Union's (EU) digital legal regulations in recent years. New economic and social phenomena emerging as a result of technological developments – the market dominance of global online platforms, the explosive growth of the data economy² and the spread of artificial intelligence (AI) – have raised issues for which traditional legal frameworks did not provide adequate solutions.³ However, the need for regulation did not arise solely from a market or competition law perspective; the need to enforce fundamental rights⁴ also played a central role. Data protection, respect for privacy, security guarantees, and the protection of user rights are all factors that require increased attention in the digital space. In addition, there are political and economic motivations behind the creation of new legislation on digitalisation. These reflect the EU's efforts to strengthen the single market, as differing regulatory practices among Member States have hampered legal certainty and fair competition between businesses. At the same time, the promotion of technological autonomy and sovereignty⁵ has emerged as a strategic goal, the essence of which is to reduce external technological dependence, primarily on the United States. For this reason, one of the EU's strategic objectives is to establish a *Digital Single Market*,⁶ which aims to break down digital barriers between Member States and promote the smooth functioning of online services. The initiative aims to make it easier for both users and businesses to access digital goods and services, while providing a unified framework for the development of the digital economy, network security, and innovation support.

² For more details, see Matthew HINDMAN, *The Internet Trap: How the Digital Economy Builds Monopolies and Undermines Democracy*, ORAC Publishing, Budapest, 2023.

³ Bertin MARTENS: An Economic Perspective on Data and Platform Market Power. JRC (Joint Research Centre), European Commission, 2021.

⁴ Giovanni DE GREGORIO, *Digital Constitutionalism in Europe: Reframing Rights and Powers in the Algorithmic Society*, Cambridge University Press, 2022.

⁵ Technological sovereignty has become one of the EU's central policy objectives and plays a decisive role in the EU's technological strategy, particularly in the regulation of AI. See Marton VARJU, 'Technology Sovereignty and AI Regulation in the EU: Regulatory Strategy and the Paradox of Choice', In: Marton VARJU – Kitti MEZEI (eds.): *The Challenges of Artificial Intelligence for Law in Europe*. 2025, pp. 65-84., and Luciano FLORIDI: The Fight for Digital Sovereignty: What It Is, and Why It Matters, Especially for the EU. *Philosophy & Technology*, Volume 33, Issue 3. 2020, 369–378.

⁶ European Commission (2015): A Digital Single Market Strategy for Europe. COM(2015) 192 final.

This paper proceeds from the hypothesis that the European Union’s recent digital legislation constitutes a coherent and coordinated regulatory response to the ecosystem-based structure of digital markets, rather than a collection of fragmented, sector-specific interventions. It assumes that the EU legislator has deliberately moved beyond traditional competition and sectoral regulation in order to address systemic risks arising from data-driven dominance, network effects, and the embedded use of AI within digital ecosystems. The primary objective of the paper is to analyse how the GDPR, DSA, DMA, and AI Act collectively shape the governance of digital ecosystems in the EU. More specifically, it aims (i) to conceptualise digital ecosystems as a regulatory object, (ii) to examine the common principles and regulatory techniques underpinning these instruments—particularly the human-centred and ex ante risk-based approach—and (iii) to assess the strengths and limitations of this coordinated regulatory model in light of innovation dynamics, compliance burdens, and global competitiveness.

Given the global nature of digitalisation, differences between national regulations would constitute an obstacle, which is why the EU has opted for regulation by means of directives in the field of digitalisation.⁷ Unlike directives, regulations are directly applicable in Member States, thus ensuring legal certainty and the functioning of the single market. The best-known examples include the General Data Protection Regulation (GDPR),⁸ the Digital Services Act (DSA),⁹ the Digital Markets Act (DMA),¹⁰ and the Artificial Intelligence Act (AI Act).¹¹ Together, these define the basic framework for the functioning of the digital space: they harmonise data protection rules, establish the responsibilities of online platforms,

⁷ The literature describes this trend as the ‘actification’ of EU digital law, i.e. regulation taking the form of directly applicable regulations (‘Acts’) instead of the previous directives. Vagelis PAPA KONSTANINOU – Paul DE HERT, *The Regulation of Digital Technologies in the EU: Act-ification, GDPR Mimesis, and EU Law Brutality at Play*. Routledge, London–New York, 2024.

⁸ Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

⁹ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on the Digital Single Market and amending Directive 2000/31/EC (Digital Services Regulation).

¹⁰ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on competitive and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).

¹¹ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, 168/2013/EU, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144, and amending Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Regulation on artificial intelligence)

and regulate the market behaviour of tech giants and the use of AI. Through regulation-level legislation, the EU not only strengthens the integrity of the internal market but also aims to develop a competitive and value-based regulatory model at the global level.

The EU's regulatory strategy aims to respond to the challenges posed by digitalisation and technological development by creating harmonised and uniform standards. As the primary instrument of EU legislation in this area is the regulation, the rules are directly applicable in the Member States. The regulatory concept focuses on European values and the protection of citizens, while promoting the process of digital transformation. Although one phase of this was already implemented in the period 2010-2020, the Digital Decade 2030 programme¹² sets out new objectives for the current decade: strategic gaps and high-risk dependencies must be addressed, supply and cybersecurity risks must be mitigated, and digital transformation must be facilitated. The programme also emphasises the regulation of data sharing and the protection of personal data in the context of new technologies. The EU's digital policy is therefore based on principles that are reflected in the regulations and take the form of specific obligations. These include, above all, a human-centred approach, which ensures that technological development prioritises the rights and interests of individuals over economic interests. The preamble to the AI Act explicitly states that the regulation of technology is based on the principle of 'human-centred and trustworthy AI'. The regulatory logic of the DSA and DMA is also in line with this: the protection of user rights, transparency, and security are also manifestations of this human-centred approach. Other key objectives include strengthening security, with a particular focus on cybersecurity and data protection, and developing sustainable digital ecosystems that promote economic growth in an environmentally and socially responsible manner. The aim of the EU's digital regulatory efforts is not to stifle innovation, but to encourage legislation to ensure that businesses use the latest technologies, such as AI, safely and transparently. One of the greatest added values of this regulatory approach is that it does not merely enforce economic and competition law considerations, but also places particular emphasis on risk management and the protection of fundamental rights. A uniform and clear legal framework contributes to strengthening trust between market

¹² Europe's digital future. <https://www.consilium.europa.eu/hu/policies/a-digital-future-for-europe/>

players and users and ensuring their safety, which in the long term promotes the sustainable development of innovation.

In addition, through the so-called *Brussels effect*,¹³ the EU can act as a norm-setting power at the global level: regulations created for the internal market often function as international benchmarks, so the EU not only protects the interests of its own citizens, but also has a significant impact on the international development of digital technologies. At the same time, this regulatory solution also has its risks. One of the most significant problems is that rapidly obsolescent rules struggle to keep up with the dynamics of technological development, which can limit the flexibility of innovation. In addition, significant administrative burdens and compliance obligations can hit small and medium-sized enterprises particularly hard, putting them at a competitive disadvantage in global or even domestic markets. Finally, the geopolitical factor cannot be ignored: with the technological superiority of the United States and China, there is a risk that the EU will emerge as a regulatory power rather than a technological leader, which could lead to a decline in competitiveness in the longer term.¹⁴

Digital ecosystems

The common logic behind the EU's regulatory initiatives can be seen in the fact that they all reflect the specific functioning of digital ecosystems. In these systems, market and technological processes do not take place in separate sectors, but are closely intertwined and organised according to network logic. EU regulations therefore do not seek to address isolated problems, but rather to regulate a complex environment that is vividly illustrated by the operations of global technology companies. For example, the ecosystem-based strategies of Amazon, Google and Meta are simultaneously transforming the data economy, the ways in which AI is used and the structure of online platforms, clearly demonstrating that the challenges of digitalisation can only be addressed within a comprehensive and coordinated regulatory framework.

Although there is no uniform definition of the concept of a digital ecosystem, the literature typically starts from the analogy of a biological ecosystem: the interactions between

¹³ This issue is discussed in detail in Anu BRADFORD, *The Brussels Effect: How the European Union Rules the World*, Oxford University Press, 2020.

¹⁴ Giovanni De GREGORIO, 'What is digital constitutionalism? A view from Europe', November 2022, <https://www.ippi.org.il/digital-constitutionalism-in-europe/>

participants, their interdependent roles and networked collaborations form an integrated system.¹⁵ This model differs fundamentally from traditional business logic: the relationships between service providers, developers, users and devices create dynamic value based on network effects and data flows. It is no coincidence that key players in the global digital economy, such as Google and Meta, are basing their business strategies on this very model.¹⁶ The EU's regulatory efforts are driven not only by the rapid spread of individual technologies, but also by their impact on market structures. Global technology companies not only have a significant market share, but have also established an ecosystem-based dominance in which their advantage stems not only from their current market share, but also from the fact that market and technological structures,¹⁷ This dominance stems from the specific characteristics of ecosystem strategies: self-reinforcing network effects, asymmetric access to data and the functioning of algorithms create barriers to entry that competitors find difficult to overcome.¹⁸

¹⁵ Sergey Yevgenievich BARYKIN et al., 'Economics of Digital Ecosystems', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 6, No. 4, 2020, 3–4. <https://doi.org/10.3390/joitmc6040124>

¹⁶ Jacques CRÉMER – Yves-Alexandre DE MONTJOYE – Heike SCHWEITZER, *Competition Policy for the Digital Era*, Report for the European Commission, 2019.

¹⁷ Lina M. KHAN: *Amazon's Antitrust Paradox*. Yale Law Journal, Vol. 126, No. 3, 2017, 710–805. Khan points out that Amazon's dominance stems not only from its market share, but also from its ecosystem-based embeddedness, which provides self-sustaining advantages. This is also discussed by Martin KENNEY – John ZYSMAN: *The Platform Economy: Restructuring the Space of Capitalist Accumulation*. Cambridge Journal of Regions, Economy and Society, Vol. 13, No. 1, 2020, 55–76.

¹⁸ CRÉMER – DE MONTJOYE – SCHWEITZER, *ibidem*. The report highlights the market dominance created by network effects, data monopolies and ecosystem integration, which are difficult to address with traditional competition law tools.

This position was confirmed by the General Court of the European Union in the case of Google LLC and Alphabet Inc. v European Commission (T-604/18), which held that the analysis of digital markets differs from traditional competition law logic. The judgment emphasises that classic parameters such as price or market share are less decisive in the digital economy, where innovation, access to data, network effects, user behaviour and multilateral platform characteristics are much more important factors (paragraph 115). The court explicitly states that these can also be interpreted as a digital 'ecosystem': thus, in the case of a digital ecosystem that brings together and encourages interaction between service providers, customers and several categories of consumers within a platform, the goods or services that form part of the relevant markets within that ecosystem may be complementary or interconnected due to their horizontal or vertical complementarity. When considered together, these relevant markets may also have a horizontal dimension, taking into account the system that brings their components together and any competitive constraints that exist within that system or stem from other systems (paragraph 116). Therefore, the relevant markets should not be examined in isolation, but in the context of the ecosystem, as the various elements of the platform may reinforce each other's impact. The judgment also points out that, when assessing Google's economic power, competitive pressures must be examined at several levels and from several angles, taking into account both the relationships within the internal ecosystem and the pressure from external systems (paragraph 117). The court therefore recognises that digital ecosystems are complex, intertwined structures in which market power does not stem solely from market share, but also from system-level interconnections and network effects (paragraph 118). Good examples of this are the dominant players in the market. Google's search engine is not only a market-leading service, but also part of an ecosystem, which includes advertising systems, Gmail, YouTube, Google Maps, the Android operating system, and newer AI solutions such as Gemini and DeepMind developments, that continuously strengthens its dominance in digital markets. Amazon's vertically integrated operations – as a marketplace, logistics network and cloud service provider – give it a complex advantage that is supported by its recommendation systems and AI-based assistant, Alexa, making

it difficult for its competitors to catch up. Meta (Facebook, Instagram, WhatsApp) is strengthening itself through user and data integration between social networks, while increasingly integrating generative AI – for example, in its content recommendation systems – thereby further deepening the market embeddedness of its ecosystem. This is another good example of how AI fits organically into the functioning of digital ecosystems, as it is one of the most important technological drivers today. It plays an essential role in data processing, the automation of decision-making processes and the personalisation of services. Global platform companies maintain their ecosystem-based dominance largely through these systems: their algorithms improve the user experience, amplify network effects, and facilitate the economic exploitation of data, reinforcing the ‘winner-takes-most’ dynamics characteristic of the platform economy.¹⁹ AI is therefore not just a technological component, but a fundamental structural element within digital ecosystems. At the same time, this deep embedding poses significant regulatory risks: the opacity of algorithms, the risk of distortionary effects, the mass processing of personal data, and increasing market concentration all generate systemic problems.

The rise of large technology companies, therefore, raises fundamental regulatory issues. EU legislation has recognised that the concentrated market power of digital ecosystems can increase the vulnerability of users and consumers, that the opaque processing of personal data can violate fundamental rights, and that it can jeopardise fair competition for small and medium-sized enterprises. These problems justified the creation of a unified regulatory framework, the first milestone of which was the GDPR, which is also a model piece of legislation because it influenced the logic of subsequent digital regulations (DSA, DMA, AI Act). EU legislation therefore seeks to address the regulation of digital ecosystems within a unified framework, with normative solutions that ensure a human-centred approach, transparency and security, while supporting innovation and mitigating social, fundamental rights and competition risks. From a

¹⁹ See Geoffrey G. Parker, Marshall W. VAN ALYSTYNE, and Sangeet Paul CHOUDARY, *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. New York, W.W. Norton, 2016, and Martin KENNEY and John ZYSMAN, The Platform Economy, Restructuring the Space of Capitalist Accumulation. *Cambridge Journal of Regions, Economy and Society*, 13 (1), 2020, pp. 55–76.

critical perspective, however, it is questionable whether these regulatory tools are capable of truly capturing and addressing the dynamic nature of digital ecosystems in the long term, or whether they offer fragmented and reactive responses.

EU legislative responses to digital ecosystems

The most important EU digital regulations – the GDPR, the DSA, the DMA and the AI Act – share several common features, suggesting that the legislator intends to create a coherent and coordinated regulatory ecosystem. Although at first glance these appear to be different areas of regulation, for online service providers operating or seeking to operate in digital ecosystems, these regulations together define the framework for lawful operation. It is therefore justified to examine the regulations not only individually but also in context, particularly in light of those solutions that specifically seek to shape the operation of these service providers. This approach is reinforced by the recognition, also emphasised in the literature, that digital markets have specific characteristics – such as network effects arising from ecosystem-based operation – to which the instruments of a single branch of law alone do not provide a satisfactory response. The EU has therefore ultimately opted for a regulatory model that applies multiple areas of law in a coordinated manner.²⁰

Although these norms formally cover different areas, they are all based on the fundamental values of the EU, in particular a human-centred approach, the protection of fundamental rights and ensuring fair markets. Each of the key EU digital regulations has a specific impact on the protection of fundamental rights, for example. The GDPR explicitly builds on Articles 7 and 8 of the Charter of Fundamental Rights of the European Union to guarantee the right to privacy and the protection of personal data, including restrictions on automated decision-making (Article 22). The DSA primarily affects freedom of expression and the right to information by making content moderation and algorithmic ranking on platforms more transparent, while also ensuring users' rights to

²⁰ András PÜNKÖSTY: 'Where is European platform regulation headed? – An overview of the legal incentives for platform regulation and possible developments in merger control', In Bernát TÖRÖK – Zsolt ZÓDI (eds.): *The Age of Internet Platforms*. Ludovika University Press, Budapest, 2022. p. 175.

justification and redress.²¹ The DMA contributes indirectly to the protection of fundamental rights: through its obligations on 'gatekeepers', it strengthens the rights to fair competition and consumer choice, promoting economic pluralism.²² In contrast, the AI Act explicitly bases its regulatory logic on the protection of fundamental rights: it prohibits manipulative or discriminatory practices and sets strict requirements for high-risk AI systems. A central element of these requirements is transparency and ensuring the quality of training data sets, with the aim of avoiding discrimination and guaranteeing equal treatment.²³ In his monograph,²⁴ Zsolt Zódi already refers to platform law as a separate area of law. According to his interpretation, the DSA and other EU digital regulations (DMA, AI Act) do not simply aim to regulate the market, but create a new legal regime that is specifically tailored to the specific functioning of online platforms. This platform law as an independent discipline lies at the intersection of traditional areas of law (such as competition law, consumer protection, data protection, media regulation),²⁵ but also goes beyond them, as it addresses the risks arising from the functioning of digital ecosystems in an integrated framework.

One of the most important common points in EU regulation on digitalisation is the strengthening of transparency and reporting obligations. The DSA requires greater transparency in the functioning of algorithms, the DMA makes regular data reporting mandatory for gatekeepers, the GDPR emphasises detailed data processing information, while the AI Act requires, in particular, the 'explainability' and traceability of high-risk AI systems, as well as the preparation of detailed technical documentation

²¹ According to the authors, the DSA is not merely a piece of technology regulation, but has digital 'constitutional' significance in the protection of fundamental rights: Natali Helberger – João Quaintas, The Digital Services Act and the Digital Constitution of Europe. *Journal of Media Law*, Vol. 13, No. 1, 2021. pp.1–20.

²² See Philipp HACKER – Johann CORDES – Janina ROCHON, Regulating Gatekeeper Artificial Intelligence and Data: Transparency, Access and Fairness under the Digital Markets Act, the General Data Protection Regulation and Beyond, *European Journal of Risk Regulation*, 2024/15(1), pp. 49–86.

²³ The recitals of the referenced regulations repeatedly refer to the protection of users, the protection of fundamental rights, transparency, and provisions aimed at reducing risks.

²⁴ Zsolt ZÓDI: *Platform Law*. Ludovika University Press, 2023.

²⁵ For more information, see Kelemen Bence KIS – Balázs HOHMANN, Is There Anything New Under the Sun? A Glance at the Digital Services Act and the Digital Markets Act from the Perspective of Digitalisation in the EU, *Croatian Yearbook of European Law and Policy*. Vol. 19, No. 1. <https://doi.org/10.3935/cyelp.19.2023.542> and Gergely GOSZTONYI – Ewa Galewska – Andrej Školkay, Challenges of Monitoring Obligations in the European Union's Digital Services Act. *ELTE Law Journal*. 2024/1. <https://doi.org/10.54148/ELTELJ.2024.1.45>, András TÓTH: European regulation of online platforms. *In Medias Res*. 2022/ 2., Klára GELLÉN, The modern business marketplace – Regulation of online platforms in the European Union. *Economy and Law*, 2020/11-12. pp. 16-19.

to facilitate auditing and *conformity assessment* procedures.²⁶

Another common regulatory technique is the *ex ante* risk minimisation approach. Due to the dynamic nature of digital ecosystems, regulation cannot be satisfied with mere *ex post* sanctions, but imposes prior compliance obligations on service providers.²⁷ These include, for example, risk assessments, impact assessments and internal compliance mechanisms designed to prevent harmful effects.²⁸ This logic is similar to the regulatory philosophy of other high-risk sectors, such as financial or environmental law. This is not only a legal technique, but also aims to create a culture of compliance (*compliance by design*) in digital ecosystems.²⁹

Concluding remarks

This paper examines the European Union’s digital regulatory framework as a coordinated response to the ecosystem-based structure of contemporary digital markets. Focusing on the GDPR, DSA, DMA, and AI Act, it argues that EU digital regulation reflects a unified, human-centred approach that addresses market power, fundamental rights protection, transparency, and systemic AI-related risks through *ex ante* obligations. By conceptualising large platform operators as digital ecosystems rather than isolated market actors, the paper demonstrates why traditional competition and regulatory tools are insufficient and how EU law has adapted to network effects, data-driven dominance, and algorithmic governance. While the EU’s model enhances legal coherence and positions the Union as a global norm-setter through the Brussels effect, the paper also highlights key challenges, including regulatory rigidity, compliance burdens—particularly for smaller firms—and potential long-term implications for European technological competitiveness.

²⁶ Martin HUSOVEC – Josef DREXL: Digital Services Act: Towards a More Transparent Digital Future? *Journal of European Consumer and Market Law*, Vol. 12, Issue 5, 2023, 190–197., and Michael Veale – Frederik ZUIDERVEEN BORGESIU, Demystifying the Draft EU Artificial Intelligence Act – Analysing the good, the bad, and the unclear elements of the proposed approach. *Computer Law Review International*, 22(4), 2021, pp. 97–112.

²⁷ Zsolt ZÓDI: The unsolvable dilemmas of platform regulation. In: Bernát TÖRÖK – Zsolt ZÓDI (eds.): *Digitalisation in society – Studies on the social and legal impacts of new technologies*. Budapest, Ludovika University Press, 2023. p. 81.

²⁸ Philipp HACKER – Justus ROCHON, Regulating High-Risk AI under the AI Act – Risk Regulation, Compliance and Liability. *European Journal of Risk Regulation*, 13(2), 2022, pp. 1–28. <https://doi.org/10.1017/err.2022.7>

²⁹ Klejda PRIFTI et al., Regulation by Design: Features, Practices, Limitations, and Governance Implications. *Minds & Machines*, Vol. 34, 2024/1, p. 13. <https://doi.org/10.1007/s11023-024-09675-z>.

In parallel with the consolidation of the EU's digital regulatory framework, increasing attention has been paid to proposals advocating partial 'deregulation' or regulatory simplification in the digital sector. These proposals are driven primarily by external pressure from the United States and by lobbying efforts of large technology companies,³⁰ which argue that the cumulative compliance burdens EU's digital legislation risk constraining innovation and undermining global competitiveness. From this perspective, EU digital regulation is portrayed as excessively rigid and insufficiently adaptable to rapid technological change, particularly in the field of AI.

Source of funding

The research was conducted with the support of the János Bolyai Research Scholarship of the Hungarian Academy of Sciences.

References

Matthew HINDMAN, *The Internet Trap: How the Digital Economy Builds Monopolies and Undermines Democracy*, ORAC Publishing, Budapest, 2023.

Bertin MARTENS: An Economic Perspective on Data and Platform Market Power. JRC (Joint Research Centre), European Commission, 2021.

Giovanni DE GREGORIO, *Digital Constitutionalism in Europe: Reframing Rights and Powers in the Algorithmic Society*, Cambridge University Press, 2022.

Marton VARJU, 'Technology Sovereignty and AI Regulation in the EU: Regulatory Strategy and the Paradox of Choice', In: Marton VARJU – Kitti MEZEI (eds.): *The Challenges of Artificial Intelligence for Law in Europe*. 2025, pp. 65-84., and Luciano FLORIDI: The Fight for Digital Sovereignty: What It Is, and Why It Matters, Especially for the EU. *Philosophy & Technology*, Volume 33, Issue 3. 2020, pp. 369–378.

European Commission (2015): A Digital Single Market Strategy for Europe. COM(2015) 192 final.

Vagelis PAPAKONSTANINOU, Paul DE HERT, *The Regulation of Digital Technologies in the EU: Act-ification, GDPR Mimesis, and EU Law Brutality at Play*. Routledge, London–New York, 2024.

Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on the Digital Single Market and amending Directive 2000/31/EC (Digital Services Regulation).

Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on competitive and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).

³⁰ William ECHIKSON, 'Trump, tech and transatlantic Turbulence' *European view* Vol. 24. Issue 1. 2025.

Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, 168/2013/EU, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144, and amending Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Regulation on artificial intelligence)

Europe's digital future. <https://www.consilium.europa.eu/hu/policies/a-digital-future-for-europe/>

Anu BRADFORD, *The Brussels Effect: How the European Union Rules the World*, Oxford University Press, 2020.

Giovanni De GREGORIO, 'What is digital constitutionalism? A view from Europe', November 2022, <https://www.ippi.org.il/digital-constitutionalism-in-europe/>

Sergey Yevgenievich BARYKIN et al., 'Economics of Digital Ecosystems', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 6, No. 4, 2020, pp. 3–4. <https://doi.org/10.3390/joitmc6040124>

Jacques CRÉMER, Yves-Alexandre DE MONTJOYE, Heike SCHWEITZER, *Competition Policy for the Digital Era*, Report for the European Commission, 2019.

Lina M. KHAN: *Amazon's Antitrust Paradox*. Yale Law Journal, Vol. 126, No. 3, 2017, pp. 710–805.

Martin KENNEY, John ZYSMAN: *The Platform Economy: Restructuring the Space of Capitalist Accumulation*. Cambridge Journal of Regions, Economy and Society, Vol. 13, No. 1, 2020, pp. 55–76.

Geoffrey G. Parker, Marshall W. VAN ALYSTYNE, Sangeet Paul CHOUDARY, *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. New York, W.W. Norton, 2016.

András PÜNKÖSTY: 'Where is European platform regulation headed? – An overview of the legal incentives for platform regulation and possible developments in merger control', In Bernát TÖRÖK – Zsolt ZÓDI (eds.): *The Age of Internet Platforms*. Ludovika University Press, Budapest, 2022. p. 175.

Natali Helberger – João Quaintas, The Digital Services Act and the Digital Constitution of Europe. *Journal of Media Law*, Vol. 13, No. 1, 2021. pp.1–20.

Philipp HACKER – Johann CORDES – Janina ROCHON, Regulating Gatekeeper Artificial Intelligence and Data: Transparency, Access and Fairness under the Digital Markets Act, the General Data Protection Regulation and Beyond, *European Journal of Risk Regulation*, 2024/15(1), pp. 49–86.

Zsolt ZÓDI: *Platform Law*. Ludovika University Press, 2023.

Kelemen Bence KIS , Balázs HOHMANN, "Is There Anything New Under the Sun? A Glance at the Digital Services Act and the Digital Markets Act from the Perspective of Digitalisation in the EU", *Croatian Yearbook of European Law and Policy*. Vol. 19, No. 1. <https://doi.org/10.3935/cyelp.19.2023.542>

Gergely GOSZTONYI, Ewa Galewska, Andrej Školay, "Challenges of Monitoring Obligations in the European Union's Digital Services Act.", *ELTE Law Journal*. 2024/1. <https://doi.org/10.54148/ELTELJ.2024.1.45>,

András TÓTH: European regulation of online platforms. *In Medias Res*. 2022/ 2.,

Klára GELLÉN, The modern business marketplace – Regulation of online platforms in the European Union. *Economy and Law*, 2020/11-12. pp.16-19.

Martin HUSOVEC, Josef DREXL: Digital Services Act: Towards a More Transparent Digital Future? *Journal of European Consumer and Market Law*, Vol. 12, Issue 5, 2023, pp.190–197.,

Michael Veale – Frederik ZUIDERVEEN BORGESIOUS, Demystifying the Draft EU Artificial Intelligence Act – Analysing the good, the bad, and the unclear elements of the proposed approach. *Computer Law Review International*, 22(4), 2021, pp. 97–112.

Zsolt ZÓDI: The unsolvable dilemmas of platform regulation. In: Bernát TÖRÖK – Zsolt ZÓDI (eds.): *Digitalisation in society – Studies on the social and legal impacts of new technologies*. Budapest, Ludovika University Press, 2023. p. 81.

Philipp HACKER, Justus ROCHON, Regulating High-Risk AI under the AI Act – Risk Regulation, Compliance and Liability. *European Journal of Risk Regulation*, 13(2), 2022, pp. 1–28. <https://doi.org/10.1017/err.2022.7>

Klejda PRIFTI et al., Regulation by Design: Features, Practices, Limitations, and Governance Implications. *Minds & Machines*, Vol. 34, 2024/1, p. 13. <https://doi.org/10.1007/s11023-024-09675-z>

William ECHIKSON, 'Trump, tech and transatlantic Turbulence' *European view* Vol. 24. Issue 1. 2025