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SYSTEMIC INTERACTION BETWEEN THE AI ACT AND THE EU DIGITAL ACQUIS IN ARTIFICIAL INTELLIGENCE REGULATION

СИСТЕМНА ВЗАЄМОДІЯ МІЖ ЗАКОНОМ ПРО ШІ ТА ЦИФРОВИМ АКВІУСОМ ЄС У РЕГУЛЮВАННІ ШТУЧНОГО ІНТЕЛЕКТУ

The article examines the legal nature and practical significance of the systemic interaction between Regulation (EU) 2024/1689 (the AI Act) and the principal acts of the European Union's digital acquis in the field of artificial intelligence regulation. It proceeds from the premise that the AI Act, notwithstanding its central importance, cannot be understood as an autonomous or exhaustive instrument. Its normative logic, field of application and regulatory effects become fully intelligible only when analysed in conjunction with other legal acts governing personal data protection, data access and sharing, digital services, digital markets and liability. In that sense, the regulation of artificial intelligence within the European Union appears not as an isolated legislative intervention, but as a differentiated and internally connected legal order.

Particular attention is devoted to the relationship between the AI Act and the General Data Protection Regulation, the Data Governance Act, the Data Act, the Digital Services Act, the Digital Markets Act, and the liability framework now structured primarily through Directive (EU) 2024/2853 on liability for defective products, complemented by national liability regimes and general principles of EU law. It is argued that each of these instruments governs a distinct, though closely interrelated, dimension of the digital environment in which AI systems are developed, placed on the market, deployed and used.

The article further shows that the AI Act is the outcome of a longer process of policy formation within the Union, preceded by coordinated planning, ethical guidance and international standard-setting. On that basis, it is concluded that the European model of AI regulation is characterised by functional differentiation, normative interdependence and institutional complementarity. The systemic interaction of the AI Act with the acts of the EU digital acquis is therefore not merely ancillary to legislative technique, but constitutive of the Union's contemporary approach to the governance of artificial intelligence.

Key words: *artificial intelligence regulation, AI Act, EU digital acquis, General Data Protection Regulation (GDPR), data governance, digital services regulation, EU digital law, digitalisation of public administration.*

У статті досліджується правова природа та практичне значення системної взаємодії між Регламентом (ЄС) 2024/1689 (Закон про штучний інтелект) та основними актами цифрового acquis Європейського Союзу у сфері регулювання штучного інтелекту. Вона виходить з того, що Закон про штучний інтелект, незважаючи на його центральне значення, не можна розуміти як автономний або вичерпний інструмент. Його нормативна логіка, сфера застосування та регуляторний вплив стають повністю зрозумілими лише за умови аналізу разом з іншими правовими актами, що

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регулюють захист персональних даних, доступ до даних та їх обмін, цифрові послуги, цифрові ринки та відповідальність. У цьому сенсі регулювання штучного інтелекту в Європейському Союзі постає не як ізольоване законодавче втручання, а як диференційований та внутрішньо пов'язаний правовий порядок.

Особлива увага приділяється взаємозв'язку між Законом про штучний інтелект та Загальним регламентом про захист даних, Законом про управління даними, Законом про дані, Законом про цифрові послуги, Законом про цифрові ринки та системою відповідальності, яка зараз структурована переважно через Директиву (ЄС) 2024/2853 про відповідальність за дефектні продукти, доповнену національними режимами відповідальності та загальними принципами права ЄС. Стверджується, що кожен із цих інструментів регулює окремий, хоча й тісно взаємопов'язаний, вимір цифрового середовища, в якому розробляються, розміщуються на ринку, розгортаються та використовуються системи штучного інтелекту.

У статті також показано, що Закон про штучний інтелект є результатом тривалішого процесу формування політики в межах Союзу, якому передувало скоординоване планування, етичні рекомендації та встановлення міжнародних стандартів. На цій основі робиться висновок, що європейська модель регулювання ШІ характеризується функціональною диференціацією, нормативною взаємозалежністю та інституційною взаємодоповнюваністю. Системна взаємодія Закону про ШІ з актами цифрового acquis ЄС, таким чином, є не просто допоміжною для законодавчої техніки, а й складовою сучасного підходу Союзу до управління штучним інтелектом.

Ключові слова: *регулювання штучного інтелекту, Закон про штучний інтелект, цифрове законодавство ЄС, Загальний регламент про захист даних (GDPR), управління даними, регулювання цифрових послуг, цифрове право ЄС, цифровізація державного управління.*

Introduction. The increasing integration of artificial intelligence into economic, administrative and social processes has generated a corresponding demand for legal forms capable of structuring its development and use. Within the European Union, that demand has produced not only a sequence of policy documents and ethical frameworks, but also an increasingly articulated body of binding legal regulation, including rules on personal data protection, digital services, digital markets, data governance and, most recently, artificial intelligence as a distinct regulatory object [3]–[5], [12]–[17]. The adoption of the AI Act marks an important stage in this development [17]. Its significance, however, lies not merely in its enactment, but in the place it occupies within a broader and already evolving framework of European digital law [7].

For that reason, the legal analysis of the AI Act cannot be confined to its internal provisions alone. Artificial intelligence operates within a normative environment shaped by rules on personal data protection, data access and sharing, platform accountability, market contestability and liability [12]–[18]. The legal consequences of AI systems are therefore distributed across several intersecting regulatory regimes, and any attempt to assess the AI Act in isolation is liable to produce an incomplete understanding of the Union's regulatory approach [7].

The aim of this article is to analyse the systemic interaction between the AI Act and the principal acts of the European Union's digital acquis, and to determine how that interaction shapes the coherence and effectiveness of the EU regulatory framework for artificial intelligence. In particular, the study examines the relationship between the AI Act and the General Data Protection Regulation, the Data Governance Act, the Data Act, the Digital Services Act, the Digital Markets Act, and the liability dimension of EU digital law as reflected in the earlier AI liability initiative, the revised Product Liability Directive, and national liability rules [11]–[18].

The relevance of such an inquiry is both doctrinal and practical. From a doctrinal standpoint, it permits a more precise understanding of the legal nature of the AI Act and of its proper place within the architecture of EU digital regulation. From a practical standpoint, it helps to clarify which legal regimes govern different aspects of AI-related activity and how those regimes may overlap, complement one another, or leave areas of uncertainty. The article therefore proceeds on the view that artificial intelligence regulation within the Union is inherently systemic and must be analysed within the framework of the digital acquis as an integrated legal order [7]. This systemic character manifests itself not merely in the coexistence of multiple legal acts, but in the functional allocation of regulatory tasks between them, including ex ante risk regulation under the AI Act, rights-based data protection

under the GDPR, data access governance under the Data Act and the Data Governance Act, platform accountability under the Digital Services Act, market structuring under the Digital Markets Act, and ex post liability mechanisms.

The emergence of this architecture was gradual. Prior to the enactment of binding legislation on artificial intelligence as such, the institutions of the Union sought to construct a common policy vocabulary for AI. The 2018 *Coordinated Plan on Artificial Intelligence* emphasised the need for concerted action by the Union and the Member States, increased investment, exchange of best practices, and the development of a coherent strategic orientation [3]. That approach was developed further in the 2021 review, *Fostering a European Approach to Artificial Intelligence*, which linked innovation policy, regulatory preparation, institutional coordination and implementation monitoring within a single framework [4]. The *White Paper on Artificial Intelligence* added a more explicit regulatory perspective by setting out the foundations of a European approach centred on excellence and trust [5]. The legal regime later embodied in the AI Act was therefore preceded by a policy phase in which the Commission progressively articulated both the objectives and the methods of European action in this field.

The normative preconditions of the AI Act were also shaped by ethical and international standard-setting instruments. The *Ethics Guidelines for Trustworthy AI* prepared by the High-Level Expert Group on Artificial Intelligence introduced a conception of trustworthy AI as lawful, ethical and robust, and identified such requirements as human oversight, technical safety, privacy and data governance, transparency, non-discrimination, societal well-being and accountability [6]. In parallel, the OECD Recommendation on Artificial Intelligence advanced closely related principles, including respect for the rule of law, human rights, democratic values, transparency, robustness and accountability [10]. The question of standardisation likewise acquired increasing importance during the pre-legislative phase. As Ebers has shown, the emerging EU model of AI regulation was from an early stage connected with technical standards and conformity assessment as instruments of legal governance [2]. These materials are not binding in the strict legal sense, but they furnished the normative vocabulary through which subsequent legislative choices became intelligible [2], [5], [6], [10].

Within this longer trajectory, the AI Act may properly be regarded as the central regulatory instrument for artificial intelligence as such. It establishes harmonised rules for the placing on the market, putting into service and use of AI systems; prohibits certain practices deemed unacceptable; imposes obligations upon high-risk AI systems; provides transparency duties for certain categories of systems; introduces a framework for general-purpose AI models; and establishes mechanisms of governance, market surveillance and enforcement [17]. As Wagner, Borg and Runeson observe, the significance of the AI Act lies not only in its substantive prohibitions and obligations, but also in the practical challenge of navigating its compliance architecture and implementation pathways [21]. This structure reflects the distinctiveness of the AI Act within the digital acquis. Unlike the GDPR, which is concerned with the processing of personal data as such, or the Digital Services Act, which governs categories of intermediary and platform services, the AI Act treats artificial intelligence as a technological and regulatory object in its own right [12], [15], [17].

That said, the AI Act cannot be interpreted adequately unless its relation to the GDPR is made clear. The GDPR remains indispensable wherever AI systems process personal data or generate decisions producing legal or similarly significant effects upon natural persons. Article 22 GDPR provides a specific form of protection against decisions based solely on automated processing, including profiling, in circumstances where such decisions carry serious consequences [12]. As the leading commentary edited by Kuner, Bygrave and Docksey makes clear, the GDPR establishes a dense framework of principles, rights and safeguards governing the lawful processing of personal data within the Union [9]. It follows that, in matters involving algorithmic decision-making based on personal data, the AI Act does not displace the GDPR. Rather, the two acts operate at different normative levels: the GDPR supplies a rights-based regime concerned with lawful processing, data subject protection and the conditions of legitimate automation, whilst the AI Act establishes ex ante regulatory requirements for certain AI systems, including obligations of risk management, technical documentation, human oversight and transparency [9], [12], [17].

This point is particularly evident in relation to transparency and explainability. The literature has rightly cautioned against simplistic assertions that the GDPR contains a general and fully formed "right to explanation". Hacker and Passoth demonstrate that the legal position is more nuanced: the GDPR secures certain information rights and procedural protections, including the possibility of human intervention and contestation, but it does not provide a single, comprehensive explanatory entitlement applicable to all forms of AI deployment [8]. The AI Act, by contrast, does not create a broad subjective

right to explanation in the manner sometimes assumed in public debate. Instead, it imposes sector-specific and system-specific transparency duties and procedural safeguards in defined categories of AI use [17]. The interaction between the two regimes is therefore complementary and differentiated rather than competitive.

If the GDPR represents the personal data dimension of the digital acquis, the Data Governance Act and the Data Act represent its data access and data circulation dimensions. The Data Governance Act seeks to create a Union-wide framework of trust for the sharing and reuse of data. It regulates, inter alia, the reuse of certain categories of public sector data, the provision of data intermediation services, and mechanisms of data altruism [13]. In this respect it does not regulate artificial intelligence directly. Its significance lies elsewhere: it constructs institutional conditions for lawful, trusted and structured access to data. Since the development and operation of AI systems are critically dependent upon data availability and governance, the DGA performs a foundational enabling function within the broader digital legal order.

The Data Act develops this dimension further by establishing rules on fair access to and use of data, especially in contexts involving connected products and related services [16]. Whereas the DGA is primarily concerned with governance structures and trusted intermediation, the Data Act is more directly concerned with the allocation of access rights and obligations in relation to data generated through the use of digital products and services. For the purposes of AI regulation, this distinction is of considerable importance. The legal ordering of access to data, and the conditions under which such data may be shared or reused, bear directly upon the capacity to train, test, validate and improve AI systems. Taken together, the AI Act, the Data Governance Act and the Data Act form the data-governance substratum of the EU's AI regulatory model [13], [16], [17].

A further dimension of systemic interaction arises in relation to the regulation of online platforms and digital markets. The Digital Services Act is not an AI statute. It is directed towards intermediary services, online platforms, and very large online platforms and search engines, with particular emphasis upon illegal content, systemic risks, transparency, auditing and accountability [15]. Yet in practical terms many of the systems governed by the DSA rely extensively upon algorithmic recommender systems, automated moderation tools, advertising optimisation and other AI-enabled processes. The DSA addresses the systemic consequences of such systems in the online environment; the AI Act, by contrast, addresses AI systems according to their risk profile and function. Their interaction is therefore structural rather than incidental [15], [17].

The Digital Markets Act introduces yet another perspective. Its principal purpose is to secure contestable and fair markets in the digital sector by regulating large gatekeeper platforms [14]. Although not directed specifically at artificial intelligence, it bears upon the competitive conditions under which AI systems are developed, distributed and deployed. Control over digital ecosystems, access points, cloud infrastructures, user bases and commercially valuable data may significantly influence the shape of AI markets. The DMA thus contributes a market-structural layer to the regulation of artificial intelligence within the Union [14], [17].

The incompleteness of the AI Act as a self-sufficient regime is equally apparent in the sphere of legal responsibility and remedies. The proposal for an Artificial Intelligence Liability Directive formed part of the earlier EU liability package and was intended to address evidentiary and causal difficulties in non-contractual civil liability cases involving AI [11]. That proposal, however, was later withdrawn, and the liability dimension of contemporary EU law is now structured primarily through Directive (EU) 2024/2853 on liability for defective products, complemented by national liability regimes and general principles of EU law [18]. The revised Product Liability Directive is of particular significance because it updates the Union's liability framework for the digital age and extends no-fault liability to software and other defective products in technologically complex environments [18]. The distinction remains doctrinally important: the AI Act is predominantly ex ante in orientation, whereas liability law is ex post. The former seeks to reduce risks before harms materialise; the latter addresses the juridical consequences when they do [11], [17], [18], [20].

The doctrinal literature has not failed to identify tensions within this emerging system. Veale and Zuiderveen Borgesius have shown that the risk-based structure of the draft AI Act, though sensible in principle, gives rise to difficult questions of legal design, regulatory reach and the consequences of maximum harmonisation [19]. Wachter, in turn, has drawn attention to loopholes and limitations in the AI Act and the liability package, suggesting that significant risks may remain insufficiently addressed

notwithstanding the apparent breadth of the new framework [20]. These criticisms should not be dismissed as peripheral. They indicate that systemic interaction may generate not only complementarity, but also overlap, uncertainty and lacunae.

From this perspective, the significance of the AI Act lies not only in the obligations it imposes, but in the legal relationships it organises. It links the governance of AI to the protection of personal data, to the conditions of access to data, to the responsibilities of platforms, to the contestability of digital markets, and to the remedial structure of liability. That architecture is also embedded in a broader European and international normative context, reflected in the Council of Europe Framework Convention and in OECD standards, both of which reinforce the centrality of human rights, democracy, transparency, accountability and the rule of law in the governance of artificial intelligence [1], [10].

Conclusions. The foregoing analysis permits the conclusion that the regulation of artificial intelligence in the European Union has matured into a genuinely composite legal order in which the AI Act occupies a central, though by no means self-sufficient, position. Its true significance lies not in any claim to normative exclusivity, but in its capacity to operate within a wider framework of legal instruments which allocate distinct regulatory functions across the digital environment. It is precisely this distribution of functions – between rights protection, data governance, platform accountability, market structuring and liability – that gives the Union's approach both its coherence and its complexity. The European model of AI regulation is therefore best understood not as a closed code, but as an integrated architecture of interdependent regimes, each addressing a particular juridical dimension of artificial intelligence while contributing to a common regulatory purpose. In that respect, the future effectiveness of European AI law will depend less upon the isolated refinement of individual rules than upon the continued doctrinal clarity and practical coordination of the acquis as a whole.

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