Athens Journal of Law

Quarterly Academic Periodical,
Volume 12, Issue 4, October 2026
URL: https://www.athensjournals.gr/ajl
Email: journals@atiner.gr
e-ISSN: 2407-9685 DOI: 10.30958/ajl

Front Pages

Athens Journal of Law

Published by the Athens Institute

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The Athens Journal of Law
ISSN NUMBER: 2407-9685 - DOI: 10.30958/ajl
Volume 12, Issue 4, October 2026
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Gregory T. Papanikos
President
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Athens Journal of Law - Volume 12, Issue 4, September 2026 – Pages 225-242

Recent Amendments to Romanian Insolvency Law

By Lavinia-Olivia Iancu[*]

The recent amendments introduced by Law No. 239/2025 bring a series of targeted yet significant changes to the Romanian insolvency framework established by Law No. 85/2014. Rather than reshaping the system through a comprehensive reform, the legislator intervenes through punctual adjustments aimed at increasing procedural discipline, limiting abusive practices, and enhancing the overall efficiency of insolvency proceedings. A central aspect of these amendments concerns the regulation of persons closely related to the debtor. At the same time, the amendments introduce stricter conditions regarding the feasibility and implementation of reorganization plans. Another important dimension of the reform lies in the strengthening of legal tools aimed at challenging suspect transactions, particularly those involving persons connected to the debtor. Taken together, these legislative developments point towards a gradual reconfiguration of Romanian insolvency law, characterized by a shift from flexibility towards control, and from tolerance of complex intra-group arrangements towards heightened scrutiny. While these changes may contribute to greater procedural rigor and predictability, they also raise questions regarding the balance between efficiency and the preservation of genuine restructuring opportunities.

Keywords: *insolvency law, reform, reorganization, anti-abuse mechanisms*

Introduction

Insolvency law occupies a central position within contemporary market economies, functioning as a legal mechanism designed to reconcile the competing interests of debtors, creditors, employees, investors and public authorities. Beyond its traditional role of regulating situations of financial distress, modern insolvency legislation has increasingly become an instrument of economic policy, capable of influencing access to credit, market discipline and the overall efficiency of commercial activity.

The Romanian insolvency framework has undergone significant transformations during the last three decades. Following the transition from a centrally planned economy to a market-oriented system, the insolvency regime evolved from the provisions of Law No. 64/1995 to the more sophisticated framework established by Law No. 85/2006 and subsequently by Law No. 85/2014 on insolvency and insolvency prevention proceedings. The latter represented a major legislative codification effort, integrating previous regulations and aligning national law with emerging European standards in the field of restructuring and insolvency.

More than a decade after the entry into force of Law No. 85/2014, the Romanian legislature adopted a new package of amendments through Law No. 239/2025[1],

[*]Associate Professor, Tibiscus University Timisoara, Romania.

[1]Law No. 239/2025 on measures for the recovery and efficient use of public resources and for the amendment and supplementation of certain legislative acts, published in the Official Gazette of Romania, Part I, No. 1160 of 15 December 2025, entered into force on 18 December 2025.

introducing substantial changes to the insolvency proceedings. The significance of these legislative interventions extends beyond technical adjustments of procedural rules. Rather, they reflect a broader governmental strategy aimed at increasing the efficiency of debt recovery mechanisms, strengthening fiscal discipline and reducing the economic costs generated by prolonged insolvency proceedings. The adoption of these amendments must also be understood in the broader context of Romania's economic and fiscal challenges. During the period preceding the reform, concerns regarding the sustainability of public finances, the persistence of a significant budgetary deficit and the need to improve the collection of public claims occupied a prominent place in the national policy agenda. Simultaneously, public authorities promoted a wider programme of administrative and economic reforms intended to enhance institutional efficiency and strengthen fiscal consolidation measures. Within this context, insolvency law emerged as one of the legal instruments through which the legislature sought to improve the recovery of assets and reduce opportunities for abusive conduct capable of prejudicing creditors and public budgets alike.

Several principal objectives appear to underpin the legislative amendments: procedural efficiency, creditor protection and the prevention of abusive use of insolvency proceedings. The 2025 reform represents more than a technical revision of Law No. 85/2014; it is part of a broader legislative trend towards enhancing procedural discipline, increasing the effectiveness of debt recovery and strengthening accountability mechanisms, while simultaneously raising legitimate concerns regarding the preservation of restructuring opportunities and the balance traditionally maintained between debtor and creditor interests.

From a European perspective, the reform also raises important questions concerning the relationship between creditor protection and the rescue culture promoted by Directive (EU) 2019/1023[2]. While the Directive encourages mechanisms facilitating business rescue and restructuring, several of the amendments introduced in 2025 appear to place greater emphasis on procedural efficiency, accountability and the protection of creditors' interests. Consequently, the Romanian reform offers an interesting case study regarding the manner in which Member States seek to reconcile restructuring objectives with the growing demand for effective enforcement and fiscal responsibility.

[2]Directive (EU) 2019/1023 of the European Parliament and of the Council of 20 June 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency), OJ L 172, 26 June 2019.

The Legislative and Economic Context of 2025 Reform

The reform introduced through Law No. 239/2025 cannot be understood solely through an examination of the amendments brought to Law No. 85/2014. It must be analysed in the broader economic and legislative context that characterized Romania during the years preceding its adoption.

On 4 June 2025, the European Commission published The country report for Romania. It assessed Romania's progress in addressing the relevant country-specific recommendations and took stock of Romania's implementation of the recovery and resilience plan. Based on this analysis, the country report identified the most pressing challenges Romania is facing[3].

The Commission concluded that Romania is experiencing excessive macroeconomic imbalances. In particular, vulnerabilities have increased as Romania's twin fiscal and current account deficits widened, and cost competitiveness deteriorated in 2024. Overall, without resolute action on both fiscal and structural reform levers, fiscal and external deficits are likely to remain too high, leaving Romania significantly exposed to changes in investor sentiment and exogenous shocks[4].

By 2024 and 2025, concerns regarding the sustainability of public finances had become a central issue within Romanian public policy. Romania recorded the highest government deficit among the Member States of the European Union in 2024 at 9.3% of GDP[5], remaining subject to the excessive deficit procedure initiated by the European institutions[6]. The reduction of fiscal imbalances, the improvement of public revenue collection and the enhancement of administrative efficiency consequently became major objectives of governmental action.

At the same time, policymakers increasingly emphasized the need to strengthen the effectiveness of legal mechanisms designed to facilitate the recovery of claims and to prevent the inefficient allocation of economic resources. Insolvency proceedings occupied a prominent position within this debate. Although Law No. 85/2014[7] had established a modern insolvency framework and had undergone numerous amendments throughout its existence, concerns persisted regarding the duration of proceedings, the effectiveness of creditor recovery and practices capable of delaying the proper conduct of insolvency proceedings.

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[3]Council Recommendation of 8 July 2025 on the economic, social, employment, structural and budgetary policies of Romania, C/2025/3997, OJ C, 20 August 2025, recital 10.

[4]European Commission, *2025 European Semester- Spring Package*, COM(2025) 200 final, Brussels, 4 June 2025, p. 8; see also European Commission, recommendation for a Council Recommendation on economic, social, employment, structural and budgetary policies of Romania, COM(2025) 223 final, Brussels, 4 June 2025, recital 11.

[5]Eurostat, *Euro area government deficit at 3.1% and EU at 3.2% of GDP- Provision of deficit and debt data for 2024- first notification*, Euro indicators, 22 April 2025.

[6]Council Recommendation of 21 January 2025 with a view to bringing an end to the situation of an excessive deficit in Romania, ST 5038/25; see also Council Recommendation of 8 July 2025 on the economic, social, employment, structural and budgetary policies of Romania, C/2025/3997, OJ C, 20 August 2025, recital 12

[7]Law No. 85/2014 on Insolvency Prevention and Insolvency Proceedings, published in the Official Gazette of Romania, Part I, No. 466 of 25 June 2014, entered into force on 28 June 2014, as subsequently amended and supplemented.

Within this context, Romania adopted Law No. 239/2025 regarding measures for the recovery and efficient use of public resources and for the amendment of various legislative acts. The very title of the statute reflects the broader policy objectives pursued by the legislature, namely the strengthening of economic discipline and the improvement of institutional efficiency. Although the law amended numerous legislative acts, its intervention in the field of insolvency was among its most significant components.

The explanatory logic underlying the reform appears to have been based on the assumption that prolonged insolvency proceedings generate costs not only for private creditors but also for the wider economy. Delays in the administration of insolvency estates, reduced recovery rates and the strategic use of insolvency proceedings may negatively affect commercial certainty, distort competition and diminish the effectiveness of public debt recovery. Consequently, the amendments introduced in 2025 sought to strengthen procedural discipline, improve creditor participation and introduce additional safeguards against abusive conduct.

These concerns were not unique to Romania. At the European level[8], insolvency systems have increasingly been assessed not only from the perspective of debtor protection and business rescue, but also through their impact upon economic competitiveness, investment attractiveness and the efficient functioning of credit markets. Consequently, modern insolvency legislation has become closely connected to broader economic governance objectives, including fiscal sustainability and the promotion of responsible corporate behaviour. While Directive (EU) 2019/1023 promotes preventive restructuring frameworks and the preservation of viable businesses, it simultaneously recognises the necessity of protecting creditors and ensuring that insolvency procedures operate efficiently and transparently[9].

The Romanian legislator appears to have pursued a similar balance, albeit with a stronger emphasis on procedural efficiency and creditor protection than had previously characterized the insolvency framework established by Law No. 85/2014. Against this background, Law No. 239/2025 represents more than a technical amendment of insolvency legislation. It forms part of a broader effort to adapt insolvency law to contemporary economic realities, strengthen institutional effectiveness and improve the overall performance of insolvency proceedings within the Romanian legal system.

Main Directions of the 2025 Insolvency Reform

Procedural Efficiency

One of the principal objectives pursued by Law No. 239/2025 is the enhancement of procedural efficiency within insolvency proceedings. Although the Romanian insolvency framework established by Law No. 85/2014 was designed to ensure a balance between the interests of debtors and creditors, practical

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[8]Madaus, S., *The EU Preventive Restructuring Framework: A Commentary*, Oxford University Press, Oxford, 2023, p.23.

[9]Paulus, C.G., “European Restructuring and Insolvency Law after Directive 2019/1023”, *International Insolvency Review*, Vol. 29, No. 2, 2020, p. 139.

experience accumulated during more than a decade of application revealed persistent difficulties relating to the duration of proceedings, the complexity of decision-making processes and the maintenance of reorganization procedures that no longer had realistic prospects of success. Against this background, the 2025 reform introduced a series of measures intended to streamline the conduct of proceedings, strengthen institutional accountability and facilitate the adoption of timely decisions. Rather than pursuing efficiency as an objective in itself, the Romanian legislator appears to have sought to maximize the value of the debtor's estate and increase the prospects of creditor recovery by reducing procedural delays and eliminating structural sources of inefficiency.

A first category of measures concerns the composition and functioning of the creditors' committee. Under the regulatory framework applicable prior to the 2025 reform, the creditors' committee consisted of three or five creditors. The syndic judge could initially appoint the committee from among creditors holding the largest secured, budgetary and unsecured claims, while the first creditors' meeting could elect a committee from among the first twenty creditors entitled to vote. The committee performed significant supervisory and procedural functions throughout the insolvency proceedings. In particular, it analysed the debtor's financial situation and made recommendations concerning the continuation of its activity and proposed reorganization plans, reviewed the reports of the judicial administrator or liquidator and could challenge them, proposed additional measures to the creditors' meeting, could request the withdrawal of the debtor's right of administration and, where the insolvency practitioner failed to act, could bring actions seeking the avoidance of fraudulent acts or transactions concluded by the debtor[10].

Prior to the reform, the legal framework offered limited safeguards against situations in which the committee could be influenced by creditors maintaining close economic or personal ties with the debtor. Law No. 239/2025 substantially amended Article 50 of Law No. 85/2014, introducing a more sophisticated mechanism for the constitution of the creditors' committee. Paragraphs (1) and (4) of Article 50 now provide that the committee may consist of three, five or seven creditors selected from among the first twenty creditors entitled to vote, while ensuring representation of the principal categories of claims, namely secured claims, employee claims, budgetary claims and unsecured claims.

This amendment pursues a dual objective. On the one hand, it increases the representativeness of the committee by ensuring the participation of creditors belonging to different classes. On the other hand, it seeks to improve the quality and legitimacy of the decisions adopted during the procedure. The previous regulatory model occasionally generated criticism because major procedural decisions could be influenced by a limited number of creditors whose interests did not necessarily reflect those of the creditors' body as a whole. By requiring a broader and more balanced representation, the legislature appears to have sought to strengthen the institutional capacity of the committee while simultaneously reducing the risk of procedural deadlock.

The reform further enhances transparency through the introduction of new paragraphs (5^1)-(5^3) of Article 50. Particularly significant is the rule according to

[10] Art.50(1) and (4) and art. 51(1) (a)- (f), Law no. 85/2014 on Insolvency Prevention and Insolvency Proceedings, in the version applicable prior to the amendments introduced by Law no. 239/2025.

which no more than one creditor belonging to the category of persons closely connected to the debtor may serve as a member of the creditors' committee, and such creditor may not hold the position of committee chairperson. In addition, creditors falling within this category are required to disclose their relationship with the debtor, while the judicial administrator is entrusted with the responsibility of verifying the existence of such connections through consultation of the Trade Register, the beneficial ownership register and other relevant corporate records.

Although these provisions may initially appear to be directed primarily at preventing abuses, they also serve an important efficiency function. Insolvency proceedings frequently become protracted when conflicts of interest compromise the credibility of collective decision-making mechanisms, generating litigation and procedural challenges. By identifying and managing such conflicts at an early stage, the legislature seeks to facilitate more effective governance of the proceedings and reduce disputes concerning the legitimacy of decisions adopted by the creditors' committee.

The objective of accelerating procedural decision-making is also reflected in the amendments introduced to Article 51. Under the revised Article 51(6), any creditor seeking to challenge actions, measures or decisions adopted by the creditors' committee must do so within seven days from the publication of the relevant minutes in the Insolvency Proceedings Bulletin. The establishment of a clear and relatively short time limit contributes to legal certainty and prevents the emergence of prolonged periods of uncertainty regarding the validity of decisions taken during the procedure. In insolvency matters, where delays may rapidly erode the value of the debtor's assets, procedural predictability is often as important as substantive protection.

Equally relevant is the amendment of Article 51(7), which authorizes the replacement of members of the creditors' committee who repeatedly act in situations of conflict of interest, repeatedly fail to participate in committee meetings without justification or are subsequently found to belong to the category of "persons closely connected to the debtor ". While this provision undoubtedly serves broader anti-abuse objectives, it also contributes to procedural efficiency by ensuring the effective functioning of the committee and preventing situations in which its activity is compromised by members whose conduct undermines the proper administration of the proceedings.

Perhaps the most significant efficiency-oriented amendment introduced by Law No. 239/2025 concerns the new Article 58(1)(b^1). Under this provision, the judicial administrator is required to conduct a periodic assessment of whether a genuine possibility of effective reorganization continues to exist and, where such prospects no longer exist, to propose the commencement of bankruptcy proceedings. This amendment reflects a notable shift in legislative philosophy. Prior to the 2025 reform, Romanian insolvency law allowed relatively extended periods for the implementation of reorganization plans. Article 133(3^1) of Law No. 85/2014 provided that, in the case of legal persons, the implementation of a reorganization plan could extend over a period of four years from the date of its confirmation.

The legislator's concern with reducing the duration of insolvency proceedings is reflected in the Explanatory Memorandum[11] to Law No. 239/2025, which identifies, as a matter of priority, the shortening of insolvency proceedings and the periodic assessment of the debtor's genuine prospects of effective reorganization, with a view to facilitating an earlier transition to bankruptcy where such prospects no longer exist.

The 2025 reform did not shorten the statutory maximum duration of the reorganization plan, which remains four years for legal persons. Instead, it introduced a stricter periodic viability assessment mechanism, allowing an earlier transition to bankruptcy where effective reorganization is no longer realistically achievable.

The new provision imposes an affirmative duty upon the judicial administrator to periodically evaluate the viability of the reorganization process, at intervals not exceeding six months[12]. As a result, procedures that no longer serve a realistic rescue purpose may be terminated at an earlier stage, thereby preventing the unnecessary consumption of procedural resources and the further depreciation of the debtor's assets. From an economic perspective, the amendment seeks to distinguish viable enterprises capable of rehabilitation from those whose continued presence in reorganization merely delays the inevitable transition to liquidation.

A similar concern for procedural expediency can be observed in the amendments brought to Article 137 regarding the circulation of reorganization plans. The revised provision requires the judicial administrator to publish a notice concerning the proposed plan in the Insolvency Proceedings Bulletin and expressly provides for the electronic transmission of the plan to creditors upon request. This measure is expressly presented in the Explanatory Memorandum as part of the reform's objective of increasing creditor recovery by enhancing transparency and facilitating creditors' access to procedural information[13].

Furthermore, the law establishes a structured timetable for voting on the plan, thereby reducing the possibility of administrative delays associated with the dissemination of documentation. These measures are consistent with broader trends toward digitalization and modernization of insolvency proceedings, aiming to facilitate creditor participation while reducing transactional costs.

Taken together, the amendments analysed above reveal a coherent legislative effort to address procedural inefficiencies that had become apparent during the practical application of Law No. 85/2014. Rather than relying exclusively upon stricter deadlines, the reform seeks to improve the quality of decision-making institutions, enhance transparency, identify non-viable reorganizations at an earlier stage and facilitate more rapid communication between procedural actors. Consequently, procedural efficiency emerges not merely as a technical concern but as a fundamental principle underpinning the 2025 reform of Romanian insolvency law.

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[11]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 1(a).

[12]Art. 97(3^1) Law no. 85/2014 on Insolvecy Prevention and Insolvency Proceedings, as amended and supplemented by Law no. 239/2025

[13]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 3(d).

Creditor Protection

A second fundamental pillar of the 2025 reform is the strengthening of creditor protection. While Romanian insolvency law has traditionally sought to maintain a balance between the interests of debtors and creditors, the amendments introduced by Law No. 239/2025 reveal a legislative shift toward enhancing the position of creditors within the proceedings and increasing the chances of effective debt recovery. The reform was adopted against the backdrop of growing concerns regarding fiscal sustainability, the efficiency of public revenue collection and the economic consequences generated by lengthy insolvency proceedings with limited recovery prospects. In this context, creditor protection emerged not merely as a private interest but as an objective closely connected to broader considerations of economic discipline and financial stability.

One of the most significant innovations introduced by Law No. 239/2025 is the establishment of a comprehensive regulatory framework concerning person closely connected to the debtor[14].

A person closely connected to the debtor is any person who, within the two years preceding the commencement of the insolvency proceedings, has held at least one of the following positions or relationships:

(a) an affiliated person, as defined by Fiscal Code[15];
(b) a member of the debtor's management, administrative, or supervisory bodies;
(c) a legal entity whose management, administrative, or supervisory bodies include directors, managers, or shareholders of the debtor;
(d) a person having access to non-public information concerning the debtor's business and capable of influencing or controlling its operations, including employees of the debtor, or a person capable of deriving benefits from the debtor's financial position in the capacity of an external adviser, accountant, or auditor;
(e) the spouse or relatives up to the third degree inclusive of the persons referred to in subparagraphs (a) and (b);
(f) the debtor's beneficial owner

The category encompasses not only affiliated entities and members of the debtor's management bodies, but also beneficial owners, relatives, advisers and other individuals capable of influencing the debtor's affairs or benefiting from its financial situation. By doing so, the legislature moves beyond formal legal relationships and focuses instead on the economic reality of influence, access to information and effective control. Prior to the reform, the legislation contained only fragmented provisions addressing conflicts of interest and affiliated creditors. The new law adopts a considerably broader approach by defining and regulating the category of persons whose economic, managerial or ownership links with the debtor may

[14]Article 5(1) point 42^2 Law no. 85/2014 on Insolvency Prevention and Insolvency Proceedings.
[15]Affiliated persons, as defined for tax purposes under article 7(26) Law No. 227/2015 regarding the Fiscal Code, are the parent company and its subsidiaries; companies under common control; significant shareholders or equity holders; persons exercising direct or indirect control over the debtor.

affect the integrity of insolvency proceedings. The legislator's concern with limiting the influence of persons closely connected to the debtor is also reflected in the Explanatory Memorandum to Law No. 239/2025, which identifies the definition of this category, the limitation of its representation on the creditors' committee and the verification of such connections among the measures intended to prevent the diversion of insolvency proceedings from their statutory purposes[16].

This innovative feature is important, because insolvency proceedings are based upon the collective participation of creditors and the assumption that decisions concerning the administration of the debtor's estate are taken in the common interest of the creditors' body. This principle may be undermined where creditors formally participating in the procedure are, in reality, economically aligned with the debtor or with persons exercising control over it. By expanding the legal significance of relationships between creditors and the debtor, the legislature sought to reduce the possibility that insolvency proceedings could be influenced through affiliated entities acting under the appearance of independent creditors.

This objective becomes particularly visible in the amendments concerning the creditors' committee. Under the new Article 50(5^1), only one creditor falling within the category of persons closely connected to the debtor may serve on the creditors' committee, and such creditor is expressly prohibited from holding the position of chairperson. The provision constitutes a significant departure from the previous regulatory framework, under which affiliated creditors could, in practice, exercise substantial influence over the decision-making process.

The rationale of this amendment lies in the recognition that the creditors' committee performs a central role in the governance of insolvency proceedings. It supervises the activity of the insolvency practitioner, expresses positions regarding significant procedural measures and influences strategic decisions concerning the future of the debtor's business. Allowing the committee to be dominated by creditors maintaining close connections with the debtor would undermine both the credibility and the effectiveness of the procedure. Consequently, the reform seeks to ensure that the committee remains a genuine representative of creditor interests rather than a mechanism susceptible to indirect debtor influence.

The same concern explains the introduction of new disclosure and verification obligations. Creditors who fall within the category of persons closely connected to the debtor must expressly declare this circumstance, while the judicial administrator is required to verify the accuracy of such declarations through the consultation of relevant public registers and available corporate information[17]. The introduction of these obligations significantly increases procedural transparency and reduces the informational asymmetry that frequently characterizes insolvency proceedings.

From the perspective of creditor protection, transparency performs a function that extends beyond the mere prevention of conflicts of interest. Effective creditor participation depends upon access to reliable information regarding the identity, interests and affiliations of other participants in the procedure. By strengthening

[16]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 4(a)-(b)

[17]Art.50(5^1)-(5^3) Law no. 85/2014 Insolvency Prevention and Insolvency Proceedings

disclosure requirements, the legislature enhances the ability of creditors to evaluate the legitimacy of procedural decisions and to challenge conduct that may prejudice the collective interest of the creditors' body.

Another important aspect of the reform concerns the protection of creditors against transactions capable of diminishing the value of the insolvency estate. The amendments introduced by Law No. 239/2025 impose stricter scrutiny upon transactions involving persons closely connected to the debtor, particularly where such transactions concern the acquisition of assets from the insolvency estate.

The sale of assets as an independent business unit may be carried out in favour of a person closely connected to the debtor, provided that at least the following requirements are satisfied[18]:

(a) the sale procedure is open, competitive, transparent, and conducted under market conditions;
(b) the person closely connected to the debtor expressly discloses in its offer that it is a person closely connected to the debtor and specifies the nature of its connection with the debtor;
(c) persons who are not closely connected to the debtor are granted a reasonable period to submit competing offers, which shall not exceed 10 days;
(d) the information referred to in point (b) is disclosed to the creditors' committee and to the other bidders participating in the sale process;
(e) an independent valuation report concerning the assets as an independent business unit is prepared by an independent authorised valuer; where such a valuation has already been conducted during the insolvency proceedings, this requirement shall be deemed fulfilled.

The anti-abuse rationale of these provisions is also expressly reflected in the Explanatory Memorandum, which identifies the imposition of strict requirements for the sale of assets as an independent business unit to persons closely connected to the debtor, together with judicial authorization of such sales, among the measures intended to prevent the diversion of insolvency proceedings from their statutory purposes[19]. Such concerns are not merely theoretical, because practice has repeatedly demonstrated that affiliated transactions may create opportunities for the extraction of value from the estate to the detriment of creditors, particularly where effective safeguards are lacking.

The reform also strengthens creditor protection through measures designed to improve the recovery of claims. Although Romanian insolvency law continues to preserve its collective character and does not formally establish a hierarchy favouring particular categories of creditors beyond the statutory ranking of claims, the overall orientation of the amendments indicates a clear legislative preference for maximizing recovery rates. This objective is reflected in the stricter supervision of reorganization proceedings, the enhanced role of creditors in monitoring the

[18]Article 154^1 Law no.85/2014

[19]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 4(c)

conduct of the procedure and the broader effort to eliminate mechanisms capable of artificially delaying the realization of assets.

Particularly relevant in this regard is the relationship between creditor protection and the treatment of public claims. The adoption of Law No. 239/2025 formed part of a broader legislative programme aimed at improving the recovery and efficient use of public resources. The title of the law itself reflects this policy orientation. Although the reform does not fundamentally alter the ranking of public creditors within insolvency proceedings, it is difficult to ignore the broader fiscal considerations that influenced its adoption. Increased recovery rates inevitably benefit both private creditors and public authorities, particularly in a period characterized by significant concerns regarding budgetary sustainability and public revenue collection.

From a broader perspective, the amendments introduced by Law No. 239/2025 illustrate a shift from a predominantly debtor-oriented understanding of insolvency law toward a model placing greater emphasis upon creditor confidence and the protection of collective recovery interests.

Taken together, the provisions concerning affiliated creditors, transparency obligations, creditor representation and asset recovery reveal a coherent legislative effort to reinforce the position of creditors within insolvency proceedings. By limiting opportunities for indirect debtor influence and increasing the transparency of procedural governance, the 2025 reform seeks to ensure that insolvency remains an effective mechanism for the collective and equitable satisfaction of creditor claims.

Anti-abuse Mechanisms

A third defining feature of the 2025 reform is the legislature's determination to strengthen the integrity of insolvency proceedings by introducing a series of measures designed to prevent abusive conduct and to increase the accountability of individuals whose actions contribute to the debtor's financial collapse. While the Romanian insolvency framework has traditionally pursued a balance between facilitating business rescue and protecting creditors, practical experience revealed that insolvency proceedings could occasionally be exploited for purposes unrelated to their legitimate objectives. The reform also addresses the risk that insolvency proceedings may be used to delay enforcement, preserve control over assets or shield persons exercising effective control without formally holding management positions.

One of the central elements of the reform is the expansion of the legal framework governing persons responsible for the debtor's insolvency. Romanian insolvency law has long recognised the possibility of engaging the patrimonial liability of directors and other individuals whose conduct contributed to the debtor's inability to meet its obligations. However, the practical application of these provisions often encountered difficulties where the individuals exercising effective control over the debtor remained outside the formal management structure. In such situations, decision-making authority could be exercised by shareholders, beneficial owners or other influential actors who were not officially registered as directors, thereby limiting the effectiveness of existing accountability mechanisms.

The amendments introduced by Law No. 239/2025 seek to address this problem by broadening the scope of individuals who may become subject to liability proceedings. The reform reflects an increasingly accepted principle in modern insolvency law: responsibility should be linked not merely to formal corporate titles but also to the actual exercise of managerial influence and decision-making power. Consequently, the law moves beyond a purely formalistic understanding of corporate governance and places greater emphasis on the economic reality of control relationships.

This evolution is particularly significant because it aligns Romanian insolvency law with broader developments observable in comparative jurisprudence. Comparable concepts are well established in several European jurisdictions, either through legislation or case law. French insolvency law[20] expressly extends liability for insufficiency of assets to both *de jure* and *de facto* directors ("dirigeants de droit ou de fait"), while French case law[21] defines a de facto director by reference to the independent exercise of positive acts of management and direction. Spanish insolvency law[22] similarly includes de jure and de facto directors ("administradores de derecho o de hecho") among the persons whose conduct may lead to a finding of culpable insolvency. In the United Kingdom[23], the related concept of the "shadow director" is expressly defined as a person in accordance with whose directions or instructions the directors of the company are accustomed to act.

This comparative development is mirrored by the Romanian reform. The Explanatory Memorandum to Law No. 239/2025 expressly states that the liability action is no longer intended to concern only formal directors, but also de facto directors, understood as persons who impose the company's financial and operational decisions[24].

Although Romanian law traditionally approached such situations with greater caution, the 2025 reform clearly indicates a legislative willingness to prevent individuals from avoiding responsibility through formal separation from the company's governing bodies.

The amendments concerning liability also reveal an increased emphasis on deterrence. Insolvency law traditionally performs not only a compensatory function but also a preventive one. By expanding the circumstances in which liability may be engaged and by facilitating the identification of individuals exercising effective control over the debtor, the legislature seeks to discourage conduct that may contribute to financial distress or prejudice creditor interests. The reform thus signals a broader policy shift toward managerial accountability and responsible corporate governance.

The same objective is visible in the amendments concerning persons closely connected to the debtor. As discussed in the previous section, the reform introduces extensive disclosure obligations and restrictions regarding the participation of affiliated creditors in procedural governance. Another important anti-abuse dimension of the reform concerns the supervision of reorganization

[20]French Commercial Code, Art. L.651-2.

[21]Cour de cassation, Commercial Chamber, 1 December 2015, No. 14-20.116, ECLI:FR:CCASS:2015:CO01024.

[22]Art.442 and art.455(2)(1) Royal Legislative Decree 1/2020 of 5 May approving the consolidated text of the Insolvency Law, Spain.

[23]Companies Act 2006, s. 251(1), UK.

[24]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 2(b).

proceedings. One of the recurrent criticisms directed at insolvency practice was the tendency of certain debtors to prolong reorganization procedures despite the absence of realistic prospects for economic recovery.

This development is particularly relevant in the context of contemporary European discussions[25] regarding directors' duties in situations of financial distress. Directive (EU) 2019/1023 requires Member States to ensure that, where there is a likelihood of insolvency, directors have due regard to the interests of creditors, equity holders and other stakeholders, to the need to take steps to avoid insolvency, and to the need to avoid elberate or grossly negligent conduct that threatens the viability of the business.[26]. The Romanian reform reflects a similar concern with aligning managerial incentives with the objective of preserving enterprise value and protecting creditors.

The anti-abuse philosophy underlying Law No. 239/2025 therefore operates on multiple levels. It seeks to prevent the manipulation of creditor representation, reduce opportunities for conflicts of interest, discourage the artificial prolongation of reorganization proceedings and strengthen the accountability of those exercising effective control over financially distressed companies. Rather than treating insolvency solely as a mechanism for distributing losses after business failure has occurred, the reform increasingly views insolvency law as an instrument capable of influencing behaviour before and during financial distress.

Taken together, these amendments reveal a legislative effort to reinforce the legitimacy and credibility of insolvency proceedings. By targeting structural vulnerabilities that have historically facilitated opportunistic conduct, the reform aims to ensure that insolvency remains a collective procedure dedicated to the equitable treatment of creditors and the efficient administration of the debtor's estate.

Critical Assessment of the Reform

The amendments introduced by Law No. 239/2025 constitute the most significant intervention in Romanian insolvency law since the adoption of Law No. 85/2014. Their overall architecture reveals a clear legislative preference for procedural discipline, creditor protection and managerial accountability. While these objectives are legitimate and largely consistent with contemporary concerns regarding economic efficiency and fiscal sustainability, the reform also raises important questions concerning the future balance between creditor interests and the traditional rescue function of insolvency law[27].

A first strength of the reform lies in its attempt to address long-standing procedural deficiencies identified during the practical application of Law No. 85/2014. The introduction of mechanisms designed to ensure greater transparency in the composition of the creditors' committee, the stricter regulation of persons closely connected to the

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[25]Gurrea-Martínez A., *Towards an Optimal Model of Directors' Duties in the Zone of Insolvency*, *Journal of Corporate Law Studies*, Vol. 22, No. 1, 2022, p. 25-32.

[26]Directive (EU) 2019/1023, Art. 19; see also recitals 70–71.

[27]About “traditional rescue function” see Goode, R., *Principles of Corporate Insolvency Law*, 5th ed., Sweet & Maxwell, London, 2018, p.10.

debtor and the obligation imposed upon judicial administrators to periodically evaluate the viability of reorganization proceedings are likely to reduce procedural abuses and improve the quality of decision-making within insolvency proceedings. In this respect, the reform responds to vulnerabilities identified in the functioning of the insolvency framework and to the legislative objective of increasing procedural efficiency, particulary by reducing the duration of proceedings and strengthening the periodic assessment of the prospects of effective reorganization[28].

The reform may also contribute to increasing creditor confidence in insolvency proceedings. Creditors are more likely to support restructuring efforts and participate actively in insolvency procedures when they perceive the institutional framework as transparent, predictable and resistant to manipulation. By limiting the influence of affiliated creditors and strengthening disclosure obligations, the Romanian legislator seeks to enhance the legitimacy of collective decision-making mechanisms and to ensure that insolvency proceedings serve the interests of the creditors' body as a whole rather than those of specific groups connected to the debtor.

A further positive aspect concerns the enhanced accountability of individuals exercising control over distressed companies. The expansion of liability mechanisms reflects an increasingly accepted principle of contemporary insolvency law: responsibility should follow actual economic influence rather than formal corporate titles. The reform therefore reduces the possibility that individuals who effectively direct corporate affairs may avoid liability by operating through informal structures of control. Such an approach is particularly relevant in modern corporate environments, where ownership and managerial influence are frequently separated from formally registered positions.

Nevertheless, the reform is not immune from criticism. Perhaps the most important concern relates to the potential impact of the new provisions upon the rescue culture promoted by Directive (EU) 2019/1023. The Directive expressly seeks to enable viable enterprises experiencing financial difficulties to restructure at an early stage, with a view to preventing insolvency and avoiding the unnecessary liquidation of viable businesses. The Directive is built upon the assumption that economically viable enterprises should be afforded a realistic opportunity to reorganize before liquidation becomes inevitable[29]. By contrast, several provisions introduced by Law No. 239/2025 appear to prioritize efficiency and recovery objectives over restructuring considerations.

This tension becomes particularly visible in the new obligation imposed upon judicial administrators to periodically assess whether a genuine possibility of effective reorganization continue to exist and, where such a possibility no longer exist, to propose the commencement of bankruptcy proceedings. While the rationale underlying this provision is understandable, its practical application may prove challenging. Determining whether a company remains capable of successful reorganization is rarely a purely objective exercise. Insolvency practitioners are often required to evaluate future economic developments, market conditions and

[28]Government of Romania, *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*, 2025, section concerning the amendments to Law No. 85/2014, point 1(a).

[29]Directive (EU) 2019/1023, recitals 1–2 and Art. 4(1).

business opportunities that may be difficult to predict with certainty. An excessively restrictive interpretation of viability could therefore encourage premature transitions to bankruptcy and reduce opportunities for genuine business rescue.

Another issue concerns the growing emphasis placed upon creditor protection. Although strengthening creditor rights is a legitimate legislative objective, insolvency law has traditionally been based upon a careful equilibrium between creditor recovery and debtor rehabilitation[30]. Certain aspects of the reform may be interpreted as signaling a shift toward a more creditor-oriented model, particularly when considered in conjunction with the broader fiscal and economic context in which the law was adopted. The prominence accorded to recovery rates and procedural efficiency reflects concerns that extend beyond private creditor interests and include public policy objectives related to fiscal consolidation and public revenue collection. While understandable from a governmental perspective, this orientation may gradually alter the traditional balance characterizing Romanian insolvency law.

Additional practical difficulties may arise from the application of the concept of "persons closely connected to the debtor." Although the objective of preventing conflicts of interest is fully justified, the broad formulation adopted by the legislature may generate interpretative uncertainties. Insolvency practitioners and courts will inevitably face difficult questions regarding the identification of indirect relationships, beneficial ownership structures and situations involving complex corporate groups. Consequently, some degree of litigation concerning the scope and application of these provisions appears unavoidable during the first years following the reform.

The provisions concerning de facto controllers may generate similar challenges. While the extension of liability to individuals exercising effective control represents a welcome development from the perspective of accountability, the evidentiary burden associated with establishing such control may prove substantial. Courts may therefore face the difficult task of distinguishing between legitimate shareholder influence and actual managerial control, a distinction that has generated considerable debate in comparative insolvency jurisprudence[31]. The effectiveness of these provisions will therefore depend largely upon the consistency of judicial interpretation and the ability of insolvency practitioners to gather adequate evidence.

Ultimately, the 2025 reform should not be understood merely as a technical amendment to Law No. 85/2014. It represents a policy choice regarding the future orientation of Romanian insolvency law. The legislature has clearly signalled its preference for a more disciplined and economically efficient insolvency system. The challenge for future practice will be to ensure that this objective does not undermine the goal of preserving viable businesses and encouraging successful restructuring efforts.

[30]Fletcher, I.F., *The Law of Insolvency*, 5th ed., Sweet & Maxwell, London, 2017. p.41

[31]Finch V., Milman D., *Corporate Insolvency Law: Perspectives and Principles*, 3rd ed., Cambridge University Press, Cambridge, 2017, p. 579-644; See also *Secretary of State for Trade and Industry v Deverell* [2001] Ch 340, where the Court of Appeal emphasised that the concept of a shadow director must be interpreted in light of the actual influence exercised over corporate decision-making.

Conclusions

The reform introduced through Law No. 239/2025 represents one of the most significant developments in Romanian insolvency law since the adoption of Law No. 85/2014. Far from constituting a mere technical revision of existing provisions, the amendments reveal a broader legislative effort to recalibrate the functioning of insolvency proceedings in response to contemporary economic, fiscal and institutional challenges. The reform was adopted in a period marked by increasing concerns regarding public finances, the efficiency of debt recovery mechanisms and the need to strengthen economic discipline, all of which influenced the legislative choices reflected in the new regulatory framework.

The reform also raises important questions concerning the future orientation of Romanian insolvency law. The increased emphasis on procedural discipline, creditor recovery and accountability may contribute to a more efficient insolvency framework, but it also creates the risk that restructuring objectives could gradually become secondary to recovery considerations. The long-term challenge will therefore consist in maintaining an appropriate equilibrium between efficiency and restructuring, between creditor protection and business rehabilitation.

Ultimately, the success of the 2025 reform cannot be assessed solely by reference to the text of the law. Its effectiveness will depend upon the manner in which courts, insolvency practitioners and creditors interpret and apply the new provisions in practice. If implemented in a balanced and coherent manner, the amendments introduced by Law No. 239/2025 have the potential to enhance the credibility, transparency and effectiveness of Romanian insolvency proceedings. Whether they will simultaneously preserve the restructuring opportunities necessary for economically viable businesses remains a question that only future practice and jurisprudence will be able to answer.

The 2025 reform thus marks not merely a legislative amendment, but a significant moment in the evolution of Romanian insolvency law, signalling a shift toward a more disciplined, transparent and creditor-conscious system while reopening the debate concerning the proper balance between economic efficiency and the rescue function traditionally associated with modern insolvency regimes.

References

Goode, R. (2018). *Principles of Corporate Insolvency Law*, 5th ed., Sweet & Maxwell, London.

Gurrea-Martínez, A. (2022). *Towards an Optimal Model of Directors' Duties in the Zone of Insolvency, Journal of Corporate Law Studies*, Vol. 22, No. 1.

Fletcher, I.F. (2017). *The Law of Insolvency*, 5th ed., Sweet & Maxwell, London.

Finch V., & Milman, D. (2017). *Corporate Insolvency Law: Perspectives and Principles*, 3rd ed., Cambridge University Press, Cambridge.

Madaus, S. (2023). *The EU Preventive Restructuring Framework: A Commentary*, Oxford University Press, Oxford.

Paulus, C.G. (2020). "European Restructuring and Insolvency Law after Directive 2019/ 1023", *International Insolvency Review*, Vol. 29, No. 2.

Legislation and Legal Instruments

Council Recommendation of 8 July 2025 on economic, social, employment, structural and budgetary policies in Romania, C/2025/3997

European Commission. (2025). *2025 European Semester: Country Report Romania*, Commission Staff Working Document SWD (2025), Brussels.

Eurostat. (2025). *Euro area government deficit at 3.1% and EU at 3.2% of GDP- Provision of deficit and debt data for 2024- first notification*, Euro indicators.

Government of Romania. (2025). *Explanatory Memorandum – Draft Law on establishing measures for the recovery and more efficient use of public resources and for amending and supplementing certain normative acts*.

Law No. 239/2025 on measures for the recovery and efficient use of public resources and for the amendment and supplementation of certain legislative acts

Directive (EU) 2019/1023 of the European Parliament

Law No. 85/2014 on Insolvency Prevention and Insolvency Proceedings

Athens Journal of Law - Volume 12, Issue 4, September 2026 – Pages 243-268

Artificial Intelligence and Human Rights in the Context of Globalization. Challenges and European Regulations in Romania

*By Adriana Iuliana Stancu**

Artificial intelligence in public administration, education and other sensitive areas raises essential questions about fairness, transparency and the protection of fundamental rights. The article addresses a central question: how can AI be regulated in a way that respects human dignity and protects fundamental rights? Starting from the European framework, with a focus on the AI Act and its human-centric approach to AI governance, the article provides a critical analysis of how these requirements are reflected in national realities. The Romanian case study highlights the gap between regulatory ambitions and concrete implementation: from digital justice and public administration to the education system where algorithms are present without a real public debate. Issues including the need for ethical audit mechanisms, the scope of citizen involvement and systemic risks for vulnerable groups are discussed from an interdisciplinary and applied perspective. The article proposes several solutions to strengthen the democratic framework of AI: establishing real forms of public participation, developing tailored control and monitoring tools, and recognizing the role of universities in promoting an ethical culture of digitalization. Through its critical but constructive tone, the article not only assesses existing regulations, but also provides a direction for the future – one in which technology serves people rather than replacing human judgment.

Keywords: *artificial intelligence; globalization; AI Act; algorithmic discrimination; data protection*

Introduction – On Dignity and Decisions Made by Machines

Technology has entered our lives step by step. Some changes were made quickly, without much explanation. Others came more slowly, but with effects that are still felt today. Behind digital applications or platforms, algorithms have begun to play an increasingly important role.

This raises a simple and legitimate question: how do we defend our dignity, when many decisions are taken over by automated systems?

Artificial intelligence is no longer merely a topic for the future. This article examines its legal implications, together with those of related digital systems, in areas such as judicial case allocation, scholarships and social assistance. In theory, these systems should be objective and effective. In practice, things are more complicated.

Algorithmic systems may offer practical benefits, including shorter processing times, reduced administrative burdens and more consistent organisation of

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information. But in the absence of clear boundaries and public control, errors, inequities or even subtle forms of exclusion can occur.

To respond to these challenges, the European Union adopted a harmonised regulatory framework known as the AI Act. The Regulation seeks to strike a balance between innovation and respect for fundamental rights.

Because, ultimately, no matter how precise an algorithm is, if it does not have the human being at the centre - with their needs, fears, and rights - we risk that progress will become a path without a compass.

In legal terms, human dignity is both a foundational principle and a legally protected value. Within the European Union, Article 1 of the Charter of Fundamental Rights affirms that "Human dignity is inviolable. It must be respected and protected." For the purposes of this article, Article 1 is used as a normative benchmark for assessing whether the design and use of AI-related systems respect individuals and their fundamental rights.

At the level of the European Convention on Human Rights, human dignity is not listed as a separate Convention right. Nevertheless, the European Court of Human Rights has linked respect for human dignity and personal autonomy to the protection of private life under Article 8. In Pretty v. the United Kingdom (2002) the Court examined questions concerning personal autonomy, identity and private life in terms closely connected with human dignity.

In the context of artificial intelligence, human dignity is challenged not only by the misuse of personal data or opaque algorithmic decisions, but also by the dehumanization effects of systems that reduce individuals to statistical profiles or behavioural patterns. As McCrudden[2] (2008) notes, dignity in legal discourse functions as a bridge between moral claims and enforceable rights-a function increasingly tested by digital systems with decision-making power.

Against this background, this article treats artificial intelligence not merely as a technological advancement, but as a legal challenge requiring a reassessment of the relationship between innovation and the protection of fundamental rights. It is not merely a matter of new rules, but of how we choose to maintain the balance between efficiency and respect for the individual. However, most of this scholarship remains either theoretical, focused on the EU framework in abstract, or centred on general principles of trustworthy AI. Less attention has been paid to the practical gap between the European regulatory model and its domestic implementation in a specific Member State such as Romania.

This article seeks to explore how the newly adopted EU Artificial Intelligence Act (Regulation (EU) 2024/1689) addresses-or fails to address-these dignity-related concerns, particularly in the case of Romania. The central research question is whether the current European regulatory framework, together with the Romanian legal and institutional framework, can provide effective safeguards for human dignity in the use of AI in justice, public administration, and education. The article uses a normative and comparative legal method, combined with a Romanian case-study approach, based on legal texts, institutional documents, official reports, and relevant scholarship. Its contribution lies in showing that the

[2]McCrudden, Christopher (2008) Human Dignity and Judicial Interpretation of Human Rights. *European Journal of International Law,* 19(4), pp. 655–724.

key issue is not only the content of the EU rules, but also the gap between those rules and their domestic implementation.

Methodology

This article combines normative and comparative legal analysis with a Romanian case-study approach. The Romanian case study focuses primarily on the use and governance of AI systems and related digital systems in justice, public administration and education. Healthcare and social assistance are addressed only as contextual examples in the discussion of vulnerable groups and high impact uses, rather than as separate comparative sectors.

The comparative references retained in the article focus primarily on France and on relevant Union-level benchmarks under the AI Act. Finland is used only as a contextual illustration of a public-sector digitalization initiative through the AuroraAI project. The selection is illustrative rather than exhaustive and does not constitute a systematic country-by-country comparison. No other jurisdiction is treated as a separate comparative benchmark; any incidental reference to another jurisdiction is retained only where supported by a specific official source and where it is directly relevant to the safeguard or institutional approach under discussion.

The analysis relies primarily on EU and Romanian legislation, complemented, where relevant, by official legal and institutional materials from France and by official institutional materials concerning the discussed contextual examples. Official reports, institutional documents and selected scholarly sources are used to support the analysis. Sources were selected for their direct relevance to the applicable legal framework, institutional implementation and protection of fundamental rights. Primary legal and institutional materials were prioritized, while scholarly sources were used to support conceptual and critical analysis.

The comparative assessment considers, for each system examined, first whether its functionality falls within the definition of an AI system under Article 3(1) of the AI Act and, where it does, whether its intended purpose falls within a high-risk category under Article 6 and Annex III. The assessment then considers the safeguards applicable to the relevant classification, including transparency and explainability, human oversight, the possibility of review and contestation, conformity assessment where applicable, monitoring mechanisms, institutional responsibility, public participation and the protection of vulnerable groups. Related digital systems are not presumed to constitute AI systems solely because they perform automated case-management or administrative functions.

The analysis covers developments from 2020 through 10 August 2026. Earlier legal and institutional materials are used where necessary to explain the background and evolution of the relevant digital systems. The comparative discussion is limited to the safeguards, institutional arrangements and transparency mechanisms for which the article identifies a specific and verifiable source.

Human Dignity in the face of Algorithms – between Principle and Real Guarantee

If we had to choose one value that underpins the entire architecture of human rights, it would undoubtedly be dignity. Not only because it is expressly recognized in the preamble and Article 1 of the Universal Declaration of Human Rights and in Article 1 of the Charter of Fundamental Rights of the European Union, but because it represents, in a profound sense, the recognition that every person matters[3].

Although it seems natural to talk about dignity as something that is self-evident, it becomes a vulnerable notion in the face of the cold logic of digital systems. We can rightly ask ourselves what is left of the idea of dignity when decisions concerning the life of a student, a patient or a litigant are silently taken over by a computer program. Can we talk about respecting this principle when the person concerned does not understand how he was assessed or why a certain label was applied to him? This is not an abstract issue. When a decision becomes opaque and the individual no longer understands how they were assessed, a real disconnect emerges between technology and human dignity. As discussed in the analysis cited here, the risk lies not only in error but also in the loss of human control over processes that directly influence an individual's life.

The AI Act refers to human dignity among the fundamental values relevant to the regulation of artificial intelligence[4]. But, as Smuha[5] also observed, without concrete protection mechanisms, dignity risks remaining just an honourable intention, not an effective guarantee.

Some authors propose a return to the essence of the concept. Floridi and Cowls[6], for example, insist that AI must be developed not only for performance, but for the common good – an AI for Social Good. More precisely, technology should help us without reducing us to simple lines of code in a cold, automated system. In contemporary literature, dignity is closely associated with concepts such as valid consent, personal autonomy, and the right not to be reduced to a purely algorithmic social function. This issue is particularly relevant in domains such as education, justice and healthcare, where algorithmic tools may support, shape or constrain human decisions.

Moreover, dignity is deeply intertwined with the notion of moral agency - the individual's ability to act freely and consciously. AI technologies operating without

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[3]United Nations, Universal Declaration of Human Rights, adopted by General Assembly resolution 217 A (III) of 10 December 1948, Preamble and Article 1, available at: https://www.ohchr.org/en/human-rights/universal-declaration/translations/english; European Union, Charter of Fundamental Rights of the European Union, Article 1, Official Journal of the European Union, C 326, 26 October 2012, pp. 391–407, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT.

[4]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, Recitals 4 and 27, Official Journal of the European Union, L 2024/1689, 12 July 2024, available at: https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng.

[5]Smuha, E. (2021). Artificial Intelligence for a Better Future: An Ecosystem Perspective on the Ethics of AI and Emerging Digital Technologies. *Springer*. https://doi.org/10.1007/978-3-030-69978-9.

[6]Floridi, L., & Cowls, J. (2019) A Unified Framework of Five Principles for AI in Society. *Harvard Data Science Review*, 1(1). https://doi.org/10.1162/99608f92.8cd550d1.

transparency or meaningful contestability may threaten individual autonomy by turning freedom into a programmable illusion.

In the Romanian context, the practical protection of dignity requires documented safeguards for the use of digital solutions in citizen–state interactions. Dignity must therefore be protected through enforceable safeguards.

European Framework. AI Regulation and the Protection of Human Dignity

In the context of the accelerated advance of artificial intelligence technologies, the European Union felt the need for firm regulatory intervention to draw clear boundaries and protect fundamental rights. It is no longer just about technological innovation, but about values: about what kind of society, we want to build in a digital age. That is why, on 13 June 2024, the European Parliament and the Council adopted Regulation (EU) 2024/1689, known as the AI Act. As a regulation[7], it is directly applicable in the Member States, while its entry into force and its staged dates of application are governed by Article 113. One of the keys to reading the AI Act is its risk-based structure. Article 5 prohibits certain AI practices, while Article 6, read together with Annexes I and III, sets out the categories of high-risk AI systems. The legal classification depends primarily on the system's intended purpose and the applicable conditions under Article 6, not merely on the sector in which it is used. Certain biometric practices and social-scoring practices are prohibited under Article 5, whereas specified uses of AI in justice, education, public administration or other sensitive areas may be classified as high-risk or may be subject to transparency or other obligations under the Regulation, depending on the system's intended purpose and the applicable provision[8].

In this regard, the AI Act should not be viewed merely as a technical tool, but as an effort to place technological development within a framework of accountability. The literature emphasizes that this regulation marks a paradigm shift: from a reactive approach to a preventive one, centred on risk assessment and the effective protection of fundamental rights.

High-risk systems therefore do not comprise all systems used in education, healthcare, law enforcement or justice. Under Article 6 and Annex III, the relevant categories cover only specified uses and are subject to the conditions and exceptions laid down in the Regulation. For high-risk AI systems, the AI Act imposes requirements concerning, among other matters, risk management, data and data governance, technical documentation, record-keeping, transparency, human oversight, accuracy, robustness and cybersecurity[9].

[7]Treaty on the Functioning of the European Union, Article 288, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012E288.

[8]Regulation (EU) 2024/1689, Articles 5 and 6, Annex III and, where applicable, Article 50, available at: https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng

[9]Regulation (EU) 2024/1689, Articles 8–15, 16–27, 43–49 and 72–73, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

The AI Act is not just a collection of technical rules, but expresses, in essence, a political and moral commitment: to put technology at the service of the values that define the European project. It is a declaration that digital progress cannot remain outside democratic control.

A fundamental part of this system is genuine collaboration between Member States, as a condition for the effective functioning of the new governance, control and enforcement structures. The AI Office is established within the European Commission as part of the Union governance framework for artificial intelligence. Member States must designate at least one notifying authority and at least one market surveillance authority and must ensure that the authorities designated under the Regulation have the powers and resources necessary to perform their tasks. The specific functions of those authorities depend on the allocation of responsibilities established by the Regulation and by the applicable national arrangements[10].

The legal framework described above does not, by itself, resolve the practical challenges raised by digitalization in Romania. The idea from which this whole endeavour starts is simple and firm: human dignity is not negotiable, and no technological progress - no matter how spectacular - can justify violating this limit.

Vulnerable Groups and Systemic Risks

Digitalization is neither good nor bad. It all depends on the context, the implementation, and, above all, the people who design or apply it. For those who are already socially advantaged, AI can be a resource; for the vulnerable, it can become an unfair filter, a source of exclusion.

A lucid analysis of the impact of artificial intelligence must start precisely from this asymmetry. A child with locomotor disabilities who lives in a village may not benefit from the same technological opportunities as an urban student connected to the digital infrastructure. Likewise, an elderly person who does not use the internet may face practical barriers when administrative procedures are increasingly automated.

Eubanks (2018)[11], in Automating Inequality, examines how automated systems can reproduce and amplify pre-existing social inequalities. What seems like a neutral tool may, in fact, reflect structural biases in society.

Take, for example, an AI system used to analyse applications for social assistance or educational benefits. While the intention may be to streamline the process, a system trained on historical data may reproduce discriminatory patterns and may classify persons from disadvantaged backgrounds as being at risk based on past data or classifications. This type of digital profiling could contribute to exclusion, particularly where affected persons lack effective means of understanding or contesting the outcome[12].

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[10]Regulation (EU) 2024/1689, Chapter VII, in particular Articles 64–70, available at: https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng.

[11]Eubanks, Virginia (2018) *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. New York: St. Martin's Press.

[12]Commission Staff Working Document SWD(2021) 84 final, Impact Assessment accompanying the Proposal for a Regulation laying down harmonised rules on artificial intelligence, in particular

AI has remarkable potential in areas such as justice or health, but precisely where the human stakes are the highest, it must be applied with the utmost caution. The literature and policy analysis cited here draw attention to systemic risks, including the lack of transparency of algorithmic decisions, difficulties in understanding or challenging automated assessments, and the risk of discriminatory effects on affected groups.

Digital inequalities are not just a matter of connectivity or resources, but of inclusive thinking. When AI systems are designed in offices isolated from social reality, they tend to serve those who created them rather than those who need them most. Any regulatory response must therefore start from the premise of fairness.

The European Union recognizes these challenges in the AI Act, which addresses certain uses in education, access to essential services and benefits, law enforcement and the administration of justice through its prohibited-practice and high-risk provisions. Article 5 concerns prohibited AI practices, whereas Article 6, read together with Annex III, identifies categories of high-risk AI systems. A system is not classified as high-risk solely because it is used in one of these sectors. The applicable obligations depend on the system's intended purpose and classification and may include requirements concerning risk management, human oversight, transparency, documentation, accuracy, robustness and cybersecurity[13].

However, implementing and operationalising these rules in a country like Romania involves more than adopting legislative amendments. It requires a shift from efficiency to inclusion. It is not enough to have transparent algorithms; the real question is who may be left out. Without this question, AI risks becoming a tool of the powerful, not a lever for social justice.

Monitoring Tools and Ethical Auditing: who Watches over the Algorithms?

When technology is designed to play a visible role in the life of the citizen - for example, through digital medical records or the automated evaluation of administrative requests - the question naturally arises: who is watching? Who is making sure that algorithms do not turn from helpful tools into blind mechanisms that forget the human being?

Technical correctness alone is not sufficient to ensure that an algorithmic system produces fair outcomes. In real life, an apparently neutral decision can produce profound injustices, especially when it ignores the nuances - the context, the vulnerabilities, the exceptions that do not fit into a formula. That is why more voices are speaking about the need for constant supervision, not only at the beginning of the process, but throughout the life of a digital system.

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the analysis of impacts on fundamental rights and vulnerable groups, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021SC0084.

[13]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, in particular Articles 5 and 6, Annex III and Articles 9–15, Official Journal of the European Union, L 2024/1689, 12 July 2024, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

This form of ethical oversight requires an interdisciplinary approach, in which engineers, lawyers, sociologists and citizens work together. It is not about putting a brake on innovation, but about accompanying it with a simple but essential question: who benefits from this technology?

Participatory assessments - made not only by technical specialists, but also by communities directly affected - may offer a more complete picture of the social impact of a technology. The AI Act establishes requirements for high-risk AI systems in Articles 8–15, obligations for providers, deployers and other operators in Articles 16–27, conformity-assessment procedures in Articles 43–48, and registration obligations in Article 49. Article 72 concerns post-market monitoring, while Article 73 concerns the reporting of serious incidents. These provisions do not impose a general obligation to carry out participatory social audits of all high-risk AI systems[14].

In Romania, the development of such mechanisms would require more than the existence of general legal responsibilities. It would also require procedures enabling a structured dialogue with affected citizens. Models such as "Ethics Review Boards" - independent committees made up of specialists from several fields - could be adapted in Romania.

Finally, public trust is not earned only by respecting standards. It is built over time, through transparency, honesty and the ability to correct mistakes. And this means that monitoring AI cannot be the task of a single actor. It is a shared responsibility - of institutions, research, the press and, above all, civil society.

Implementation of the AI Act in Romania - Challenges and Solutions

The adoption of the AI Act by the European Union has brought to the forefront a topic that until recently seemed reserved for the sphere of technology: the regulation of algorithms in the name of human dignity[15]. For Romania, this stage is not just a bureaucratic obligation, but an invitation to reflection – about how we want the state to function, about what kind of trust we still have in institutions and, finally, about how to build a culture of digital responsibility.

Although the AI Act is directly applicable in all Member States, its application requires national institutional arrangements, supervision and enforcement. For Romania, the challenge is therefore not only the existence of the legal framework, but also the capacity of the administrative system to understand and apply the new rules and, more precisely, to transform them from abstract provisions into coherent public policies and functional institutional mechanisms.

[14]Regulation (EU) 2024/1689, Articles 8–15, 16–27, 43–49 and 72–73, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

[15]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024, Official Journal of the European Union L 2024/1689, 12 July 2024, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

This is why the Romanian case is especially relevant: it tests whether formal alignment with the AI Act can be converted into administrative capacity and enforceable safeguards[16].

Under Article 70 of the AI Act, Romania was required to designate or establish, by 2 August 2025, at least one notifying authority and at least one market surveillance authority and to provide the authorities designated under the Regulation with the powers and resources necessary to perform their tasks. These functions may be allocated to one or more national authorities, provided that the applicable requirements concerning competence, independence, impartiality and resources are met. The relevant implementation challenge is therefore to ensure clear competences, coordination and procedures, rather than necessarily to create a single new authority[17].

Another implementation issue concerns the registration of certain AI systems covered by the AI Act. Article 71 provides for an EU database for high-risk AI systems referred to in Article 6(2), while Article 49 imposes registration obligations on relevant providers and, in certain cases, deployers, including public authorities and public service providers using such systems. This does not amount to a general obligation to create a comprehensive public registry of all AI systems used in Romania. The Romanian implementation question is therefore how the relevant registration, disclosure and supervisory arrangements will operate in practice[18].

Uncertainty concerning registration, disclosure and supervisory arrangements could generate serious consequences. If reporting standards were unclear or implementation could not be effectively verified, there would be a risk of using insufficiently tested systems with discriminatory or arbitrary effects[19]. In this sense, transparency in AI governance cannot remain a formal declaration of compliance; it must be verifiable ex ante and auditable ex post.

The European Commission's 2021 impact assessment also examined the need for supervision, monitoring and enforcement in relation to the proposed AI framework[20]. This means that implementation should be assessed not only at the level of formal compliance with the Regulation, but also at the level of institutional readiness and operational enforcement.

The effective implementation and operationalisation of the AI Act in Romania will depend not only on political will, but also on institutional readiness and administrative capacity.

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[16]Regulation (EU) 2024/1689, Article 113, which provides that the Regulation is binding in its entirety and directly applicable in all Member States, and Chapter VII on governance, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

[17]Regulation (EU) 2024/1689, Article 70, in conjunction with Article 113(b), consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R16 89-20260727.

[18]Regulation (EU) 2024/1689, Articles 49 and 71, together with Article 6(2), consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02 024R1689-20260727.

[19]Wulf, Jörg (2022) Automated Decision-Making Systems and Discrimination: Understanding Causes, Recognizing Cases, Supporting Those Affected. *AlgorithmWatch*, 2022, p. 8.

[20]European Commission. Commission Staff Working Document SWD(2021) 84 final: Impact Assessment accompanying the Proposal for a Regulation laying down harmonised rules on artificial intelligence, Brussels, 21 April 2021. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CEL EX:52021SC0084.

Furthermore, the AI Act itself establishes the rules on risk classification, high-risk requirements, human oversight and conformity assessment. Romania's implementation challenge concerns the designation of competent authorities, procedural arrangements, supervision, enforcement and any complementary national measures permitted or required by the Regulation. The main challenge is therefore operationalisation and enforcement, rather than reproducing Articles 6–15 in Romanian legislation. The practical risk would therefore be incomplete institutional and procedural operationalisation or excessive reliance on private actors for compliance management.

To address these challenges, Romania should adopt an AI Implementation Roadmap, including:

- the legal designation of one or more national competent authorities for AI supervision, with clearly defined responsibilities and coordination mechanisms;
- the creation of an interdisciplinary task force including technologists, legal scholars, and civil society;
- integration into public procurement and digital strategy documents of verification procedures for any conformity-assessment requirements applicable under the AI Act;
- mandatory training modules for judges, civil servants, and education administrators regarding high-risk AI systems usage.

Implementation should not be treated as a mere bureaucratic step but as a democratic obligation to align technological governance with fundamental rights. Failure to operationalize the AI Act could undermine both the rule of law and public trust in digital institutions.

Beyond legal harmonization, the success of the AI Act's implementation in Romania also depends on embedding participatory ethics into the regulatory process. This is particularly important in high-impact sectors such as justice and education, where algorithmic decisions can affect rights that are difficult to repair after the fact. This involves more than public consultations or post-facto reporting. It requires creating inclusive mechanisms through which stakeholders-academics, civil society organisations, judges, educators, and marginalised communities-can shape both the interpretation and enforcement of AI rules. Ethical oversight should not be limited to technical audits or legal reviews but should include democratic deliberation on what kinds of AI are acceptable in public life and under what conditions.

Participatory ethics offers a way to reconnect legal implementation with social legitimacy. It helps bridge the gap between formal compliance and actual public trust. Romania could examine participatory governance approaches developed in other European jurisdictions, provided that any comparative claim about their transparency, value alignment or practical effects is supported by country-specific evidence. It could consider establishing local and national AI ethics panels, ensuring that implementation is not only administratively efficient, but also normatively grounded and publicly accountable.

Table 1. *Romania and Comparative Benchmarks under the AI Act*

AI Act requirement	Romania	Comparative benchmark	Practical takeaway for Romania
Registration and transparency of high-risk systems	According to the information published by ANCOM on 24 July 2026, the national competent authorities responsible for artificial intelligence Act were still working on the national implementation framework, including institutional competences, cooperation mechanisms and sanctions. The source does not establish the existence of a comprehensive Romanian public registry covering all AI systems used in public administration. The AI Act itself provides for an EU database for certain high-risk AI systems[21].	EU-level benchmark: Article 71 of the AI Act establishes an EU database for high-risk AI systems referred to in Article 6(2). Article 49 establishes registration obligations for relevant providers and, in specified cases, deployers. The AI Act does not establish a general obligation to create a separate public national registry of every AI system used in the public sector[22].	Romania should operationalize the national registration and supervisory arrangements required by the AI Act and may consider additional public transparency measures for public-sector AI systems. Such measures should be presented as complementary national policy choices, not as a general obligation to create a comprehensive national registry derived from the AI Act.
Human oversight	The AI Act requires appropriate human oversight for high-risk AI systems. The information reviewed for this article does not establish the existence of a single general Romanian mechanism covering human oversight of all	EU-level benchmark: Article 14 requires high-risk AI systems to be designed and developed so that they can be effectively overseen by natural persons during their use. The required oversight must be proportionate to the	Romania should ensure that public authorities using high-risk AI systems identify the responsible human overseers, define their powers and duties, provide appropriate training and preserve the ability to interpret,

[21]ANCOM, "Regulamentul privind inteligența artificială în România – stadiul actual al cadrului de implementare/ Regulation on artificial intelligence in Romania – current status of the implementation framework", 24 July 2026, available at: https://www.ancom.ro/despre-noi/media/comunicate-de-presa/regulamentul-privind-inteligenta-artificiala-in-romania-stadiul-actual-al-cadrului-de-implementare/.

[22]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, Articles 14, 43–49, 70–72 and Annex VII, point 5.3, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

AI Act requirement	Romania	Comparative benchmark	Practical takeaway for Romania
	AI systems used by public institutions.	circumstances, risks and intended purpose of the system.	disregard or override the system's output where necessary.
Transparency and explanation	For ECRIS, the public materials reviewed for this article do not disclose, in sufficient detail, the code, allocation methodology and applicable exceptions. This finding concerns the public availability of information and does not establish that all automated systems used in Romania are opaque or that ECRIS is an AI system under the AI Act.	France provides a statutory example of algorithmic transparency in administrative decision-making. Article L. 311-3-1 of the *Code des relations entre le public et l'administration* requires information concerning an individual administrative decision based on algorithmic processing, while Article R. 311-3-1-1 specifies information concerning the contribution of the algorithmic processing, the data processed, the parameters applied and the operations carried out[23].	Romania should distinguish between transparency concerning the existence and operation of an automated system, the reasons for an individual decision and the technical documentation protected by legitimate confidentiality interests. Any general right to explanation should be formulated consistently with the applicable administrative, judicial, data-protection and sectoral rules.
Conformity assessment, monitoring and audit	The materials reviewed for this article do not disclose the methodology or findings of the external audits referred to in relation to the computerized random-allocation system[24]. This does not establish the absence of such audits. Nor does the	EU-level benchmark: the AI Act provides conformity-assessment procedures for high-risk AI systems in Articles 43–49 and requires providers to establish and document a post-market monitoring system under Article 72. Periodic audits are expressly provided in	Romania should ensure that the competent authorities designated under Article 70 have the powers and resources necessary for supervision and enforcement and should require appropriate documentation, monitoring and

[23]*Code des relations entre le public et l'administration*, Articles L. 311-3-1 and R. 311-3-1-1, as reproduced and discussed in Council of Europe, "Artificial Intelligence and Administrative Law", CDCJ(2022)31E, 7 December 2022, available at: https://www.coe.int/documents/22298481/0/CDCJ%282022%2931E+-+FINAL+6.pdf/4cb20e4b-3da9-d4d4-2da0-65c11cd16116?t=1670943260563

[24]Constitutional Court of Romania, Decision no. 33 of 23 January 2018, available at: https://www.ccr.ro/wp-content/uploads/2020/07/Decizie_33_2018-1.pdf

AI Act requirement	Romania	Comparative benchmark	Practical takeaway for Romania
	AI Act justify describing ECRIS as a high-risk AI system without first establishing that a concrete ECRIS functionality is an AI system and falls within a relevant high-risk category.	Annex VII, point 5.3, in the context of surveillance of an approved quality-management system. The AI Act does not impose a general obligation to conduct participatory social audits of all high-risk AI systems[25].	review of high-risk AI systems. The establishment of a separate independent national audit authority may be considered as a policy option, but it should not be presented as an obligation expressly imposed by the AI Act.

Source: Author's own creation

Digitalisation of Justice: What We Gain and What We Risk When Algorithms Decide

Digitalisation of justice raises essential questions about balance, access and transparency. The present discussion focuses on the point at which digital tools used in court administration may affect the safeguards of judicial decision-making. The central issue is therefore not digitalisation as such, but whether automated mechanisms remain transparent, controllable and compatible with due process.

A first form of automation is that of random allocation of files, which was historically regulated in Romania by art. 53(1) of Law no. 304/2004 on judicial organization and is currently regulated by art. 34(1) of Law no. 304/2022[26]. The current concern is therefore the transparency and controllability of the ECRIS mechanism under the present legal framework. Although ECRIS is designed to reduce the risk of subjective allocation, the public materials reviewed for this article do not disclose, in sufficient detail, the code, the allocation methodology and the applicable exceptions. The resulting concern is one of public transparency and controllability under the present legal framework.

ECRIS has developed through successive versions, with ECRIS IV introducing several changes relevant to the transparency and controllability of judicial case management. In a 2010 statement, the Ministry of Justice explained that ECRIS IV preserved the documents already existing in ECRIS III and introduced, among other changes, a more complex random-allocation function, restrictions on the deletion of certain case-file documents, the possibility of verifying when procedural fields had been completed, automatic reporting where the initially allocated judicial

[25]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, Articles 14, 43–49 and 70–72, and Annex VII, point 5.3, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727

[26]Law no. 304/2004 on judicial organization, Article 53(1), in the version applicable before its repeal; Law no. 304/2022 on judicial organization, Article 34(1), current version.

panel had been deleted or changed and automated statistical functions[27]. A further major update, launched in February 2013 in connection with the entry into force of the new Code of Civil Procedure, enabled the system to flag multiple cases involving the same subject matter, the same claimant names and the same personal identification numbers, allowing the competent court staff to examine possible attempts to manipulate random allocation[28].

ECRIS V represents a further development of the case-management infrastructure rather than merely a minor update of ECRIS IV. Official institutional information describes the implementation of a new ECRIS V case-management system for courts and prosecution offices. ECRIS V should therefore be described as a system under development and implementation, while ECRIS IV remains the system whose allocation and transparency features are examined in the present discussion[29].

Naturally, this development raises serious questions about the compatibility of automated decision-making with traditional safeguards of due process. The relevant question is whether a case-allocation mechanism is sufficiently transparent and controllable to preserve public confidence in the administration of justice.

Digital tools may assist legal research and the analysis of case-law, but their use does not remove the need for judicial reasoning and applicable legal safeguards. The risk that predictive tools could be treated as a substitute for judicial reasoning should therefore be assessed based on the concrete functionality and safeguards of each system.

A digitized justice system must also account for differences in access to technological resources, connectivity and digital skills among the actors involved, including judges and litigants.

The use of algorithmic mechanisms also requires training enabling judicial actors to understand their operation, assess their limitations and challenge their outputs. Without such capacity, technology risks being used formally, without effective oversight of how it may influence judicial work.

From a fundamental rights perspective, a central issue remains whether concrete digital tools used in the justice system have been subject to a documented ex ante assessment of their potential effects on equality, privacy and effective access to a court. The AI Act is directly applicable in the Member States and does not require transposition in the manner of a directive[30]. For Romania, the relevant issues include the designation and operationalization of the competent authorities, the adoption of any necessary national implementing measures and the application of the Regulation to concrete systems.

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[27]Ministry of Justice of Romania, official statement concerning the implementation and functionality of ECRIS IV, 2010, exact title, date of publication and official URL.

[28]Ministry of Justice of Romania, official information concerning the ECRIS update launched in February 2013, exact title, date of publication and official URL.

[29]European Commission, 2023 Rule of Law Report – Country Chapter on the rule of law situation in Romania, Commission Staff Working Document SWD(2023) 823 final, 5 July 2023, section concerning the implementation of the ECRIS V case-management system, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023SC0823; see also Romanian Government, written contribution to the European Rule of Law Mechanism, 2024, section concerning ECRIS V, available at: https://commission.europa.eu/document/download/23555ef7-afe9-4d0b-80a3-b909573 959bf_en

[30]Regulation (EU) 2024/1689, Article 113.

Under Article 6(2) of the AI Act, read in conjunction with Annex III, point 8(a), an AI system intended to be used by a judicial authority, or on its behalf, to assist in researching and interpreting facts and law and in applying the law to a concrete set of facts is classified as high-risk, subject to the exception provided by Article 6(3)[31]. Article 6(3) excludes from the high-risk classification certain systems referred to in Annex III where the provider documents that they do not pose a significant risk of harm to health, safety or fundamental rights, including because they do not materially influence the outcome of decision-making. However, neither the use of a digital tool in the justice system nor its influence on case allocation automatically results in a high-risk classification. The assessment must first establish whether the concrete functionality qualifies as an AI system under Article 3(1) of the Regulation and must then consider its specific intended purpose, its relationship with Annex III and any applicable exclusion[32].

ECRIS should therefore not be characterized as an AI system solely based on its automated case-management functions. The public materials examined here do not provide sufficient technical documentation to determine whether any ECRIS functionality qualifies as an AI system under the AI Act or, if so, falls within a high-risk category. For already implemented applications, including the case-management system or tools used for sorting repetitive requests, the materials reviewed for this article do not disclose whether documented assessments have been conducted concerning their effects on equality, privacy or effective access to a court.

Although the Constitutional Court has referred to periodic external auditing of the computerized random-allocation system, the materials reviewed for this article do not disclose the methodology or findings of such audits. The relevant transparency concern is therefore not the absence of an audit mechanism as such, but the limited public availability of information concerning the audit process and its results. In particular, the public materials reviewed for this article do not disclose whether the ECRIS allocation mechanism has been independently assessed about the scope and methodology of the random-allocation process or its vulnerability to manipulation33.

Moreover, limited explainability and reviewability in algorithmic decisions can create systemic risks. Without integrating appropriate safeguards - such as traceability logs, ethical reviews and human oversight - the Romanian judiciary may remain exposed to structural biases embedded in digital tools.

Ensuring that the implementation of ECRIS V and any subsequent ECRIS developments comply with the applicable legal and institutional safeguards should be treated as a legal and ethical priority, not merely as a technical upgrade. If a particular ECRIS functionality qualifies as an AI system and falls within a high-risk category under the AI Act, the corresponding obligations must also be assessed and applied. Transparency reports, stakeholder consultations, and judicial user training should accompany any implementation that touches upon fundamental rights. For this reason, the discussion should focus on whether the current Romanian

[31]Regulation (EU) 2024/1689, Article 6(2) - (3) and Annex III, point 8(a).
[32]Regulation (EU) 2024/1689, Articles 3(1) and 6(2) - (3), Annex III, point 8(a).
[33]Constitutional Court of Romania, Decision no. 33/2018, passages referring to the periodic external auditing of the computerized random-allocation system.

framework offers sufficient guarantees of human oversight, traceability and effective review.

Artificial Intelligence and Digitalisation of Public Administration in Romania

When we talk about the digitization of administration in Romania, the image of a modern state often comes to mind, where everything is solved quickly online, without unnecessary travel, queues or lost papers. It is a beautiful image, often found in official strategies and plans. But if we descend from the pages of these documents into everyday life, things get complicated. Citizens encounter a much more varied reality: with well-intentioned but unevenly implemented initiatives, with old obstacles and solutions that do not reach everywhere.

An example often invoked is the Ghișeul.ro platform. The Guide to the Digitalisation of Public Institutions, published by the Ministry of Research, Innovation and Digitalisation, identifies Ghișeul.ro among the digital solutions relevant to the provision of public services. However, the guide does not by itself establish that the platform reduced bureaucracy, that it is used uniformly in communes and small towns, or that digital public services are universally accessible[34].

According to the 2024 Digital Decade data presented by the Authority for the Digitalisation of Romania, Romania's score for the digitalisation of essential public services increased by 20.2%, compared with an increase of 3.6% at EU level. The score for the online provision of essential cross-border public services increased by 45.1% in Romania, compared with 4.3% at EU level. These figures indicate progress in the relevant indicators, although they do not by themselves establish that digital public services are uniformly accessible throughout the country[35].

Romania has no shortage of digital projects. On the contrary, it has many initiatives, many of them supported by European funds, that show that the will to modernize exists. But profound transformation is delayed. And the obstacles are largely the same: norms that do not match each other, platforms that do not communicate and an institutional culture that is sometimes afraid of the new. As the specialized literature also notes, digitalisation cannot advance in the absence of a coherent framework and a real administrative reform.

Digitalisation does not just mean servers and applications. It also means people who know how to use them. The National Agency of Civil Servants

[34]Ministry of Research, Innovation and Digitalisation, Guide to the Digitalisation of Public Institutions, July 2024, available at: https://www.mcid.gov.ro/wp-content/uploads/2024/07/20240702 Ghidul_ Digitalizarii.pdf.

[35]European Commission, State of the Digital Decade 2024, COM(2024) 260 final, 2 July 2024, including the Romania country data in the annexes, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52024DC0260; Authority for the Digitalisation of Romania, "Progrese semnificative în digitalizarea României/Significant progress in Romania's digitalization", available at: https://adr.gov.ro/articole/progrese-semnificative-in-digitalizarea-romaniei.

established a target of training 32,500 public servants in digital skills by June 2026. In June 2026, the Agency reported that the target had been exceeded[36].

The differences between regions are hard to ignore because the imbalance generates inequalities. If the state does not actively intervene to correct them, there is a risk of creating a digital administration that excludes precisely the most vulnerable. As research in the field has shown, digital inequality can become a fundamental rights issue.

The European Commission's 2024 country assessment described Romania's performance in digital public services as low and highlighted ongoing efforts to establish a governmental cloud and an interoperability portal and framework. Platforms such as Ghișeul.ro provide forms of digital interaction with public administration, but these developments do not by themselves establish system-wide interoperability or a comprehensive framework for the governance of artificial intelligence in public administration[37].

From a normative standpoint, digital governance refers not only to the use of information technologies in public institutions, but also to the legal and ethical structures that ensure transparency, accountability, and inclusion in these processes. When AI is deployed in administrative decision-making - such as in automated tax scoring, citizen profiling or social-benefit eligibility - some uses may fall within high-risk categories under Article 6 and Annex III, while others may be subject to different obligations or fall outside a particular obligation of the Regulation, depending on the system's intended purpose and design. Where high-risk classification applies, the Regulation establishes requirements including risk management, data governance, technical documentation, record-keeping and human oversight, alongside other applicable safeguards. From this perspective, the challenge is not merely technical, but one of governance. Regulating artificial intelligence becomes a balancing act between the need for modernization and the obligation to protect citizens from unintended or unfair consequences[38].

Romania's framework for algorithmic transparency in public administration remains under development. The materials reviewed for this article do not establish the existence of a comprehensive Romanian public registry covering all AI systems used in public administration. The practical risks therefore concern not only the availability of digital services, but also the ability of persons with limited digital skills, access or procedural literacy to understand and use them effectively.

[36]National Agency of Civil Servants, "Dezvoltarea competențelor digitale/ Developing digital skills", including the target of 32,500 trained public servants, available at: https://www.anfp.gov.ro/proiecte/proiecte-in-implementare/proiecte-pnrr/proiecte-pnrr-lista/dezvoltarea-competentelor-digitale/; national. Agency of Civil Servants, "ANFP, finalistă în competiția European Digital Skills Awards 2026/ ANFP, finalist in the European Digital Skills Awards 2026 competition", 3 June 2026, available at: https://www.anfp.gov.ro/anunturi/anfp-finalista-in-competitia-european-digital-skills-awards-2026/.

[37]European Commission, State of the Digital Decade 2024, COM(2024) 260 final, 2 July 2024, Romania country section, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52024DC0260; see also Authority for the Digitalisation of Romania, "Progrese semnificative în digitalizarea României/ Significant progress in Romania's digitalization", available at: https://adr.gov.ro/articole/progrese-semnificative-in-digitalizarea-romaniei.

[38]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, Articles 6, 9–15 and Annex III, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

These challenges require not only technical investment but also the operational implementation and enforcement of the AI Act, supplemented where necessary by national institutional and procedural measures.

Artificial Intelligence in Education: between Potential and Caution

Education has not remained immune to the wave of transformations brought by digitalisation and, more recently, artificial intelligence.

In Romania, the introduction of AI into the educational process raises questions that concern both technological opportunities and pedagogical safeguards. The experience of the COVID-19 pandemic also showed that the digitalisation of education must be assessed together with access, infrastructure and the capacity of schools and families to use digital tools effectively.

A first aspect worth discussing is how Romanian schools adapted to the rapid shift towards digital learning during the COVID-19 pandemic. In 2020, the physical closure of educational institutions required schools and families to use digital learning tools on a large scale. European policy reporting identified the lack of suitable digital devices and unequal online-learning conditions as material barriers to distance education. These issues are relevant to the Romanian context, but the specific magnitude of the Romanian participation gaps should be stated only based on a Romanian source[39].

Potential uses of AI in education include automated feedback, adaptive learning and administrative support. Their use raises distinct questions concerning educational quality, data protection, human oversight and the assessment of possible effects on students. Any reference to a specific Romanian pilot project, its results or its non-expansion should be retained only if the project documentation is identified by its exact title, institution, date and official source.

Deeper than the technology issue, however, is the question: what kind of education do we want to build with the help of AI? If we view AI only as a tool for efficiency – less paper, fewer hours to correct – we risk losing sight of the human stakes of education: the formation of critical thinking, the cultivation of empathy, the development of creativity. However, these dimensions cannot be taught by algorithms. Can AI be an ally in learning? Of course. But it must remain an ally, not a substitute.

Another sensitive aspect concerns access. If AI tools are introduced in an educational environment in which access to devices, connectivity and digital skills differs between schools and students, they may deepen existing inequalities. Any assessment of the Romanian situation should therefore distinguish between documented differences in access and the broader risk of creating a two-speed education system.

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[39] European Commission, Commission Staff Working Document accompanying the proposals for a Council Recommendation on enabling factors for successful digital education and training, SWD(2023) 205 final, 18 April 2023, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023SC0205; European Commission, Commission Staff Working Document accompanying the Digital Education Action Plan 2021–2027, SWD(2020) 209 final, 30 September 2020, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020SC0209.

The introduction of AI also requires teachers to receive training enabling them to understand the operation, limitations and educational implications of the tools used. Without adequate institutional support and continuing professional development, the benefits of AI may be distributed unevenly among schools and students.

Finally, an essential question concerns the protection of student and teacher data. AI-enabled educational applications may process personal data and, depending on their functionality, may raise issues concerning profiling, biometric data or the inference of emotional states. Their use must therefore be assessed under the applicable data-protection, education and artificial-intelligence rules. The AI Act prohibits certain emotion-recognition practices in educational institutions and classifies certain AI uses in education as high-risk, depending on their intended purpose and functionality[40].

Overall, AI in education can bring real progress – personalization of learning, ad-ministrative efficiency, prediction of learning difficulties. But for these benefits not to turn into new forms of exclusion, we need four fundamental conditions: (1) continuous training of teachers, (2) investment in rural digital infrastructure, (3) clear regulations on data protection and (4) involvement of students and parents in decisions on digitalisation.

Education is not a testing ground for technologies. It is, above all, a space of the human. Artificial intelligence can help the school, but it must not redefine it. And the lesson of the pandemic has shown us clearly: without equity, without dialogue and without respect for the role of the teacher, no platform, no matter how "smart" it may be, will succeed in educating a society.

The use of digital education tools during and after the COVID-19 pandemic has raised questions concerning the conditions under which AI-powered systems may be introduced in education. Tools such as automated assessment, administrative chatbots and adaptive learning systems require a case-by-case assessment of their functionality, data processing, educational effects and applicable legal safeguards.

Where such tools are used in Romania, schools and providers should clearly inform students and parents, where applicable, about the purposes of the processing, the role of the system in the educational process, the applicable safeguards and the possibility of meaningful human intervention. These requirements are relevant to informed consent, equal treatment and the dignity of learners.

The existence of strategic documents on artificial intelligence and digitalisation does not by itself establish a fully operational framework for assessing the impact of AI on learning. Without effective assessment and oversight, digital education may deepen existing inequalities and reduce students to behavioural data points, thereby affecting their autonomy and access to a holistic education[41].

[40]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence, Article 5(1)(f), Article 6 and Annex III, point 3, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

[41]Ministry of Research, Innovation and Digitalisation, National Strategy on Artificial Intelligence 2024–2027, July 2024, available at: https://www.mcid.gov.ro/wp-content/uploads/2024/07/20240723_SNIA_2024-2027.pdf; Regulation (EU) 2024/1689, Articles 5–6 and Annex III, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727.

The discussion on the regulation of artificial intelligence in Romania is no longer just a theoretical exercise, but a practical urgency. Although the European framework, including the AI Act[42], provides clear directions, implementing these requirements in the national context is not a mechanical operation. It involves a deep understanding of institutional realities, structural vulnerabilities and, above all, administrative limits.

Romania is required to apply a European framework governing one of the most technologically demanding areas, while also adapting that framework to its own institutional and administrative arrangements. That is precisely why normative proposals on AI must start from a simple but essential principle: regulation is not about technology, but about people.

A first possible direction would be to strengthen the national institutional structure for monitoring artificial intelligence systems, including through an independent or functionally independent component where appropriate. This institution should have supervisory, advisory and intervention powers in cases of systemic risk – like the existing models for data protection (ANSPDCP) or for competition (Competition Council). Unlike these, how-ever, the authority for AI would have a transdisciplinary profile, including specialists in law, ethics, technology, but also representatives of civil society.

Secondly, regulation should consider the gradual and adaptive nature of technological development. However, universalist legislation, with provisions that are difficult to update, risks quickly to become outdated. Therefore, a viable solution would be to adopt flexible framework legislation, accompanied by good practice guides developed periodically, with the participation of the actors involved (public institutions, academia, NGOs, private sector). However, such flexibility must remain bounded by clear statutory minimum standards, transparent criteria and legally reviewable obligations, so that essential safeguards are not left to soft law or administrative discretion. The aim is not to replace law with guidelines, but to combine adaptive legislative architecture with binding core requirements. In this way, regulation could evolve in step with reality, without remaining stuck in fixed definitions or technocratic metaphors.

A concrete example of this would be the introduction of minimum obligations for all public authorities using AI systems: the obligation to publish the description of the algorithm used (where possible without infringing intellectual property rights), to carry out impact assessments on fundamental rights and to ensure human intervention in all automated decisions that adversely affect a person. This obligation - inspired by the AI Act - could be detailed through ministerial orders or government decisions, without the need for major legislative amendments.

Another proposal, this time of an educational and ethical nature, aims to introduce a mandatory component of digital and algorithmic literacy in professional training programmes in administration, justice, education and health. Without a minimum basis for understanding how algorithmic systems work, the ability of professionals to identify discrimination, decisional opacity or systemic error may remain limited.

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[42]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024, Articles 5–6, 14 and Annex III, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/ legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727

Regarding the protection of vulnerable categories, special attention is needed in the regulation of AI applications used in sensitive areas such as education, social assistance or employment. For example, any algorithm that decides or influences the granting of a social benefit should be subject to a double assessment: technical (regarding its accuracy and robustness) and social (regarding the possible reproduction of pre-existing inequalities). This avoids technology becoming just a "cold mirror" of already existing discriminations.

In the medium term, Romania could adopt a "regulatory sandbox" model for re-sponsible innovation. Such a mechanism could allow the controlled testing of AI solutions within a supervised legal and institutional framework. The advantage is twofold: innovation is not blocked by rigid regulations, and the state actively learns about risks and good practices. Such a sandbox could operate under the aegis of an ARACIS-type institution for digital education or in partnership with academia and technology incubators.

Finally, it is essential that AI regulation in Romania includes clear mechanisms for transparency and public participation. Because the design and implementation of digital policies may affect different groups in different ways, public participation should be treated as an important safeguard of legitimacy and accountability. Therefore, any draft regulatory act on AI should be subject to a genuine public debate, accompanied by impact analyses and intersectoral consultations. Not only experts must have a say, but also those directly affected by these technologies: teachers, students, civil servants, beneficiaries of public services, people with disabilities.

In conclusion, the regulation of artificial intelligence in Romania should not be a purely technological approach, nor a simple formal alignment with EU standards. It is, rather, an opportunity to redefine the social contract in a digital age. If AI is the mirror of a society, then the quality of its regulation will reflect not only the technological maturity of the state, but also its democratic maturity. And Romania has, precisely here, the chance to become not just a beneficiary, but a regional model of ethical, responsible and inclusive regulation of new technologies. Inevitably, the regulation of AI in Romania must be viewed in the context of an administrative culture of responsibility and prudence. It is not enough to import European mechanisms; they must be calibrated, internalized and adapted. Therefore, a national strategy on AI and human dignity is needed, developed with the active participation of all relevant actors. This should contain clear objectives, evaluation indicators, sectoral plans (education, justice, health, administration), a realistic implementation calendar and sanction mechanisms in case of non-compliance with the rules.

Romania can build its AI policy on existing European obligations, national strategic documents and the expertise developed by public institutions, academia, civil society and the private sector. For AI regulation not to remain merely a policy aspiration, institutional capacity, democratic responsibility and a human-centred vision are needed. But for AI regulation to not remain just a conference topic, institutional courage, democratic responsibility and a human-centred vision are needed. Technology is a means; human dignity must remain the goal.

Ethics of Dialogue: How to Build Trust in Digital Governance

Participatory ethics is not only a theoretical formula, but a practical necessity in AI governance. Artificial intelligence develops within society and influences choices, behaviour patterns and decision-making processes. It involves more than symbolic consultations or online questionnaires; it requires a deliberative process in which citizens' voices become part of the regulatory framework that governs technology.

Universities also have a key role in shaping participatory ethics. Beyond training specialists in artificial intelligence, they should remain spaces for reflection on consequences, interdisciplinary collaboration and critical debate. Through research and public engagement, academia can help develop ethical standards, identify risks ignored by industry or policymakers, and act as a democratic watchdog in algorithmic governance. This requires collaboration between computer science, law, philosophy, sociology and political science.

The AI Act establishes Union-level governance structures and provides for the participation and advice of relevant stakeholders in the development and implementation of the Union framework for artificial intelligence. It therefore supports a human-centred approach to AI governance, but it does not establish a general obligation to involve citizens in every testing, validation or monitoring process concerning an AI system[43]. The practical scope of public participation depends on the applicable legal framework and institutional arrangements. In Romania, the existence and quality of public consultation should be assessed based on the specific policy or regulatory process concerned.

When decisions that influence people's lives are made by systems that are not well understood by those affected, mistrust arises. Artificial intelligence then risks being perceived less as a helping technology and more as a mechanism of control.

Participatory ethics is not just about being informed. It means having places where people can speak openly, platforms to have their say, and real collaborations between those who create the systems, authorities and vulnerable communities. Finland's AuroraAI project provides a relevant example of a public-sector initiative aimed at promoting the use of artificial intelligence in public services[44]. Its participatory features and practical effects should not, however, be generalised without reference to the specific project documentation. Such initiatives could also be adapted in Romania, especially in large digitization projects financed by the PNRR.

At the same time, it is essential that participatory ethics are supported by a coherent institutional infrastructure. It is not enough for civil society to be "invited" to the table. Its voice needs to matter. This involves, on the one hand, the

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[43]Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024, in particular Articles 65–68 on Union governance and stakeholder advice, and Recitals 27 and 165, consolidated version of 27 July 2026, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02024R1689-20260727; Ministry of Research, Innovation and Digitalisation, Explanatory Note to the draft Government Decision approving the National Strategy on Artificial Intelligence 2024–2027, January 2024, section concerning public consultation, available at: https://www.mcid.gov.ro/wp-content/uploads/2024/01/nota-de-fundamentare-proiect-hg_SN-IA_30.012024.pdf.

[44]European Commission, Finland's National Reform Programme 2023, section on public-sector digitalisation and AuroraAI, available at: https://commission.europa.eu/system/files/2023-04/Finland-NRP-2023_en.pdf.

formation of multidisciplinary advisory committees and, on the other hand, the development of performance indicators that reflect not only technological efficiency, but also the satisfaction and ethical perception of beneficiaries.

Finally, we cannot talk about a fair regulation of artificial intelligence without an ethical process anchored in social reality. Participatory ethics is not a "normative luxury", but a condition of democratic sustainability. In an age where algorithmic systems may influence decisions concerning access to social housing or educational grants, the voices of those affected cannot be treated as background noise. On the contrary, they must be transformed into benchmarks for building responsible and inclusive governance.

Conclusion: Dignity as the Limit of AI Governance

There are concepts that no technology, no matter how sophisticated, should call into question. Human dignity is one of them. It is not just a solemn formulation in European treaties or an abstract principle of constitutional law. It is that compass that helps us distinguish between what is technologically possible and what is humanly acceptable.

In this context, dignity becomes the ultimate validation criterion.

The European Union has tried to answer these questions through the AI Act, introducing risk criteria and guiding principles. This article has shown that, in the Romanian context, the decisive issue is not the absence of EU rules, but the gap between formal compliance with the Regulation and effective institutional implementation. Its contribution lies in demonstrating that the protection of human dignity depends not only on the text of the AI Act, but also on administrative capacity, transparency and genuine oversight at national level.

In Romania, the discussion of dignity in relation to AI is still at an early stage. But between an online form and an algorithm that decides whether a child is entitled to a scholarship, there is a difference of nature, not just of degree. Any use of AI that can influence a person's life should be subjected to a test of dignity: does it respect the person or reduce them to a score?

The solutions are not simple, but they are possible. We can introduce ethical assessments before the deployment of AI systems, with the direct involvement of the persons affected. We can require appropriate conformity assessment, monitoring and independent review mechanisms for high-risk systems, where provided for by the applicable legal framework. We can demand real transparency, not only through documents, but also through accessible and easy-to-understand interfaces.

We may never be able to define exhaustively what it means to respect human dignity in the age of algorithms. But it is precisely this uncertainty that compels us to be cautious. We cannot let this line be drawn exclusively by engineers, lawyers or bureaucrats. For AI regulation not to remain merely a policy aspiration or a conference topic, institutional capacity, democratic responsibility and a human-centred vision are needed.

Bibliography

Aït-Bouziad, I., Raji, I. D., & Buolamwini, J. (2023) Accountability for AI under the Law: The Role of Participatory Auditing. *AI & Society*.

Boura, M. (2024) The Digital Regulatory Framework through EU AI Act. *Athens Journal of Law*, Volume 10, Issue 3, July 2024, pp. 385-398, https://www.athensjournals.gr/law 2024-10-3-8-Boura.pdf

Eubanks, Virginia (2018) *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor.* New York: St. Martin's Press.

European Commission (2021) Commission Staff Working Document SWD(2021) 84 final: Impact Assessment accompanying the Proposal for a Regulation laying down harmonised rules on artificial intelligence. Brussels, 21 April 2021. Available at: https://eur-lex. europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021SC0084

European Commission (2022) *Ethics Guidelines for Trustworthy AI.*

European Commission (2023) *Finland's National Reform Programme 2023, section concerning public-sector digitalisation and AuroraAI.* Available at: https://commission.europa.eu/sys tem/files/2023-04/Finland-NRP-2023_en.pdf.

European Commission (2024) *Digital Economy and Society Index* (DESI): Romania Country Report.

European Commission (2024) *Digital Education Action Plan – Monitoring Report.*

European Commission (2025) State of AI Readiness in Member States: Country Dashboard.

European Court of Human Rights. Pretty v. UK, Application no. 2346/02 (2002).

European Parliament and Council of the European Union (2024) 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, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/ EU, (EU) 2016/797 and (EU) 2020/1828. Official Journal of the European Union, L 2024/1689, 12 July 2024. Available at: https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng.

European Union (2012) Charter of Fundamental Rights of the European Union. *Official Journal of the European Union*, C 326, 26 October 2012, pp. 391–407. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT

Fiorino, D. J. (1990) Citizen participation and environmental risk: A survey of institutional mechanisms. *Science, Technology, & Human Values*, Volume 15, Issue 2, https://doi.org/ 10.1177/016224399001500204

Floridi, L. (2019) Establishing the rules for building trustworthy AI. *Nature Machine Intelligence*, 1(6), 261–262.

Floridi, L. (2023) Ethics, Democracy and AI Governance. *Minds and Machines.* DOI: 10.1007/978-3-030-81907-1

Floridi, L., & Cowls, J. (2019) A Unified Framework of Five Principles for AI in Society. *Harvard Data Science Review*, 1(1). https://hdsr.mitpress.mit.edu/pub/l0jsh9d1/release/8

Habermas, J. (1996). *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. MIT Press.

Law no. 2016-1321 (France) on the Digital Republic.

McCrudden, Christopher (2008) Human Dignity and Judicial Interpretation of Human Rights. *European Journal of International Law*, 19(4), 655–724. Available at: https://academic.oup.com/ejil/article/19/4/655/421093.

Pihlajamaa, M., Ruohonen, J., & Hyrynsalmi, S. (2020) AuroraAI: Building a Hu-man-Centric AI-Powered Public Administration in Finland. *Government Information Quarterly.*

Sarra, C. (2025) Artificial Intelligence in Decision-making: A Test of Consistency between the EU AI Act and the GDPR. *Athens Journal of Law*, Volume 11, Issue 1, January, pp. 45-62, https://www.athensjournals.gr/law/2025-11-1-3-Sarra.pdf

Smuha, E. (2021) Artificial Intelligence for a Better Future: An Ecosystem Perspective on the Ethics of AI and Emerging Digital Technologies. *Springer*. https://doi.org/10.1007/978-3-030-69978-9.

Stahl, B. C. (2021) *Artificial Intelligence for a Better Future: An Ecosystem Perspective on the Ethics of AI and Emerging Digital Technologies*. Springer Publishing Company, https://doi.org/10.1007/978-3-030-69978-9

UNESCO (2023). AI and the Futures of Learning: Policy Guidance for Education Systems Worldwide

United Nations (1948) Universal Declaration of Human Rights. Adopted by General Assembly resolution 217 A (III) of 10 December 1948. Available at: https://www.ohchr.org/en/human-rights/universal-declaration/translations/english

Veale, Michael, & Borgesius, Frederik Zuiderveen (2021) Demystifying the Draft EU Artificial Intelligence Act: Analysing the Good, the Bad, and the Unclear Elements of the Proposed EU Regulation. *Computer Law Review International*, 22(4), 97–112. https://doi.org/10.9785/cri-2021-220402

Wachter, S., Mittelstadt, B., & Floridi, L. (2021). Why Fairness Cannot Be Automated: Bridging the Gap Between EU Non-Discrimination Law and AI. *Computer Law & Security Review*, 35(4), 105-110.

Zuboff, Shoshana (2019) *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs, https://www.hbs.edu/faculty/Pages/item.aspx?num=56791

Legislation, Case Law and Official Institutional Sources

Law no. 304/2004 on judicial organisation, Article 53(1), version applicable to the period discussed.

Law no. 304/2022 on judicial organisation, Article 34(1), official version consulted.

Constitutional Court of Romania, Decision no. 33/2018, official version consulted.

Law no. 2016-1321 (France) on the Digital Republic.

Code des relations entre le public et l'administration, Articles L. 311-3-1 and R. 311-3-1-1, official version consulted.

ANCOM, "Regulamentul privind inteligența artificială în România – stadiul actual al cadrului de implementare"/ Regulation on artificial intelligence in Romania – current status of the implementation framework, 24 July 2026, available at: https://www.ancom.ro/despre-noi/media/comunicate-de-presa/regulamentul-privind-inteligenta-artificiala-in-romania-stadiul-actual-al-cadrului-de-implementare/.

Athens Journal of Law - Volume 12, Issue 4, September 2026 – Pages 269-298

Transforming the Insurance Landscape: Digitalization Trends and Regulatory Challenges in Hong Kong

By Helen Han Peng[*] & Nicole Cao Ying[±]

Hong Kong, recognized as a preeminent international insurance hub, is experiencing a significant transformation in its traditional insurance landscape, primarily driven by the rise of Insurtech startups, including fully virtual insurers. This evolution is further supported by proactive regulatory initiatives from the Hong Kong Insurance Authority, aimed at enhancing operational efficiency and transparency within the sector. This paper provides a comprehensive comparative analysis of the digitalization of insurance in Hong Kong and Singapore, elucidating the current status and advancements in both regions. Additionally, it identifies potential challenges that may hinder the future development of the digital insurance sector in Hong Kong and offers insights to promote the digitalization process while addressing the regulatory complexities associated with Insurtech and virtual insurance. Despite the currently limited market share of digital insurers in Hong Kong, the momentum for transformation is undeniable, bolstered by technological advancements and an increasing demand within the Greater Bay Area market.

Background

Hong Kong's insurance industry continues to exhibit a significant reliance on traditional sales methodologies. Research indicates that the region has lagged behind both Singapore and Western markets in the adoption of digital insurance solutions, largely due to the industry's dependence on approximately 120,000 agents, particularly in the realm of life insurance products.[1] Insurance agents play a crucial role in providing guidance throughout the decision-making process for such products, which entail long-term commitments.

Historically, the insurance sector has been characterized by an intermediary-led distribution model, wherein agents, brokers, and banks serve as the primary channels for policy sales. This paradigm, however, presents multiple challenges, including elevated operational costs and limited direct access to customers. Nevertheless, the digital insurance landscape, spearheaded by virtual insurers, is experiencing rapid growth, with premiums escalating significantly between 2020 and 2021. This trend underscores the potential for a direct-to-consumer (D2C) digital distribution model to deliver more efficient solutions.[2]

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[1]Enoch Yiu, "Hong Kong's digital insurance lags behind Singapore and Western peers over reliance on 120,000 sales agents, study shows," *South China Morning Post* (2023), available at https://www.scmp.com/business/markets/article/3209155/hong-kongs-digital-insurance-lags-singapore-and-western-peers-over-reliance-120000-sales-agents (visited 14 Sept 2024).

[2]Quinlan & Associates, *Examining the case for direct-to-consumer digital distribution in Hong Kong's insurance industry* (2022), available at https://www.quinlanandassociates.com/wp-content/uploads/2022/12/Digital-Distribution-of-Insurance.pdf (visited 14 Sept 2024).

Literature Review and Research Gap

Digitalization and technological innovation are driving an unprecedented shift in the insurance industry, combining digital and analog settings to improve operations, data accessibility, and consumer interactions. This trend, according to Eling and Lehmann, could be defined as digitalization, which radically changes the way insurance companies' function.[3] Modern insurance practices require the integration of digital insurance administration systems and Insurtech solutions.[4] "Insurtech" describes technological advancements intended to boost effectiveness across underwriting and customer service. The industry is changing through technologies such as big data analytics, cloud computing, and artificial intelligence (AI), enabling insurers to collect large volumes of data, improve risk assessment, and enhance customer service.[5][6][7]

To ensure innovation thrives alongside risk management, the regulatory environment needs to evolve[8] with flexible, principle-based approaches to overseeing Insurtech while promoting innovation.[9] In 2012, the Hong Kong Government announced its intention to establish an Independent Insurance Authority to replace the Office of the Commissioner of Insurance (OCI), as detailed in a consultation paper titled "Key Legislative Proposals on the Establishment of an Independent Insurance Authority," published by the Financial Services and the Treasury Bureau. This initiative aimed to enhance regulatory oversight and streamline licensing for insurance intermediaries.[10] The Insurance Companies (Amendment) Ordinance 2015 subsequently conferred upon the Insurance Authority the authority to license and regulate all insurance intermediaries in Hong Kong, centralizing oversight and

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[3]Eling, M., Lehmann, M., "The Impact of Digitalization on the Insurance Value Chain and the Insurability of Risks," *Geneva Pap Risk Insur Issues Pract* 43, 359–396 (2018), available at https://doi.org/10.1057/s41288-017-0073-0 (visited 05 Nov 2024).

[4]Stoeckli, E., Dremel, C. & Uebernickel, F., "Exploring characteristics and transformational capabilities of InsurTech innovations to understand insurance value creation in a digital world," *Electron Markets* 28, 287–305 (2018), available at https://doi.org/10.1007/s12525-018-0304-7 (visited 05 Nov 2024).

[5]Cappiello, A., "The technological disruption of insurance industry: a review," *International Journal of Business and Social Science*, Vol.11, No.1 (2020), available at https://www.ijbssnet.com/journal/index/4371 (visited 05 Nov 2024).

[6]Eti, S., Dinçer, H., Meral, H. et al., "Insurtech in Europe: identifying the top investment priorities for driving innovation," *Financ Innov* 10, 38 (2024), available at https://doi.org/10.1186/s40854-023-005 41-y (visited 05 Nov 2024).

[7]Zarifis A. & Cheng X., "A model of trust in Fintech and trust in Insurtech: How Artificial Intelligence and the context influence it," *Journal of Behavioral and Experimental Finance,* vol. 36, pp.1–20 (2022), available from: https://doi.org/10.10, Available at SSRN: https://ssrn.com/abstract=4223846 (visited 05 Nov 2024).

[8]Stefan Koos, "Digital Globalization and Law," *Lex Scientia Law Review* 6, no. 1 (2022): 33–68, https://doi.org/10.15294/lesrev.v6i1.55092 (visited 05 Nov 2024).

[9]Greineder, M., Riasanow, T., Böhm, M., & Krcmar, H., "The Generic InsurTech Ecosystem and its Strategic Implications for the Digital Transformation of the Insurance Industry," *EMISA FORUM* (2019) (visited 05 Nov 2024).

[10]Meggitt, Gary, "The Hong Kong Independent Insurance Authority," *The Journal of Comparative Law* (2012) 7.2 JCL - Forthcoming, University of Hong Kong Faculty of Law Research Paper No. 2013/030, Available at SSRN: https://ssrn.com/abstract=2290130 (visited 05 Nov 2024).

enhancing regulatory efficacy.[11] This represents a significant shift, as the Insurance Authority acquired expanded powers, enhancing adaptability to the evolving landscape. The Hong Kong Insurance Authority (HKIA) is advancing initiatives such as the virtual insurance licensing framework to promote Insurtech, reflecting a rigorous and dynamic regulatory environment.

The regulatory framework of Singapore, one of Asia's insurance hubs, is adaptable and flexible. Through initiatives that foster innovation, customer protection, and cyber security, the Monetary Authority of Singapore (MAS) acknowledged the potential of Insurtech to redefine traditional models,[12] understanding that regulators must create an environment conducive to innovation.[13] Because of regulatory flexibility, Singapore creates an atmosphere favorable to Insurtech and promotes legislation that fosters digital innovation. Digital transformation has become an imperative for enterprises seeking to uphold competitive advantages.[14] Consequently, more Insurtech companies are entering the market, offering services tailored to evolving expectations,[15] while partnerships between Insurtech companies and traditional insurers foster innovation.[16] The influx of new Insurtech companies highlights the role of regulatory support and industry collaboration in both Hong Kong and Singapore.[17]

Nevertheless, there is a lack of studies focused specifically on insurance digitalization in Hong Kong, and even fewer comparative analyses with Singapore. This study fills the gap by examining how different regulatory approaches influence the development of digital insurance in the two jurisdictions.

Comparative Analysis of Insurtech Development in HK and Singapore

Similarities in Insurtech Development in both jurisdictions

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[11] Insurance authority, *Implementation of New Regulatory Regime for Insurance Intermediaries,* (2019), available at https://www.ia.org.hk/en/supervision/reginsintermediaries/implementation_new_regulatory_regime_for_insurance_intermediaries.html (visited 05 Nov 2024).

[12] Harit, Prakhar, "The Rise of Insurtech: The Ups and Downs of New Tech Trend" (March 7, 2021). Available at SSRN: https://ssrn.com/abstract=3799576 (visited 05 Nov 2024).

[13] International Association of Insurance Supervisors, *FinTech Developments in the Insurance Industry*, at para 17, available at https://www.iaisweb.org/uploads/2022/01/Report_on_FinTech_Developments_in_the_Insurance_Industry.pdf (visited 05 Nov 2024).

[14] Bian, W., Ge, T., Ji, Y., & Wang, X. (2023, Aug), "How is Fintech reshaping the traditional financial markets? New evidence from InsurTech and insurance sectors in China", *China Economic Review*, 80, Article 102004 available at https://doi.org/10.1016/j.chieco.2023.102004 (visited 05 Nov 2024).

[15] Braun, A., Haeusle, N., & Thistle, P., "Risk classification with on-demand insurance," *Journal of Risk and Insurance*, 90(4), 975–990 (2023), available at https://doi.org/10.1111/jori.12429 (visited 05 Nov 2024).

[16] Harit, Prakhar, "The Rise of Insurtech: The Ups and Downs of New Tech Trend" (2021). Available at SSRN: https://ssrn.com/abstract=3799576 or http://dx.doi.org/10.2139/ssrn.3799576 (visited 05 Nov 2024).

[17] Eling, M., Lehmann, M., "The Impact of Digitalization on the Insurance Value Chain and the Insurability of Risks," *Geneva Pap Risk Insur Issues Pract* 43, 359–396 (2018), available at https://doi.org/10.1057/s41288-017-0073-0 (visited 05 Nov 2024).

Hong Kong and Singapore have many similarities in their approaches to Insurtech, including proactive regulatory bodies, innovative sandbox initiatives,[18] emphasis on cybersecurity, and consumer protection. Both regions have developed comprehensive legal frameworks that balance innovation with market stability and consumer protection, positioning themselves as major hubs for Insurtech in Asia.

Proactive Regulatory Bodies with Comprehensive Regulatory Frameworks

HKIA has been instrumental in fostering digital transformation within the insurance sector. Recognizing the growing importance of technology, the HKIA has implemented policies and initiatives that support the development of Insurtech while maintaining safeguards to protect consumer interests. In 2017, the HKIA launched the Insurtech Sandbox and Fast Track initiatives,[19] allowing insurers to experiment with new technologies in a controlled setting and expediting approval processes for digital-only insurers. This framework has facilitated market entry for firms such as Bowtie and ZA Insurance.[20] These initiatives illustrate the HKIA's commitment to balancing innovation with consumer protection. Concurrently, Hong Kong's cybersecurity framework aims to protect financial institutions and personal data from emerging threats through initiatives such as the Cybersecurity Fortification Initiative, along with guidelines from the Hong Kong Monetary Authority (HKMA), Financial Services Development Council (FSDC), and Securities and Futures Commission (SFC), all in alignment with global best practices.[21]

The MAS, through its FinTech and Innovation Group (FTIG), has taken a similarly forward-looking approach. In 2016, the MAS launched the FinTech Regulatory Sandbox,[22] which allows Insurtech companies to trial products in a live environment with relaxed regulations. This encourages firms to experiment with new solutions while maintaining regulatory oversight. Consequently, digital-first insurers like Singlife have emerged, operating through digital channels.[23] The MAS's

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[18]Insurance Authority, *Insurance Digital Onboarding* (2024), available at https://www.ia.org.hk/en/digital_onboarding/promotion_of_insurtech_development.html#:~:text=Initiatives%20to%20promote%20Insurtech&text=Insurtech%20Sandbox%20enables%20authorized%20insurers,supervisory%20requirements%20of%20the%20IA (visited 05 Jan 2025). Monetary Authority of Singapore, *Overview of Regulatory Sandbox* (2024), available at https://www.mas.gov.sg/development/fintech/regulatory-sandbox (visited 05 Jan 2025).

[19]Insurance Authority, Quarterly Release of Provisional Statistics for General Business, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (visited 14 Sept 2024).

[20]Coverager.com, *ZA Insure obtains a digital life insurance license in Hong Kong* (2020), available at https://www.coverager.com/za-insure-obtains-a-digital-life-insurance-license-in-hong-kong/ (visited 14 Sept 2024). Bowtie, *What does IA's "Fast Track" mean* (2021), available at https://help.bowtie.com.hk/hc/en-gb/articles/4407712528153-What-does-IA-s-Fast-Track-mean (visited 14 Sept 2024).

[21]HKMA, *Cybersecurity Fortification Initiative* (2016), available at https://www.hkma.gov.hk/chi/key-functions/international-financial-centre/fintech/research-and-applications/cybersecurity-fortification-initiative-cfi/ (visited 9 Jan 2025). HKIA, *Guideline on Cybersecurity* (2019), https://www.ia.org.hk/en/legislative_framework/files/GL20_Eng.pdf.

[22]Monetary Authority of Singapore, *MAS enhances FinTech regulatory sandbox with Sandbox Plus* (2021), available at https://www.mas.gov.sg/news/media-releases/2021/mas-enhances-fintech-regulatory-sandbox-with-sandbox-plus (visited 14 Sept 2024).

[23]Ka Kay Lum, "Singlife's hybrid theory tested in Singapore's insurance forge," *The Ken* (2020), available at https://the-ken.com/story/singlife-singapore-digital-insurance/ (visited 14 Sept 2024).

regulatory support encompasses not only testing and scaling but also proactive guidelines for cybersecurity and data privacy, thereby enhancing market confidence and promoting the adoption of digital insurance. An example of this is the Cyber Risk Management Project launched in 2016, led by the Insurance Risk and Finance Research Centre (IRFRC) at Nanyang Technological University, aimed at addressing supply and demand challenges in the emerging cyber insurance market.[24]

Both Hong Kong and Singapore have their sights set on becoming leading Insurtech hubs in Asia. These regions foster collaboration and knowledge exchange within the global Insurtech ecosystem and position themselves to attract investment and partnerships from neighboring markets,[25] such as the Greater Bay Area (GBA) for Hong Kong and Association of Southeast Asian Nations (ASEAN) for Singapore, driving their influence beyond their borders, under a well-established regulatory framework for both traditional and digital insurance, with laws governing insurance activities and digital innovations. These regulations ensure that digital innovations comply with legal and ethical standards.[26]

Emphasis on Cybersecurity

Cybersecurity is a paramount concern for Hong Kong and Singapore, particularly as the sector transitions to digital platforms. Both jurisdictions have established cybersecurity frameworks to protect sensitive customer data and safeguard against cyber threats, ensuring that digital insurance platforms remain secure and compliant with evolving risks.

In 2019, the Insurance Authority (IA) of Hong Kong published the Guidelines on Cybersecurity (GL20) under section 133(1) of the Insurance Ordinance (Cap. 41), which took effect on January 1, 2020. These guidelines aim to regulate the insurance industry and protect policyholders from online threats by outlining specific measures insurers must adopt to secure sensitive customer information and operational platforms. Key areas of focus include comprehensive risk management practices that require regular assessments of potential cyber vulnerabilities; robust data protection protocols to safeguard personal and financial information against unauthorized access; and well-defined incident response plans to ensure swift action in the event of cyberattacks or breaches. In Singapore, the Technology Risk Management (TRM) Guidelines were introduced in 2013 to enhance cybersecurity across the financial and insurance sectors, emphasizing risk management, IT security, and protection of digital infrastructure from cyber threats. In 2019, the Monetary Authority of Singapore (MAS) strengthened these measures with the Notice on Cyber Hygiene (MAS Notice 655), mandating critical cybersecurity practices such as user access controls, regular security patching, and data encryption. Together, these frameworks establish comprehensive cybersecurity standards, requiring insurers to implement robust IT security measures, including firewalls, encryption technologies, and intrusion detection systems.

[24]Nanyang Technological University, *Insurance risk and finance research centre*, available at https://www.ntu.edu.sg/irfrc/research/cyrim (visited 14 Sept 2024).
[25]InvestHK, *Fintech HongKong*, available at https://www.hongkong-fintech.hk/en/index.html (visited 14 Sept 2024). Singapore Fintech Festival, *The global gathering of policy, finance & technology*, available at https://www.fintechfestival.sg/ (visited 14 Sept 2024).
[26]See reference list

Focus on Consumer Protection

Consumer protection is a top priority for both Hong Kong and Singapore, ensuring that digital insurance platforms operate transparently, fairly, and ethically. Regulatory bodies require insurers to disclose necessary information, protect consumer data, and use technology responsibly.

The Insurance Ordinance (Cap. 41) forms the backbone of the insurance regulatory framework in HK, establishing requirements for both traditional and digital insurers. To address the unique challenges of the digital landscape, the Guidelines on the Use of Internet for Insurance Activities (GL8) set additional standards to ensure consumer protection in online insurance transactions and took effect on June 26, 2017.[27] Similarly, **c**onsumer protection in the digital insurance space in Singapore is governed by several regulations, including the Personal Data Protection Act (PDPA). The PDPA, which was established in 2013 and has been amended several times since, regulates how insurers handle personal data.[28] Furthermore, the MAS Guidelines on Provision of Digital Advisory Services issued in 2018 impose specific requirements on insurers and financial advisors that offer digital services.[29]

Differences between Hong Kong and Singapore in the Development of Insurtech

The Stringent and Gradual Regulatory Environment in Hong Kong

Hong Kong's regulatory environment in the financial industry is deeply rooted in a cautious and incremental approach, with its well-established legal and regulatory structure,[30] especially regarding technological developments such as digital insurance platforms. The insurance market in Hong Kong is both large and mature, with substantial investments in traditional sales models relying on intermediaries. To protect this established market, the HKIA enforces stringent regulations, ensuring that both traditional and digital insurers adhere to high standards of risk management and operational integrity. This cautious stance is designed to prevent market disruptions arising from rapid digital transformation.

Moreover, the HKIA's measured approach allows insurers to experiment through controlled initiatives, such as the Insurtech Sandbox and Fast Track schemes introduced in 2017. These programs permit insurers to test technologies within a supervised environment, where risks are monitored and mitigated, and ensure that digital insurers undergo thorough vetting before approval. By prioritizing long-term sustainability, Hong Kong's regulatory environment balances innovation with consumer protection.

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[27]Insurance Authority, *Guideline on the use of internet for insurance activities* (2017), available at https://www.ia.org.hk/en/legislative_framework/files/GL8.pdf (visited 14 Sept 2024).

[28]Personal Data Protection Commission Singapore, *PDPA overview*, available at https://www.pdpc.gov.sg/overview-of-pdpa/the-legislation/personal-data-protection-act (visited 14 Sept 2024).

[29]Monetary Authority of Singapore, *MAS issues guidelines to facilitate provision of digital advisory services* (2018), available at https://www.mas.gov.sg/news/media-releases/2018/mas-issues-guidelines-to-facilitate-provision-of-digital-advisory-services (visited 14 Sept 2024).

[30]Chen Yi & Ahmed Razman Bin Abdul Latiff, "The Role of Regulatory Frameworks in Shaping the Firm Value of Cross-Listed Companies: A Comparative Analysis," (2024) *Journal of Digitainability Realism & Mastery (DREAM)*, Volume 03, Issue 04, p 14. (visited 14 Sept 2024).

The Virtual Insurance Licensing Framework in Hong Kong

The HKIA has introduced a licensing framework for digital insurers, known as the Virtual Insurance License, to support technological innovation while maintaining regulatory supervision. Insurance businesses can operate fully online, removing the need for physical branches. The framework emphasizes digital-only sales, creating a clear regulatory distinction between digital-only and traditional insurers.

Customers can purchase online self-service insurance through the digital sales platform of the insurers. For these consumers, the HKIA has given some useful notes on its official website. For complex insurance products that require the involvement of intermediaries, non-face-to-face meetings through video conferencing are permitted, with strict guidelines in place to ensure security and transparency. The HKIA has also provided some tips for consumers who want to purchase insurance. Additionally, for Compliance with Existing Laws, any insurer wishing to operate under the Virtual Insurance License must comply with the Insurance Ordinance (Cap. 41), the Guidelines on the Use of Internet for Insurance Activities, the Guideline on Cybersecurity, and other related laws. These policies ensure that insurers implement the necessary security protocols for digital platforms, provide adequate training for intermediaries, and safeguard customer data through rigorous cybersecurity measures.

The Great Influence of Established Financial Giants in Hong Kong

Unlike Singapore, where the regulatory environment allows for more open economic policies, Hong Kong has favorable tax regulations and a stable political environment, as evidenced by the world's highest economic freedom score (updated in October 2023).[31] Hong Kong's digital insurers must operate within an environment largely shaped by legacy institutions with long-standing ties to customers, agents, and banks. The strong foothold of traditional financial insurance institutions in Hong Kong helps to maintain their market position and enhances their dominance, even when confronted with unexpected challenges. Over the years, these organizations have established enduring relationships with customers, agents, and banks. The presence of these institutions maintains market stability but creates significant challenges for new entrants. Moreover, these financial giants have the means to create their own digital insurance products, allowing them to leverage their established customer bases and brand recognition.

These financial institutions can develop their own digital insurance products and leverage existing customer bases, making it difficult for newer digital insurers to compete. As a result, Insurtech development in Hong Kong is often guided by existing market structures rather than disruptive innovation. To overcome these challenges, digital insurers frequently collaborate with established institutions, which provides resources but may limit their independence and growth potential. This approach, while ensuring stability, may reduce the agility of smaller Insurtech firms.

[31]Kari Soo Lindberg, "Singapore beats Hong Kong to become 'world's freest economy' for first time," *Bloomberg* (2020), available at https://www.bloomberg.com/news/articles/2023-09-20/singapore-beats-hong-kong-to-become-world-s-freest-economy-for-first-time?leadSource=uverify%20wall (visited 14 Sept 2024)

The Relatively Flexible and Adaptive Framework-Based Regulatory Environment in Singapore

The MAS oversees a more principle-based regulatory approach. Rather than imposing strict, sector-specific rules, the MAS allows firms to operate within broad financial guidelines, creating a space for experimentation and innovation. Insurtech companies are primarily governed by overarching regulations, such as the Insurance Act (Cap. 142), the Financial Advisers Act (Cap. 110), and the Payment Systems (Oversight) Act (Cap. 222A). These regulations set basic requirements for licensing, consumer protection, and disclosures, but they lack the highly detailed, activity-specific requirements seen in jurisdictions like in Hong Kong.

The MAS's FinTech Regulatory Sandbox, which was introduced in 2016, offers an even higher level of regulatory flexibility. This enables companies to test and scale innovations while still maintaining baseline consumer protections. The sandbox model not only encourages rapid prototyping but also invites collaboration with regulators, enabling the refinement of rules as new technologies evolve. This contrasts sharply with Hong Kong's sandbox model, which, while beneficial, still operates under a more controlled environment, particularly when dealing with new entrants like digital-only insurers. Furthermore, Singapore actively promotes green finance and sustainability through initiatives, such as the 2019 Green Finance Action Plan, which provides grants for green bond issuances.[32]

Tax regimes in both jurisdictions are competitive but differ in focus. Hong Kong offers a simplified, low-tax system (8.25% on the first HKD 2 million and 16.5% thereafter, with offshore income tax-exempt), making it attractive for holding companies.[33] Singapore applies a 17% corporate tax rate and taxes offshore income only upon remittance, complemented by extensive double-taxation agreements and targeted incentives for startups.[34] For example, small firms with revenue below SGD 10 million are exempt from mandatory audits, reducing compliance costs. Overall, Singapore's system better supports innovation-driven businesses,[35] while Hong Kong prioritizes simplicity and offshore activity.

Singapore also benefits from stronger geopolitical stability and consistent governance, enhancing its appeal to multinational firms. While Hong Kong provides strategic access to Mainland China, it faces uncertainties linked to geopolitical tensions.[36] Both jurisdictions maintain robust legal systems and intellectual property protections, but Singapore's emphasis on innovation and digital infrastructure, through initiatives like

[32]Green Finance Platform, *Singapore's Green Finance Action Plan,* (2019), available at https://www.greenfinanceplatform.org/policies-and-regulations/singapores-green-finance-action-plan (visited 5 Feb 2025).

[33]HSBC, *A Complete Guide to Corporate Tax in Hong Kong*, (2024), available at https://www.businessgo.hsbc.com/en/article/understanding-profit-tax-a-complete-guide-to-corporate-tax-in-hong-kong (visited 8 Feb 2025).

[34]PwC, *Singapore Corporate - Taxes on corporate income*, (2024), available at https://taxsummaries.pwc.com/singapore/corporate/taxes-on-corporate-income (visited 8 Feb 2025).

[35]Dezan Shira & Associates, *Why Singapore*, (2024), available at https://www.aseanbriefing.com/doing-business-guide/singapore/why-singapore (visited 8 Feb 2025)

[36]Guangyi Pan & Alexander Korolev, "The Struggle for Certainty: Ontological Security, The Rise of Nationalism, and Australia-China Tensions After COVID-19," *Journal of Chinese Political Science*, 26(1), 115–138. (2021) (visited 5 Feb 2025).

Smart Nation, better supports emerging industries, with a positive atmosphere that encourages businesses to innovate freely as the world's freest economy.[37] In contrast, Hong Kong remains more focused on traditional finance and logistics.

In summary, Singapore's principle-based framework, regulatory flexibility, and innovation-oriented policies make it particularly attractive for insurtech and growth-focused enterprises. Hong Kong remains competitive for traditional finance and regional access, but its rule-based approach and geopolitical risks may limit its appeal for innovation-led businesses.

Sandbox Comparison

The regulatory approaches of Singapore and Hong Kong diverge significantly in their treatment of Insurtech innovation, particularly within their respective sandbox regimes. From the authors' perspective, Singapore's framework is more flexible and adaptive, whereas Hong Kong's is comparatively cautious and incremental.

Approval Process: Rigidity vs. Agility

Hong Kong's Insurance Authority (HKIA) adopts a conservative and methodical approval process, characterized by extensive scrutiny and the absence of fixed timelines for preliminary feedback. This reflects a regulatory philosophy that prioritizes risk management and gradual technological integration. In contrast, Singapore's MAS employs a more agile approach, committing to provide an initial assessment within 21 working days. This structured responsiveness enhances predictability and supports faster strategic planning for applicants.

Flexible Parameters: Case-by-Case Evaluation vs. Collaborative Adaptation

Although the HKIA allows limited flexibility, it evaluates sandbox applications on a case-by-case basis without clearly defined relaxed requirements. This approach emphasizes cautious risk control and regulatory integrity. Conversely, MAS adopts a more collaborative model, encouraging ongoing dialogue and allowing applicants to refine and resubmit proposals. This iterative process supports regulatory adaptability and aligns with evolving technological developments.

Transparency and Public Disclosure: Controlled Information vs. Open Communication

Hong Kong maintains a relatively reserved stance on disclosure, with limited public information on sandbox applications, reflecting a preference for confidentiality and controlled experimentation. By contrast, Singapore emphasizes transparency, with MAS

[37] Bloomberg, *Singapore beats Hong Kong to become 'world's freest economy' for first time* (2020), available at https://www.bloomberg.com/news/articles/2023-09-20/singapore-beats-hong-kong-to-become-world-s-freest-economy-for-first-time?leadSource=uverify%20wall (visited 14 Sept 2024).

publishing details of approved sandbox projects, including applicant identities and testing periods. This open communication enhances accountability, stakeholder engagement, and trust, reinforcing Singapore's innovation-friendly regulatory environment.

The Non-Existence of an Exclusive Digital-Only License in Singapore

As a developed city, Singapore embraces digital insurance and promotes Insurtech development. Digital insurers operate under general insurance regulations established by the Monetary Authority of Singapore (MAS), without a specific virtual insurance license as seen in Hong Kong, and utilize hybrid models combining online platforms with traditional channels such as agents, brokers, and banks.

While Hong Kong enforces strict conditions on its virtual insurance license, prohibiting the use of agents or bancassurance, Singapore allows digital insurers to operate under the same regulatory framework as traditional insurers. Thus, they are not restricted in their choice of distribution channels.

The MAS promotes digital innovation through initiatives like the FinTech Regulatory Sandbox, enabling companies to test digital insurance models in a controlled environment without mandating exclusive digital sales channels.

Regulatory Focus & Speed and Digitalization Prioritization in Singapore

Singapore's approach to digital transformation centers on building a comprehensive digital infrastructure to establish itself as a global innovation leader. The Smart Nation initiative spans multiple sectors, including fintech and Insurtech, with the MAS supporting developments through its FTIG. Its sandbox allows companies to test technologies in a flexible, risk-mitigated environment, enabling faster deployment. This flexibility, reinforced by Sandbox Express (with approvals often within 21 days), makes Singapore attractive to fintech and Insurtech firms.[38]

In contrast, Hong Kong focuses on enhancing its existing financial infrastructure rather than pursuing full-scale transformation. Its strategy integrates digital technology into the current system to improve efficiency and security. Although Hong Kong also operates a sandbox, it emphasizes risk control and compliance, reflecting a more conservative approach that prioritizes market stability and results in a comparatively slower pace of innovation than Singapore.

Promotion of the Public–Private Partnership Model in Singapore[39]

In Singapore, the promotion of Public–Private Partnerships (PPP) is central to encouraging innovation in sectors such as Insurtech. The MAS collaborates with

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[38]he University of Hong Kong LiTELB, *Comparing the regulatory landscape for FinTechs regulated as fund managers to operate in Hong Kong and Singapore*, (2021) available at https://litelab.law.hku.hk/blogs/elementor-8009/ (visited 14 Sept 2024).

[39]Gina Clarke, "Singapore launches world's first public-private partnership to create a new digital infrastructure," *The Fintech Times* (2020), available at https://thefintechtimes.com/singapore-laun ches-worlds-first-public-private-partnership-to-create-a-new-digital-infrastructure/ (visited 14 Sept 2024). FINTECH GLOBAL, *How Singapore Is Redefining AML Compliance through Innovative Collaborations* (2024), available at https://fintech.global/2024/04/17/how-singapore-is-redefining-aml-compliance-through-innovative-collaborations/ (visited 14 Sept 2024). The Digital Insurer, *Singapore's dynamic InsurTech map – in collaboration with the Singapore FinTech Association*, available at https:// www.the-digital-insurer.com/dynamic-insurtech-maps/singapore/ (visited 14 Sept 2024).

private firms through initiatives like the FinTech Regulatory Sandbox and Sandbox Express, allowing companies to test products in a controlled environment with regulatory guidance. This iterative feedback process enables firms to adjust their offerings while maintaining compliance with consumer protection standards. The Smart Nation initiative further supports collaboration between the government and private sector in developing digital infrastructure.

While both regions incorporate top-down elements in their regulatory frameworks, Singapore's approach actively promotes innovation, contrasting with the more traditional and occasionally rigid regulatory structure found in Hong Kong. This is evident in initiatives like the fintech sandbox and government-led projects, such as the Smart Nation initiative, launched in 2014, along with the FinTech Innovation Lab established in 2016, all of which have attracted significant venture capital investment.[40] Thus, it is reasonable to characterize Hong Kong as more top-down in certain respects, particularly concerning its regulatory processes, while Singapore effectively balances top-down governance with a robust commitment to fostering innovation. This focus arises from Hong Kong's long-established financial market, which prioritizes stability and adherence to regulations.[41] The regulatory framework in Hong Kong aims to mitigate risks, which can slow the adoption of innovative practices by requiring businesses to meet established standards before introducing new technologies. In contrast, Singapore's public-private partnership (PPP) model fosters a more collaborative environment, with the Monetary Authority of Singapore (MAS) actively supporting companies during product development.

Qualitative Analysis with Data Illustrations

Digital Insurers in the Hong Kong Non-Life Market

Figures 1 and 2 illustrate the performance of digital non-life insurers OneDegree and Avo in Hong Kong from 2019 to 2023, comparing premiums and claims across five sectors. OneDegree showed strong growth in Property Damage, with gross premiums rising from HKD 8.1 million in 2020 to HKD 161.6 million in 2023. Other Business premiums reached HKD 19.4 million, and Accident & Health premiums increased modestly. Claims for Property Damage also rose significantly from HKD 1.4 million to HKD 25.3 million. By contrast, Avo's growth was more limited in Property Damage but stronger in Accident & Health, where gross premiums reached HKD 85.2 million in 2023. Claims in this segment also increased substantially, while other categories remained minimal.

[40] Smart Nation and Digital Government Office, *Our Smart Nation Vision*, (2025), available at https://www.smartnation.gov.sg/vision/ (visited 14 Sept 2024). Government of Singapore, *MAS establishes FinTech Innovation Lab*, (2019), available at https://www.mas.gov.sg/news/media-releases/2016/mas-establishes-fintech-innovation-lab (visited 14 Sept 2024).

[41] Chu, Kam Hon. "Financial Development in Hong Kong and China: A Hayekian Perspective." *Cato Journal* 25–44. (2021) (visited 14 Sept 2024).

Figure 1 & Figure 2. *Non-Life Digital Insurers: Premiums and Claims, HKIA*[42]

Gross and Net Premiums	Year	Property Damage		Accident & Health		Pecuniary Loss		Other Business		Employees' Compensation	
All in 000'		Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
OneDegree	2020	8,106	7,305	-	-	-	-	454	454	-	-
	2021	44,356	42,827	42	41	-	-	1,550	1,550	-	-
	2022	111,115	60,743	592	298	-	-	2,938	2,928	-	-
	2023	161,575	48,927	747	452	-	-	19,420	10,706	-	-
Avo	2019	300	300	32	20	3	1	-	-	-	-
	2020	745	745	262	165	5	2	-	-	-	-
	2021	609	609	574	403	-	-	244	193	-	-
	2022	1,111	1,111	676	407	211	209	6	3	12	7
	2023	718	712	85,176	84,061	8	8	25	26	64	64

Gross and in 000'	Year	Property Damage		Accident & Health		Pecuniary Loss		Other Business		Employees' Compensation	
		Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
OneDegree	2020	1,548	1,494	-	-	-	-	67	67	-	-
	2021	24,863	24,159	-	-	-	-	647	647	-	-
	2022	63,719	56,489	-	-	-	-	1,255	1,255	-	-
	2023	79,243	25,324	-	-	-	-	827	827	-	-
Avo	2019	-	-	-	-	-	-	-	-	-	-
	2020	-	-	4	2	-	-	-	-	-	-
	2021	2	2	2	1	1	1	-	-	-	-
	2022	78	78	18	9	-	-	-	-	-	-
	2023	144	141	27,621	27,317	-	-	-	-	-	-

The market share of the two digital non-life insurers has significantly increased over the past five years, rising from 0.001% in 2019 to 0.544% in 2023, as depicted in Figure 4. This growth reflects a growing acceptance of digital insurance products. Should this trend continue, digital insurers may capture a larger segment of Hong Kong's non-life insurance market in the coming years. Despite their rapid expansion, they still constitute a minor fraction of the overall market, indicating substantial potential for further growth. Notably, all market data pertains solely to Direct Business, excluding reinsurance data, as these insurers operate on a Business-to-Consumer model. The calculations for Figure 5 are detailed in Figures 6 and 7.

Figure 3 & Figure 4. *Non-Life Digital Insurers' Market Share, HKIA*[43]

	Year				
Gross Premium	**2019**	**2020**	**2021**	**2022**	**2023**
Total of two digital	335	9,572	47,375	116,661	267,733
Total of Non-Life	42,413,451	44,386,202	46,116,080	47,063,849	49,195,188
Market Share	0.001%	0.022%	0.103%	0.248%	0.544%

[42] Insurance Authority, Quarterly Release of Provisional Statistics for General Business, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (Visited 14 Sept 2024).
[43] Insurance Authority, Quarterly Release of Provisional Statistics for General Business, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (visited 14 Sept 2024).

Year	Gross Premium Rate of Change	Paid Loss Ratio	Incurred Loss Ratio	Commission Ratio	Expense Ratio	Combine Ratio
2019	/	57%	62%	15%	19%	95%
2020	5%	53%	59%	15%	18%	92%
2021	4%	57%	61%	15%	17%	93%
2022	2%	53%	58%	15%	19%	92%
2023	5%	56%	64%	14%	19%	98%
2024-1H	-43%	56%	59%	12%	18%	89%

Figure 5. *Non-Life Digital Insurers Ratio Performance, HKIA*[44]

Non-Life Digital Insurer	Year	Gross Premium Rate of Change	Paid Loss Ratio	Incurred Loss Ratio	Commission Ratio	Expense Ratio	Combine Ratio
OneDegree	2020	/	72%	81%	0%	299%	380%
	2021	437%	99%	108%	-1%	169%	276%
	2022	150%	89%	93%	-11%	208%	290%
	2023	59%	55%	55%	-35%	192%	213%
Avo	2019	-100%	0%	72%	0%	1377%	1449%
	2020	202%	0%	25%	-1%	2703%	2727%
	2021	/	0%	5%	-3%	2176%	2178%
	2022	41%	7%	18%	-6%	1640%	1651%
	2023	4165%	53%	100%	30%	48%	178%

Figures 6 & 7. *Non-Life Digital Insurers Data and Market Data, HKIA*[45]

Non-life Market

Total (Numbers all in 000')	Gross Premiums	Net Premiums	Net Earned Premiums	Net Commissions Payable	Net Claims Paid	Net Claims Incurred	Unexpired Risks Adjustment	Management Expenses
2019	42,413,451	29,475,413	28,339,714	4,505,224	16,144,842	17,443,875	79,580	5,467,082
2020	44,386,202	31,303,893	29,196,611	4,749,252	15,379,790	17,191,246	44,451	5,561,596
2021	46,116,080	33,046,447	30,423,323	5,041,451	17,332,157	18,553,463	(3,045)	5,495,825
2022	47,063,849	33,217,370	31,936,935	4,878,569	16,819,515	18,540,233	(89,510)	6,369,965
2023	49,195,188	34,339,466	33,238,747	4,953,331	18,528,140	21,313,965	251,316	6,617,607
2024-1H	27,797,838	19,016,370	17,223,115	2,337,163	9,572,365	10,081,755	73,026	3,366,422

*Direct Business Only

44 Insurance Authority, *Quarterly Release of Provisional Statistics for General Business*, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (visited 14 Sept 2024).

45 Insurance Authority. (2024, May 29). Quarterly Release of Provisional Statistics for General Business. Retrieved from https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (visited on 14 Sept 2024).

Non-Life Digital Insurer

(Numbers all in 000')	Year	Gross Premiums	Net Premiums	Net Earned Premiums	Net Commissions Payable	Net Claims Paid	Net Claims Incurred	Unexpired Risks Adjustment	Management Expenses
OneDegree	2020	8560	7759	2180	0	1561	1756	0	23219
	2021	45948	44418	25134	(512)	24806	27071	0	75055
	2022	114645	63969	64767	(6899)	57744	60226	0	133187
	2023	181742	60085	47352	(20761)	26151	26131	0	115502
Avo	2019	335	321	25	(1)	0	18	0	4420
	2020	1012	912	1125	(9)	2	285	0	24649
	2021	1427	1205	950	(35)	4	44	0	26220
	2022	2016	1737	1291	(110)	87	226	0	28489
	2023	85991	84871	52099	25444	27458	52167	4950	40496

As for the financial ratios depicted in Figure 4, the non-life insurance market maintained a preferable combined ratio under 100% from 2019 onwards, ranging between 89% and 98%. This indicates that, overall, the non-life market was profitable during those years, as a combined ratio below 100% implies that insurers were making an underwriting profit (premiums exceeded claims and expenses). Both digital insurers have shown improvement in their financial ratios over time, though they are still struggling with profitability. As seen in Figure 7, OneDegree has shown slower premium growth in recent years but demonstrates better control over claims and expenses, reducing its combined ratio to 213% in 2023. However, it still has work to do to reach a sustainable break-even point. Avo has seen an incredible surge in premium growth, but its ratios suggest early struggles with cost control. The significant improvement in the expense ratio and combined ratio in 2023 points towards operational efficiency gains as the company matures. However, the loss ratios indicate that as more policies are written, Avo must carefully manage claims to avoid eroding profitability. In conclusion, both insurers are moving in the right direction, but they face challenges typical of digital startups in the insurance sector—mainly high operational costs and emerging claims pressures. Their long-term success will depend on continued efficiency improvements and managing the balance between growth and profitability.

Digital Insurers in the Hong Kong Life Market

Figure 8 summarizes premium performance of three digital life insurers from 2019 to mid-2024. Blue and ZA Insure rely more on single payments, while Bowtie emphasizes annual premiums for stability. Blue leads in single payments but is shifting toward annual premiums, while Bowtie's model supports retention. ZA Insure's reliance on single payments creates volatility.

Blue maintained stable annual premiums, while Bowtie's grew significantly from 2019 to 2023. ZA Insure experienced sharp fluctuations in single payments, with limited growth in annual premiums, reflecting weaker focus on recurring relationships.

Although market share remains small, annual premium share increased from 0.06% in 2020 to 0.11% in 2023 (Figures 9–10), indicating gradual consumer acceptance. Bowtie demonstrates the potential of sustainable recurring revenue, while single-payment shares declined from nearly 1% in 2020 to 0.51% in 2023, reflecting economic uncertainty and competition from traditional insurers.

Figure 8. *Premium Data of Digital Life Insurers, HKIA*[46]

Sum of NB and Inforce Business	(in 000')	Premiums	
Life Digital Insurer	Year	Annual Payment	Single Payment
Blue	2020	255,394	1,196,671
	2021	212,068	1,335,867
	2022	233,324	435,125
	2023	254,918	663,858
	2024-1H	75,006	200,936
Bowtie	2019	2,448	-
	2020	37,593	-
	2021	103,314	-
	2022	160,186	-
	2023	211,442	-
	2024-1H	135,957	-
ZA Insure	2020	9,751	-
	2021	27,049	236,700
	2022	27,915	789,992
	2023	21,530	391,384
	2024-1H	12,281	400,658

Figure 9. *Life Digital Insurers' Market Share, HKIA*[47]

Sum of New and Inforce Business

Year	2020		2021		2022		2023		2024-1H	
Gross Premium (in 000')	Annual Payment	Single Payment	Annual Payment	Single Payment	Annual Payment	Single Payment	Annual Payment	Single Payment	Annual Payment	Single Payment
Total of 3 digital insurers	302,738	1,196,671	342,431	1,572,567	421,425	1,225,117	487,890	1,055,242	223,244	601,594
Total of Life Market	504,529,283	120,910,448	464,962,955	193,469,413	393,720,513	182,445,459	458,482,707	169,930,481	270,143,586	99,786,461
Market Share	0.06%	0.99%	0.07%	0.81%	0.11%	0.67%	0.11%	0.62%	0.08%	0.60%

Figure 10. *Life Market Data, HKIA*[48]

(HK$'000)	Year	New Business				In-Force Business				sum of NB and Inforce Business		
		No. of Policies		Premiums		No. of Policies	Sums	Premiums		No. of Policies	Premiums	
		Annual Payment	Single Payment	Annual Payment	Single Payment	Annual Payment		Annual Payment	Single Payment	Annual Payment	Annual Payment	Single Payment
Market Total	2020	989,061	55,940	72,968,529	60,074,675	14,793,632	8.253E+09	431,560,754	60,835,773	15,782,693	504,529,283	120,910,448
	2021	884,434	106,337	70,183,881	96,247,022	15,122,560	8.626E+09	394,779,074	97,222,391	16,006,994	464,962,955	193,469,413
	2022	684,703	77,616	43,497,463	90,923,997	15,211,777	8.741E+09	350,223,050	91,521,462	15,896,480	393,720,513	182,445,459
	2023	895,963	62,570	95,958,198	84,694,909	15,398,684	9.041E+09	362,524,509	85,235,572	16,294,647	458,482,707	169,930,481
	2024-1H	480,066	35,151	66,205,120	49,393,486	15,501,313	9.200E+09	203,938,466	50,392,975	15,981,379	270,143,586	99,786,461

46 Insurance Authority, Quarterly Release of Provisional Statistics for General Business, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_general_business.html (Visited 14 Sept 2024).

47 Insurance Authority. *Quarterly Release of Provisional Statistics for Long Term Business*, available at https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_of_provisional_statistics_for_long_term_business.html (Visited 14 Sept 2024).

48 Insurance Authority. (2024, May 30). *Quarterly Release of Provisional Statistics for Long Term Business*. Retrieved from https://www.ia.org.hk/en/infocenter/statistics/quarterly_release_ofprovisional_statistics_for_long_term_business.html (visited on 14 Sept 2024).

Digital Channel Performance of the L&H Business in Singapore

Despite the limited data released by the MAS, Life Insurance Association Singapore, and the General Insurance Association of Singapore regarding digital channel performance, it is still worth looking at a rough overview of the new business performance of life and health insurance products from 2019 to 2023, as shown below in Figure 11, with a focus on the Online Direct Channel (ODC). This channel refers to digital platforms developed and maintained by life insurers, allowing customers to purchase life policies directly without the need for intermediaries.

Figure 11. *Market Share of the Online Direct Channel, LIAS*[49]

New Business (Individual Life & Health)	2019		2020		2021		2022		2023	
	#	%	#	%	#	%	#	%	#	%
Total Weighted Premium	4,253.6m		4,383.1m		$5,381m		$5,098m		$4,901m	
Online Direct Channel	9m	0.2%	180m	4.1%	$189m	3.5%	$144m	2.8%	$85m	1.7%

Online Direct Channel refers to any web portal or application in the internet created, developed and maintained or operated by any direct life insurer, on which a client may purchase a life policy.

This is a new category with data collected starting Q1'19.

Broadly, from 2019 to 2023, the total weighted premiums for new business in the individual life and health insurance sectors grew from SGD $4,253.6 million to SGD $4,901 million, reflecting a steady demand for these products. The premium volume peaked in 2021 at SGD $5,381 million, possibly due to increased awareness around health and financial security following the global pandemic. However, after 2021, the total weighted premium showed a slight decline, falling to SGD $5,098 million in 2022 and further to SGD $4,901 million in 2023. This dip could be linked to market normalization post-pandemic or economic pressures affecting consumer purchasing behavior. Data regarding the performance of the ODC were first collected in 2019, marking the industry's focus shift towards digitalization. In 2019, the ODC accounted for SGD $9 million, which was just 0.2% of the total weighted premium for that year. By 2020, this channel saw a remarkable increase, contributing SGD $180 million, making up 4.1% of the total weighted premium. This significant growth reflects the early success of digital insurance platforms in response to changing consumer behaviors during the pandemic, where digital interactions became a necessity rather than an option. Namely, the COVID-19 pandemic greatly hastened the shift towards digital adoption and even altered the perspectives of traditional stakeholders.[50] In 2021, ODC continued to grow but at a slower pace, reaching SGD $189 million and representing 3.5% of total premiums. In 2022, ODC premiums dropped to SGD $144 million, accounting for 2.8% of total premiums, suggesting a potential saturation of the ODC market, or perhaps a shift in consumer preferences back towards traditional

[49]Life Association Singapore, *Life insurance industry results* (2024), available at https://www.lia.org.sg/media/4142/20240215_lia-4q2023-results_slides.pdf (visited 14 Sept 2024).
[50]Matthias de Ferrieres, "The Rise of the Digital Economy: Estimating the Impact of a New Generation of Entrepreneurs as Disruptive Entrants in the Insurance Industry in Singapore," *ResearchGate* (2021), available at https://www.researchgate.net/publication/350725834_THE__RISE_OF_THE_DIGITAL_ECONOMY_ESTIMATING_THE_IMPACT_OF_A_NEW_GENERATION_OF_ENTREPRENEURS_AS_DISRUPTIVE_ENTRANTS_IN_THE_INSURANCE_INDUSTRY_IN_SINGAPORE DOI:10.13140/RG.2.2.29404.51849 (visited 25 Jan 2025).

purchase methods as the impact of the pandemic waned. The decrease continued into 2023, where ODC premiums captured only 1.7% of the market; this could indicate several factors, including increased competition from traditional channels that provide non-product-related services, changing consumer sentiment, or insufficient digital product differentiation.[51]

When comparing the life insurance markets of Singapore and Hong Kong, while Hong Kong's digital life insurers have been slower to gain market share, Singapore's ODC had a spike during the pandemic and ended up taking 4.1% of the total weighted premiums in 2020. Singapore's ODC share dropped to 1.7% by 2023, indicating a stabilization or a return to traditional channels as the preferred option, likely due to the importance of relationship-building and trust in influencing consumer decisions. This highlights the varying digital adoption rates between the two regions.[52]

While some may contend that the market share of digital insurance in Hong Kong is relatively small compared to Singapore and that growth trends from 2020 to 2024 have not been consistently upward, it is crucial to consider the broader context of the evolving landscape. Hong Kong's digital insurers are actively expanding their offerings, with several Insurtech companies launching innovative products that cater to both single and annual premium payment options. This shift indicates a growing consumer preference for online platforms, reflecting increased comfort with digital solutions for insurance needs.

Moreover, these companies are strategically focusing on building long-term relationships with clients, which is essential for establishing trust in an industry traditionally reliant on face-to-face interactions. This emphasis aligns with consumer demands for more flexible and accessible insurance solutions. The market potential is further enhanced by the influx of clients from the Greater Bay Area (GBA), supported by favorable cross-border regulations that facilitate seamless interactions between insurers and clients. As these regulatory frameworks evolve, they are likely to foster a more integrated insurance market benefiting both consumers and providers. The introduction of tailored products for the GBA market, such as Avo Insurance's Northbound Dental Insurance launched in November 2024, exemplifies this growth potential by offering coverage for individuals aged 1 to 80, regardless of Hong Kong ID status.[53] This inclusivity not only expands the client base but also highlights digital insurers' commitment to addressing the diverse needs of consumers in the region. As time progresses, the synergy of innovative product offerings, supportive regulatory environments, and a growing customer base from the Greater Bay Area (GBA) is

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[51]Trembly, Ara C., 2001, "Why the insurance industry has failed in the online distribution channel," *National Underwriter* (Life & Health Services edition), 105: 19–21.

[52]James F. Devlin and Sarwar Azhar, "'Life would be a lot easier if we were a Kit Kat': Practitioners' views on the challenges of branding financial services successfully." *Journal of Brand Management*, 12(1), pp.12–30 (2004). Rafael Bravo, Teresa Montaner and Jose M. Pina, Corporate brand image of financial institutions: a consumer approach. *Journal of Product & Brand Management*, 21(4), pp.232–245 (2012). S.M.A. Moin, James Devlin and Sally McKechnie, The magic of branding: The role of 'pledge,' 'turn' and 'prestige' in fostering consumer trust in financial services. *Journal of Financial Services Marketing*, 21(2), pp.113–126 (2016). Leonard L. Berry, Cultivating service brand equity. *Journal of the Academy of Marketing Science*, 28(1), pp.128–137 (2000).

[53]Avo Insurance Company Limited, *Northbound Dental Insurance - Extensive dental network covering essential care* (2024), available at https://www.heyavo.com/en/products/dental (visited 20 Nov 2024).

likely to significantly enhance the market share of digital insurance channels in Hong Kong. This evolution signifies a dynamic shift in the insurance landscape, propelled by technological advancements and changing consumer behaviors.

Challenges and Opportunities in Hong Kong

Existing Challenges

Competition from Traditional Insurers

Even with the innovation and client convenience that digital insurers provide, their share of the industry is still tiny. Digital insurers have struggled to exceed the 1% threshold in annual premiums, and non-life businesses are in a similar position. This suggests that growth in such a competitive market is gradual.

In Hong Kong, in-person interaction with agents remains an essential component of the insurance-buying process, as conventional insurers benefit from strong reputations and established customer trust. Traditional insurers also maintain extensive distribution networks, including bancassurance partnerships, which provide a competitive advantage, particularly for complex products such as whole life or investment-linked policies.

Additionally, traditional insurers offer a wider range of products and can bundle and cross-sell insurance plans, enhancing customer retention. Their stronger capital reserves and established reinsurance relationships allow them to withstand higher claims and economic fluctuations more effectively, enabling them to offer competitive pricing. By contrast, digital insurers face challenges in building trust, expanding product offerings, and competing on price, particularly among more conservative consumers. Beyond these competitive pressures, digital insurers also face inherent risks associated with technology-driven models. Automated underwriting and claims processing systems, while efficient, may inadvertently introduce algorithmic bias if not carefully designed and monitored, potentially leading to unfair outcomes for certain consumer groups. Additionally, the reliance on digital platforms risks excluding non-tech-savvy populations, particularly older adults and those in lower-income brackets, who may lack the digital literacy or access required to navigate online insurance platforms. These issues highlight that digitalization, while beneficial, must be accompanied by safeguards to ensure equitable access and fair treatment.

Profitability Pressures

Although the market has gradually accepted digital insurers, profitability remains a major obstacle. Operating costs are frequently higher in the early stages, as digital insurers must invest heavily in technology infrastructure, regulatory compliance, and customer acquisition. While digital models aim to reduce costs through automation, developing and maintaining platforms for underwriting, claims handling, and customer support requires significant upfront expenditure. In addition, digital insurers must invest in marketing and partnerships to build brand awareness in a competitive environment, which further increases costs.

The combined ratio, representing the sum of the loss ratio and expense ratio, remains a key indicator of profitability. Although digital insurers have shown improvements in cost control, they continue to face challenges in managing claims as their policy base expands. Limited historical data and evolving risk profiles of new customer segments may lead to difficulties in pricing and higher claims volatility. As a result, digital insurers generally experience a longer path to profitability compared to traditional insurers. Achieving sustainable profitability requires improvements in both scale and operational efficiency, which may take several years in a market such as Hong Kong.

Long-Term Strategic Considerations

In Hong Kong's life insurance market, a distinction exists between the performance of digital insurers in annual payment plans versus single payment plans. Annual payment premiums, which allow clients to make smaller and more frequent payments, have been relatively more stable and contribute to customer retention and recurring income. Conversely, single payment premiums, which require substantial upfront commitments, have shown greater volatility. Their market share fluctuates in response to economic conditions, as such products may be less attractive during periods of uncertainty. This segment also continues to be dominated by traditional insurers with established distribution networks.

Many consumers still prefer purchasing high-commitment insurance products from traditional providers due to the in-person support available and the complexity involved in such policies. For digital insurers, this highlights a continuing trust gap, particularly in relation to long-term and high-value products. To remain competitive, digital insurers must develop product strategies that address these market characteristics. While younger, tech-savvy consumers are more willing to adopt digital insurance, they often prefer lower-cost and short-term products, which may limit revenue growth. Therefore, digital insurers need to balance accessible offerings with more comprehensive products that cater to a broader customer base and evolving financial needs.

Regulatory and Operational Challenges

As companies grow, digital insurers must also address regulatory constraints and preserve operational efficiency. There are unique operational and regulatory hurdles when operating as a digital insurer in a highly regulated sector like insurance. These may affect the scalability, innovation, and competitiveness of digital insurers. One of the most heavily regulated industries is insurance, with stringent rules controlling everything from capital requirements to consumer protection, data privacy, and claims handling. These regulations, which are frequently created with traditional insurers in mind, provide several obstacles for digital insurers operating in Hong Kong, including capital and solvency requirements like Hong Kong Risk-Based Capital. Digital insurers must comply with the capital adequacy and solvency standards set forth by the HKIA, just like traditional insurers do. Digital startups that lack the same financial resources as more established players may find it challenging to meet these requirements. While keeping adequate reserves to pay claims is necessary, doing so may prevent them from reinvesting profits in expansion and innovation. Additionally, digital insurers frequently work to launch cutting-edge goods that meet the evolving demands of their clients. Regulatory agencies must first approve these products though. The length of the approval procedure can hinder the speed at which digital insurers can launch new products. In addition, they are subject to more stringent regulations concerning data protection and cyber security. Given how much digital insurers depend on online platforms and the gathering of private client information, customer trust might be further undermined by costly fines and reputational harm resulting from a data breach or cyber security failure. Therefore, for digital insurers, making investments in cyber security solutions and guaranteeing adherence to data protection laws are essential to business operations. Beyond cybersecurity and data protection, regulators and insurers must also address the societal implications of digitalization. The potential for algorithmic bias in automated decision-making and the digital exclusion of less tech-savvy populations are growing concerns that require proactive oversight. Without appropriate safeguards, the efficiency gains from digitalization may come at the cost of fairness and accessibility, undermining consumer trust and regulatory objectives.

Meanwhile, the rise of insurance aggregators in Singapore and Hong Kong signifies a major change in the insurance industry's digitalization. However, the emergence of these platforms also brings with it new difficulties that require attention, especially in the regulatory area. Market manipulation is one of the main problems that aggregators bring with them. These platforms have significant control over whether products are highlighted or given better rankings because they are increasingly serving as intermediaries between consumers and insurers. Aggregators and specific insurers may occasionally collaborate to promote the latter's products more widely in exchange for increased commissions or fees. This approach may cause market distortion and an unfair playing field for insurers, especially for smaller players or recent entrants who are unable to pay for increased exposure.

The Digitalization in Insurance Guide from Baker McKenzie Law Firm highlighted that[54], at present, Hong Kong lacks specific regulations governing the advertisement of insurance products on online platforms or the utilization of insurance aggregators. Nevertheless, if a third-party online platform engages in the promotion of insurance products and is deemed to be involved in regulated insurance activities, it may be necessary for that platform to acquire the appropriate insurance license. While the practices of using insurance aggregators and advertising insurance products online are not explicitly outlined in regulatory frameworks, it is essential for these activities to comply with existing laws and regulations. This includes adhering to fundamental advertising standards that ensure transparency, honesty, and ethical practices in all marketing efforts In this context, regulators like the HKIA may need to introduce transparency requirements for aggregators. These rules would require aggregators to disclose clearly how products are ranked, whether financial incentives affect the visibility of certain policies, and ensure that comparisons are truly unbiased. This would help prevent conflicts of interest and allow consumers to make well-informed decisions. However, if the regulatory framework becomes too complex or restrictive, it could discourage international insurance companies and Insurtech firms from entering the Hong Kong market, potentially favoring markets with more flexible regulations. Thus, it is imperative for the HKIA to find a balance by implementing appropriate and reasonable regulations that foster growth while maintaining consumer protection in the digital insurance space.

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[54]Baker McKenzie, *Digitalization in Insurance Guide | Hong Kong*, Baker McKenzie Resource Hub (23 October 2025), available at: https://resourcehub.bakermckenzie.com/en/resources/asia-pacific-insurance/asia-pacific/hong-kong/topics/digitalization-in-insurance-guide (visited 5 Feb 2025).

Future Opportunities in Hong Kong

Overview

Figure 12. *Product Line Profiles of Digital Insurers, Official Websites*[55]

	Blue	Bowtie	ZA Insure	OneDegree	Avo
Life Protection	WeCare Flexible Term Life TF1	Bowtie Term Life	ZA Life		
	WeCare Term Life Plan TL3	DreamLife (Term Life rider)			
Medical Protection	- WeMedi Outpatient Protector	Voluntary Health Insurance Scheme	ZA Voluntary Health Insurance Scheme		Cancer Protection
	- WeMedi GBA Dental Protector D1	OutPatient - BowtieGo			Avo VHIS (Standard) Plan
	- WeMedi HK Dental Protector	Enterprise Vision Eyecare			Child Vaccination Protection
		MTB Early Critical Illness Health Check Plan			OutpatientGuard Protection
		Children Vision Eyecare			Northbound Dental Protection
Critical Illness Protection	WeCare Critical Illness Protection Plan 1	Bowtie Critical Illness	ZA Cancer	Critical Illness	Cancer Protection
	1WeCare Cancer All in One	Cancer Fighter	ZA Heart Attack & Stroke		
	WeCare Carcinoma-in-situ				
	WeCare 109% Refundable Critical Illness Protector				
	WeCare 3-in-1 Protector				
Accident Protection	WeCare Personal Accident	Touch Wood Protector	ZA Accident	Fire Insurance	
	WeCare Accidental Joint & Bones Protector				
	WeCare Emergency Cash				
Daily Life related	WeGuard Eye Disease Protector			Home Insurance	Domestic Helper Protection
	WeGuard PharmaEASY Protector			Home Appliances Warranty Insurance	Home Protection | Landlord (leasing out) / Self-occupied / tenant
					eWallet Protection
					eWallet Protection mini
					Cosmetic Journey Protection
					IVF Journey Protection
					AvoDynamics Sports Protection
Saving Insurance	WeSave Short Term Insurance Plan ST1				
	EasySave ES1 Insurance Plan				
	WeSave E1 Insurance Plan				
	WeSave S3 Insurance Plan				
	WeWealth GoWealth Generator 2 / WeProtect GoWealth Plus				
Travel Protection					Worldwide Travel Protection
					Mainland China Travel Protection
					Greater Bay Area (GBA) Travel Protection
					Thailand Travel Protection
Pet Protection				Pet Insurance	
				Dog Insurance	
				Cat Insurance	
				Turtle, Tortoise & Bird Insurance	

[55]Blue Insurance, *Homepage*, available at https://www.blue.com.hk/en (visited 14 Sept 2024); Bowtie Insurance, *Homepage,* available at https://www.bowtie.com.hk (visited 14 Sept 2024); ZA Insurance, *Homepage*, available at https://insure.za.group/v2/en (visited 14 Sept 2024); OneDegree Insurance, *Homepage*, available at https://www.onedegree.hk/en-us (visited 14 Sept 2024); Avo Insurance, *Homepage*, available at https://www.heyavo.com/en (visited 14 Sept 2024).

For the expansion of existing product lines, Figure 12 presents a comprehensive comparison of product offerings from various digital insurers in Hong Kong, including Blue, Bowtie, ZA Insure, OneDegree, and Avo. The categories encompass life protection, medical coverage, critical illness, accident protection, daily life insurance, travel insurance, and pet insurance. The existing product segments of digital insurers in Hong Kong present distinct opportunities for expansion and diversification. While digital insurers have already developed a range of offerings, gaps remain across certain product categories. Addressing these gaps can enhance competitiveness, broaden market appeal, and improve risk diversification, thereby contributing to more stable financial performance.

Expansion of Cross-Border Protection Coverage in the GBA

The surge in travel between Hong Kong and mainland China, particularly during holidays, underscores the need for comprehensive insurance products tailored to frequent short trips. For example, during the 2023 Christmas holiday, over 340,000 people crossed into the mainland, highlighting the potential demand for cross-border insurance coverage.[56]

The inclusion of GBA-specific travel and health products (such as "WeMed GBA Dental" and "GBA Travel") presents a significant opportunity for insurers to target cross-border travelers with specialized offerings. Insurers may further expand their product lines to include more comprehensive packages, such as medical coverage for treatments in GBA hospitals, emergency repatriation services, and follow-up medical care in Hong Kong. These developments are closely linked to evolving regulatory frameworks governing cross-border insurance arrangements. As regulatory coordination within the Greater Bay Area continues to improve, such products may play an increasingly important role in facilitating cross-border financial services.

Provision of Personalized Products and Services for the GBA

Consumers' willingness to share personal data provides insurers with a unique opportunity to create personalized services that meet specific needs. A survey from the Capco global consultancy showed that the primary motivator for data sharing is the desire for more personalized services (55% in Hong Kong; 60% in the GBA).[57] Additionally, many respondents are interested in improvements to claims processes (53% in Hong Kong) and enhanced authentication systems (54% in the GBA). Hence, it is suggested to provide tailored insurance offerings. Health, life, and long-term savings products, such as investment-linked insurance and annuities, can be customized based on a customer's individual financial goals, health data, and lifestyle preferences. At the same time, insurers can leverage personal data, such as fitness and health metrics, to offer personalized wellness and app-based services and rewards for healthy behavior, given that Capco survey respondents in Hong Kong and the GBA are interested in features like mental health coaching, nutrition analysis, and lifestyle recommendations

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[56]MSIG, *Explaining comprehensive protection for Greater Bay Area excursions* (2024), available at https://www.msig.com.hk/en/lifestyle-library/explaining-comprehensive-protection-greater-bay-area- excursions (visited 14 Sept 2024).

[57]CAPCO, *Hong Kong & Greater Bay Area insurance research 2023*, available at https://www.capco.com/about-us/newsroom-and-media/hong-kong-and-gba-insurance-research-2023 (visited 14 Sept 2024).

within insurance apps. In detail, 63% of Hong Kong app users and 73% in the GBA expressed a desire to shop for additional products through their insurance apps, and many respondents wanted apps to offer features like lifestyle recommendations (68% in Hong Kong; 74% in the GBA) and online health information resources (34% in Hong Kong; 40% in the GBA).[58]

Introduction of Brand-New Products

To better address emerging consumer needs and enhance market offerings, digital insurers in Hong Kong may consider introducing new insurance products. This strategy would allow them to serve underserved segments and respond to changing demographic and economic conditions.

Family Insurance Packages

Families often seek insurance products that cover multiple members and address different life scenarios. A customizable family insurance package could provide tailored options for parents, children, and extended family members, offering flexibility and potential cost efficiencies compared to individual policies.

Education Insurance for Mainland Chinese Students in Hong Kong

Mainland Chinese students in Hong Kong represent a growing segment with specific insurance needs. Education-related insurance products could provide short-term coverage that includes health, accident, and medical protection. Such offerings may address gaps between compulsory insurance in mainland China and commercial insurance products in Hong Kong.

Long-Term Care (LTC) Insurance

With Hong Kong's aging population and rising healthcare costs, Long-Term Care (LTC) insurance is becoming increasingly relevant. This type of product would provide coverage for individuals requiring extended care due to illness, disability, or aging, including home care and institutional care services. From a regulatory perspective, the introduction of these new products requires careful consideration of product approval processes, risk management, and consumer protection requirements. Digital insurers must ensure that innovative products comply with existing legal frameworks while addressing emerging market needs.

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[58] *Ibid.*

Conclusion

This research provides a comprehensive analysis of the evolving Insurtech sector in Hong Kong, contrasting it with Singapore's more adaptive environment. The study identifies significant shortcomings in Hong Kong, including an overreliance on traditional distribution methods and profitability challenges. Nevertheless, opportunities exist to expand product offerings, enhance cross-border security in the GBA, and develop customized products to meet consumer demand.

The market analysis reveals that while digital insurers in Hong Kong are growing, they face intense competition from traditional firms and ongoing profitability issues. Although regulatory frameworks in Hong Kong are robust, they are less flexible than Singapore's, where innovation is driven by public-private partnerships and rapid digital adoption.

The virtual insurance market in Hong Kong, encompassing both life and non-life sectors, shows promising growth. To maintain competitiveness, it must navigate operational and regulatory barriers. Future opportunities for Hong Kong's digital insurers include expanding cross-border protection, introducing new products such as family and education insurance, and utilizing data to create personalized solutions. By addressing these challenges and leveraging emerging trends, the digital insurance sector in Hong Kong is poised for significant transformation.

References

Academic Works

Berry, L. L. (2000). Cultivating service brand equity. *Journal of the Academy of Marketing Science*, 28(1), 128–137.

Bian, W., Ge, T., Ji, Y., & Wang, X. (2023). How is Fintech reshaping the traditional financial markets? New evidence from InsurTech and insurance sectors in China. *China Economic Review*, 80, Article 102004. https://doi.org/10.1016/j.chieco.2023.102004

Braun, A., Haeusle, N., & Thistle, P. (2023). Risk classification with on-demand insurance. *Journal of Risk and Insurance,* 90(4), 975–990. https://doi.org/10.1111/jori.12429

Bravo, R., Montaner, T., & Pina, J. M. (2012). Corporate brand image of financial institutions: a consumer approach. *Journal of Product & Brand Management*, 21(4), 232–245.

Cappiello, A. (2020). The technological disruption of insurance industry: a review. *International Journal of Business and Social Science*, 11(1). Available at https://www.ijbssnet.com/journal/index/4371 (visited 5 Nov 2024).

Chen Yi & Latiff, A. R. B. A. (2024). The Role of Regulatory Frameworks in Shaping the Firm Value of Cross-Listed Companies: A Comparative Analysis. *Journal of Digitainability Realism & Mastery (DREAM)*, 3(4), 14.

Chu, K. H. (2021). Financial Development in Hong Kong and China: A Hayekian Perspective. *Cato Journal*, 41(1), 25–44.

Devlin, J. F., & Azhar, S. (2004). 'Life would be a lot easier if we were a Kit Kat': Practitioners' views on the challenges of branding financial services successfully. *Journal of Brand Management*, 12(1), 12–30.

Eling, M., & Lehmann, M. (2018). The Impact of Digitalization on the Insurance Value Chain and the Insurability of Risks. *Geneva Pap Risk Insur Issues Pract*, 43, 359–396. https://doi.org/10.1057/s41288-017-0073-0

Eti, S., Dinçer, H., Meral, H. et al. (2024). Insurtech in Europe: identifying the top investment priorities for driving innovation. *Financ Innov*, 10, 38. https://doi.org/10.1186/s40854-023-00541-y

Goode, K., Kim, H. M., & Deng, M. (2023). Examining Singapore's AI progress. *Center for Security and Emerging Technology*, 19.

Greineder, M., Riasanow, T., Böhm, M., & Krcmar, H. (2019). The Generic InsurTech Ecosystem and its Strategic Implications for the Digital Transformation of the Insurance Industry. *EMISA FORUM*.

Harit, P. (2021). The Rise of Insurtech: The Ups and Downs of New Tech Trend. Available at SSRN: https://ssrn.com/abstract=3799576 (visited 5 Nov 2024).

Koos, S. (2022). Digital Globalization and Law. *Lex Scientia Law Review*, 6(1), 33–68. https://doi.org/10.15294/lesrev.v6i1.55092

Matthias de Ferrieres (2021). The Rise of the Digital Economy: Estimating the Impact of a New Generation of Entrepreneurs as Disruptive Entrants in the Insurance Industry in Singapore. *ResearchGate*. DOI:10.13140/RG.2.2.29404.51849.

Meggitt, G. (2012). The Hong Kong Independent Insurance Authority. *The Journal of Comparative Law*, 7(2). Also available at SSRN: https://ssrn.com/abstract=2290130 (visited 5 Nov 2024).

Moin, S.M.A., Devlin, J., & McKechnie, S. (2016). The magic of branding: The role of 'pledge,' 'turn' and 'prestige' in fostering consumer trust in financial services. *Journal of Financial Services Marketing*, 21(2), 113–126.

Pan, G., & Korolev, A. (2021). The Struggle for Certainty: Ontological Security, The Rise of Nationalism, and Australia-China Tensions After COVID-19. *Journal of Chinese Political Science*, 26(1), 115–138.

Stoeckli, E., Dremel, C., & Uebernickel, F. (2018). Exploring characteristics and transformational capabilities of InsurTech innovations to understand insurance value creation in a digital world. *Electron Markets*, 28, 287–305. https://doi.org/10.1007/s 12525-018-0304-7

Trembly, A. C. (2001). Why the insurance industry has failed in the online distribution channel. *National Underwriter (Life & Health Services edition)*, 105, 19–21.

Zarifis, A., & Cheng, X. (2022). A model of trust in Fintech and trust in Insurtech: How Artificial Intelligence and the context influence it. *Journal of Behavioral and Experimental Finance*, 36, 1–20. https://doi.org/10.1016/j.jbef.2022.100739 (also available at SSRN: https://ssrn.com/abstract=4223846).

Legislation and Legal Instruments

<u>Hong Kong</u>

Anti-Money Laundering and Counter-Terrorist Financing Ordinance (Cap. 615) (2011). Hong Kong e-Legislation.

Companies Ordinance (Cap. 622) (2024). Hong Kong e-Legislation. Available at https://www.elegislation.gov.hk/hk/cap622 (visited 8 Feb 2025).

Electronic Transactions Ordinance (Cap. 553) (2000, last updated 2024). Hong Kong e-Legislation.

Guidance on the Ethical Development and Use of AI (2021). Insurance Authority. Available at https://www.ia.org.hk (visited 5 Feb 2025).

Guidelines on Cloud Computing (2022). Insurance Authority.

Guidelines on Cybersecurity (2019). Insurance Authority. Available at https://www.ia.org.hk/en/legislative_framework/files/GL20_Eng.pdf (visited 9 Jan 2025).
Guidelines on Enterprise Risk Management (2020). Insurance Authority.
Guidelines on Outsourcing (2016, updated 2018). Insurance Authority.
Guidelines on the Use of Big Data Analytics in Insurance (2020). Insurance Authority.
Guidelines on the Use of Internet for Insurance Activities (2017). Insurance Authority.
Insurance Companies (Amendment) Ordinance (2015). Hong Kong.
Insurance Intermediaries Quality Assurance Scheme (2001). Hong Kong.
Insurance Ordinance (Cap. 41) (1983, last amended 2024). Hong Kong.
Insurtech Sandbox initiatives (2017). Insurance Authority. Available at https://www.ia.org.hk/en/digital_onboarding/promotion_of_insurtech_development.html (visited 5 Jan 2025).
Personal Data (Privacy) Ordinance (Cap. 486) (1996). Hong Kong.
Practice Guide for Information Technology Security Risk Management (2024). Insurance Authority.

Singapore

Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) Guidelines (last updated 2025). Monetary Authority of Singapore.
Cloud Services Implementation Guide 3.0 (2024). Monetary Authority of Singapore.
E-Payments User Protection Guidelines (2018, revised 2024). Monetary Authority of Singapore.
Financial Advisers Act (Cap. 110) (2002, last revised 2007). Singapore.
Guidelines on Digital Token Offerings (last updated 2020). Monetary Authority of Singapore.
Guidelines on Outsourcing (2016, revised 2018). Monetary Authority of Singapore.
Guidelines on Provision of Digital Advisory Services (2018). Monetary Authority of Singapore.
Guidelines on Risk Management Practices – Technology Risk (last updated 2021). Monetary Authority of Singapore.
Insurance (Approved Marine, Aviation, and Transit Underwriters and Approved Insurance Brokers) Regulations (2018, revised 2021). Singapore.
Insurance (Corporate Governance) Regulations (2003, revised 2022). Singapore.
Insurance (Intermediaries) Regulations (2004, revised 2022). Singapore.
Insurance Act (Cap. 142) (2004, revised 2021). Singapore.
Notice on Cyber Hygiene (MAS Notice 655) (2019, cancelled 10 May 2024). Monetary Authority of Singapore.
Personal Data Protection Act (2012, revised 2020). Singapore.
Technology Risk Management (TRM) Guidelines (2013, revised 2021). Monetary Authority of Singapore.

Other Official Documents and Reports

CAPCO (2023). Hong Kong & Greater Bay Area insurance research 2023. Available at https://www.capco.com/about-us/newsroom-and-media/hong-kong-and-gba-insurance-research-2023 (visited 14 Sept 2024).
GlobalData (2022). Digital distribution and customization to boost revenues of top Singapore insurers, says GlobalData. Available at https://www.globaldata.com/media/insurance/digital-distribution-customization-boost-revenues-top-singapore-insurers-says-globaldata/ (visited 14 Sept 2024).
GlobalData (2024). Singapore life insurance market size and trends by line of business, distribution, competitive landscape and forecast to 2028. Available at https://www.

globaldata.com/store/report/singapore-life-insurance-market-analysis/ (visited 14 Sept 2024).
International Association of Insurance Supervisors (IAIS). FinTech Developments in the Insurance Industry. Available at https://www.iaisweb.org/uploads/2022/01/Report_on_FinTech_Developments_in_the_Insurance_Industry.pdf (visited 5 Nov 2024).
Monetary Authority of Singapore (2015). Consumers can now compare life insurance products online and buy them without commissions. Available at https://www.mas.gov.sg/news/media-releases/2015/consumers-can-now-compare-life-insurance-products-online-and-buy-them-without-commissions (visited 14 Sept 2024).
Monetary Authority of Singapore (2019). MAS establishes FinTech Innovation Lab. Available at https://www.mas.gov.sg/news/media-releases/2016/mas-establishes-fintech-innovation-lab (visited 14 Sept 2024).
Monetary Authority of Singapore (2021). MAS enhances FinTech regulatory sandbox with Sandbox Plus. Available at https://www.mas.gov.sg/news/media-releases/2021/mas-enhances-fintech-regulatory-sandbox-with-sandbox-plus (visited 14 Sept 2024).
Monetary Authority of Singapore (2024). Overview of Regulatory Sandbox. Available at https://www.mas.gov.sg/development/fintech/regulatory-sandbox (visited 22 Nov 2024).
Momentum Progress and Innovation (2023). General Insurance Association (GIA) Annual Report. Available at https://gia.org.sg/images/media-center/annual-reports/GIA-AR-2023.pdf (visited 14 Sept 2024).
Quinlan & Associates (2022). Examining the case for direct-to-consumer digital distribution in Hong Kong's insurance industry. Available at https://www.quinlanandassociates.com/wp-content/uploads/2022/12/Digital-Distribution-of-Insurance.pdf (visited 14 Sept 2024).
The University of Hong Kong LiTELB (2021). Comparing the regulatory landscape for FinTechs regulated as fund managers to operate in Hong Kong and Singapore. Available at https://litelab.law.hku.hk/blogs/elementor-8009/ (visited 14 Sept 2024).

Other Sources (Websites, News, Commercial Reports)

10Life (2025). Main page. Available at https://www.10life.com/en/ (visited 17 Jan 2025).
Avo Insurance (2024). Homepage. Available at https://www.heyavo.com/en (visited 14 Sept 2024).
Avo Insurance Company Limited (2024). Northbound Dental Insurance – Extensive dental network covering essential care. Available at https://www.heyavo.com/en/products/dental (visited 14 Sept 2024).
Bloomberg (2023). Singapore beats Hong Kong to become 'world's freest economy' for first time. Available at https://www.bloomberg.com/news/articles/2023-09-20/singapore-beats-hong-kong-to-become-world-s-freest-economy-for-first-time (visited 14 Sept 2024).
Blue Insurance. Homepage. Available at https://www.blue.com.hk/en (visited 14 Sept 2024).
BLUEWeave Consulting (2023). Singapore online insurance market, by enterprise size, insurance type, end user, trend analysis, competitive landscape & forecast, 2019–2029. Available at https://www.blueweaveconsulting.com/report/singapore-online-insuran ce-market (visited 14 Sept 2024).
Bolttech Insurance. Connecting you with more ways to protect the things you value. Available at https://bolttechinsurance.hk/en/ (visited 14 Sept 2024).
Bowtie Insurance. Homepage. Available at https://www.bowtie.com.hk (visited 14 Sept 2024).
Bowtie (2021). What does IA's "Fast Track" mean? Available at https://help.bowtie.com.hk/hc/en-gb/articles/4407712528153-What-does-IA-s-Fast-Track-mean (visited 14 Sept 2024).
Coverager.com (2020). ZA Insure obtains a digital life insurance license in Hong Kong. Available at https://www.coverager.com/za-insure-obtains-a-digital-life-insurance-license-in-hong-kong/ (visited 14 Sept 2024).

Dezan Shira & Associates (2024). Why Singapore. Available at https://www.aseanbriefing.com/doing-business-guide/singapore/why-singapore (visited 8 Feb 2025).

Enoch Yiu (2021). Hong Kong digital insurers such as OneDegree, Bowtie Life expand offering to tap tech-savvy clients, but yet to challenge traditional firms. *South China Morning Post*. Available at https://www.scmp.com/business/banking-finance/article/3158510/hong-kong-digital-insurers-such-onedegree-bowtie-life (visited 14 Sept 2024).

Fintech Hong Kong (2023). Hong Kong trails behind Singapore in digital insurance. Available at https://fintechnews.hk/20651/insurtech/hong-kong-trails-behind-singapo re-in-digital-insurance/ (visited 14 Sept 2024).

FINTECH GLOBAL (2024). How Singapore Is Redefining AML Compliance through Innovative Collaborations. Available at https://fintech.global/2024/04/17/how-singapore-is-redefining-aml-compliance-through-innovative-collaborations/ (visited 14 Sept 2024).

Frances Gagua (2021). How Digital Insurer Blue Is Revolutionising Hong Kong's Stagnant Insurance Industry. *Insurance Asia*. Available at https://insuranceasia.com/insurance/exclusive-in-focus/how-digital-insurer-blue-revolutionising-hong-kongs-stagnant-insurance-industry (visited 14 Sept 2024).

Gabriel Olano (2019). Great Eastern invests in digital tools for its agency force. *Insurance BUSINESS*. Available at https://www.insurancebusinessmag.com/asia/news/breaking-news/great-eastern-invests-in-digital-tools-for-its-agency-force-164283.aspx (visited 14 Sept 2024).

Gina Clarke (2020). Singapore launches world's first public-private partnership to create a new digital infrastructure. *The Fintech Times*. Available at https://thefintechtimes.com/singapore-launches-worlds-first-public-private-partnership-to-create-a-new-digital-infrastructure/ (visited 14 Sept 2024).

Great Eastern (2025). Main page. Available at https://www.greateasternlife.com/sg/en/personal-insurance.html (visited 17 Jan 2025).

HoldCover (2025). Main page. Available at https://www.holdcover.com/en/ (visited 17 Jan 2025).

Hong Kong Institute for Monetary and Financial Research (2023). The digitalisation of financial services in Hong Kong. Available at https://www.aof.org.hk/docs/default-source/hkimr/applied-research-report/drep.pdf (visited 14 Sept 2024).

Income (2018). Income launched Singapore's first Rainsurance to protect consumers against unpredictable surge pricing on ride-hailing platforms when it rains. Available at https://www.income.com.sg/about-us/corporate-information/press-releases/income-launched-singapore%E2%80%99s-first-rainsurance%E2%80%9D-to- (visited 14 Sept 2024).

Income (2025). Main page. Available at https://www.income.com.sg/ (visited 17 Jan 2025).

Jan Hou Chong (2023). Hong Kong, technically speaking. *The Actuary*. Available at https://www.theactuarymagazine.org/hong-kong-technically-speaking/ (visited 14 Sept 2024).

Ka Kay Lum (2020). Singlife's hybrid theory tested in Singapore's insurance forge. *The Ken.* Available at https://the-ken.com/story/singlife-singapore-digital-insurance/ (visited 14 Sept 2024).

Kwiksure (2025). Main page. Available at https://kwiksure.com/ (visited 17 Jan 2025).

Life Association Singapore (2024). Life insurance industry results. Available at https://www.lia.org.sg/media/4142/20240215_lia-4q2023-results_slides.pdf (visited 14 Sept 2024).

MoneyHero (2025). Main page. Available at https://www.moneyhero.com.hk/en (visited 17 Jan 2025).

Nanyang Technological University (IRFRC). Insurance risk and finance research centre. Available at https://www.ntu.edu.sg/irfrc/research/cyrim (visited 14 Sept 2024).

OneDegree Insurance. Homepage. Available at https://www.onedegree.hk/en-us (visited 14 Sept 2024).

RegistrationChina (2024). Singapore overtakes Hong Kong to become Asia's top financial center. Available at https://www.registrationchina.com/articles/singapore-overtakes-hong-kong-to-become-asias-top-financial-center/ (visited 14 Sept 2024).

Spherical Insights (2023). Singapore online insurance market size, share, and COVID-19 impact analysis, by insurance type, enterprise size, end user, and market insights, trends, forecasts to 2032. Available at https://www.sphericalinsights.com/reports/sing apore-online-insurance-market (visited 14 Sept 2024).

Statista (2024). Life and non-life insurance penetration in Singapore in 2022. Available at https://www.statista.com/statistics/1316272/singapore-life-and-non-life-insurance-penetration/ (visited 14 Sept 2024).

The Digital Insurer. Singapore's dynamic InsurTech map – in collaboration with the Singapore FinTech Association. Available at https://www.the-digital-insurer.com/dynamic-insurtech-maps/singapore/ (visited 14 Sept 2024).

ZA Insurance. Homepage. Available at https://insure.za.group/v2/en (visited 14 Sept 2024).

Athens Journal of Law - Volume 12, Issue 4, September 2026 – Pages 299-320

Protecting Minors in European Law: Consumer Regulation in Gaming

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The present work analyzes the profiles of legal and operational vulnerability that characterize the protection of minors in the gaming sector, with specific reference to contractual aspects and European consumer and data protection legislation. The examination of recent rulings by supervisory authorities highlights how the integration of manipulative schemes during the design phase, such as dark patterns and loot boxes, alters the users' contractual will and violates the principles of transparency and withdrawal. These mechanisms, aimed at prolonging gaming sessions, further promote the massive collection of data for aggressive commercial profiling, in stark contrast to the special protections reserved for minors by the GDPR. Having identified the limitations of parental responsibility and the power asymmetries caused by manipulative design, the remainder of the contribution will examine the remaining issues and the regulatory perspectives currently under consideration by the EU legislator.

Keywords: *minors; consumers; dark patterns; data protection; digital fairness.*

The Opportunities Offered By Gaming

Video games represent a significantly widespread entertainment worldwide, a factor of cultural expression and aggregation in large communities. However, beyond the apparently exclusively playful aspect, it is an area that hides behind it a fascinating world full of opportunities.

Indeed, its extraordinary economic and social vitality is confirmed by recent data attesting to its continuous expansion. In key European markets, revenues reached €26.8 billion, an increase of 4% compared to 2023. On the diffusion side, video games are now a mass phenomenon involving 54% of the European population between 6 and 64 years old. It is also necessary to dispel the stereotype that sees the *gamer* as a male teenager: the data reveal that 45% of gamers are women and that as many as 75% of users are adults, with an average age of 31 years old[1].

The implications on the employment front are also very interesting, with a growth of 1.8%, employing 116,419 professionals, with a female representation that constitutes 24.9% of professionals.

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[1]See the results of the 2025 report released by the Video Games Europe and European Games Developer Federation "All About Video Games" associations, which offers a complete and definitive picture of the video game sector in Europe, in terms of turnover, employment and number of players. The report is available at the following link https://www.videogameseurope.eu/wp-content/uploads/ 2025/10/VGE-2024-Key-Facts-Report_102025.pdf

This sector therefore represents a crucial link, straddling the digital and cultural sectors, accounting for more than 50% of the added value of the overall EU market for audiovisual content. Thanks to the constant growth and the consistent increase in terms of turnover, great attention is paid to this sector, including by the EU institutions, which in 2022 led to the development of a project focused on this area, "Understanding the value of a European gaming society".[2]

The real peculiarity of the video game industry is in the intimate connection with the themes of innovation, as well as in the bivalent nature, placed between high tech and the creative sector. The creation and development of such systems require the use of increasingly sophisticated technologies and infrastructures with increasingly high-performance and technological performance, whose skills pertain to increasingly vast sectors such as design, retail, education, marketing, virtual/augmented reality as well as online sales, a fundamental part of the sustainability of online business.

It is therefore a sector that has the undoubted merit of promoting innovation in Europe, the development of new technologies, such as artificial intelligence and virtual and augmented reality, contributing to the growth of digital infrastructures and skills. The related implications therefore do not remain tied to a purely recreational area, but instead find application in contexts such as education and training, where they contribute to developing creativity, critical thinking and technical knowledge.

As anticipated, the sector embraces a large category of users, contexts and age groups, but it is above all with respect to minors that it presents a greater factor of involvement. In the most recent report released by the Video Games Europe associations and the European Game Developer Federation[3], the number of gamers between 6 -10 years old (69%) and between 11 and 14 (85%) emerges, therefore belonging to sensitive categories and recipients of special protection. For this reason, specific reflections are necessary. For this category, in fact, gaming represents a real right. It is worth recalling[4] that Article 31 of the United Nations Convention on the Rights of the Child[5] establishes that children's rights include the right to play, to

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[2]For details of the project see https://digital-strategy.ec.europa.eu/en/policies/value-gaming The project "Understanding the value of a European video game society" provides insights into the many economic, cultural, financial and social impacts that video games have on our society and how this industry affects a range of policy areas. The related activities were developed in 2022 and had two main objectives: 1) to deepen the understanding of the video game sector in order to identify future policy options; 2) to create and nurture a network of actors and experts in the EU video game industry sector, in order to facilitate future exchanges and support its growth.

[3]All about Video Games, culture - creativity - technology european key facts 2024, available at:https://www.videogameseurope.eu/wp-content/uploads/2025/10/VGE-2024-Key-Facts-Report_1 02025.pdf

[4]Reference is made to the clarifications of the European Parliament, which reiterates and reports the contents of these rights, confirming them as fundamental in the harmonious psychophysical development of the child, cf. Consumer protection in online video games: a European single market approach, European Parliament resolution of 18 January 2023 Consumer protection in online video games: a European single market approach (2022/2014(INI)), recitals Q and P https://www.europarl.europa.eu/doceo/docum ent/TA-9-2023-0008_IT.html

[5] The UN Convention on the Rights of the Child (CRC) was approved by the United Nations General Assembly on 20 November 1989, and ratified by Italy on 27 May 1991 with Law No. 176. It consists of 54 articles and the text is divided into three parts, the first contains the statement of rights (Articles 1-41), the second identifies the bodies responsible for improving and monitoring the Convention (Articles 42-45), while the third describes the ratification procedure (Articles 46-54), source: https://www.unicef.it/convenzione-diritti-infanzia/articoli/

participate freely and fully in life and cultural activities appropriate to their age, to be part of the digital world in a way consistent with the evolution of their abilities. Play, therefore, as a factor of creativity and inclusion, which intervenes in an indispensable way in the cognitive and developmental training of the minor, in an immersive and inclusive way.

However, these great advantages also involve possible risks. With regard to the sector we are specifically dealing with, when gaming, from a simple leisure parenthesis, begins to dominate and control the player's life, the pastime turns into an enemy and can become the cause of further macro categories of disorders, also common to contexts other than video games, such as messaging apps[6] and social media, for which recent American court cases have inevitably attested to the harmful effects deriving from the use of the same[7]. These effects can also lead to psychic distress that the WHO has defined as "gaming disorder", corresponding to pathological addiction characterized by altered control over gaming and the normal management of one's life[8]. For a child, the typical symptoms of this pathological phase can manifest themselves in toxic behaviour, also deriving from possible exposure to inappropriate, sexist or racist content sometimes present in video games.

Furthermore, since it is a more sensitive category than that of adults, it is particularly susceptible to commercial techniques that aim to guide their behaviour or manipulate their emotions, through computer architectures that artfully guide the will of buyers.

In addition, the possible commercial influence, inserted in the flow of the game, can be malevolent with respect to vulnerable categories, such as minors, on whom this discussion will focus. These subjects are more sensitive to certain types of stimuli and can then suffer serious consequences. The basic concept is that becoming a user's habit is an essential factor for the survival of an app. For this reason, the goal of developers is to implement mechanisms that encourage its use and increase the terms of permanence and interaction.

To achieve this result, systems calibrated and studied on our brain structure are designed, with the application of the most proven principles of neuroscience. In a nutshell, mechanisms are exploited that increase the levels of dopamine, a neurotransmitter associated with the perception of pleasure. In addition to this, there are more or less random reward mechanisms that further stimulate this neurochemical response[9].

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[6]European Commission, Understanding the value of a European Video Games Society Final Report, 2023, ISBN 978-92-68-04965-5 doi: 10.2759/332575

[7]With regard to the potential adverse effects of social media, reference should also be made to the recent judgment of 26 March 2026, in which a Los Angeles County Superior Court jury found that Meta and Google were liable in negligence for deliberately designing platforms that trapped the Plaintiff, a young woman who begun using Meta's Instagram app and Google's You Tube app as a child, in a cycle of addiction causing her mental health harms. https://www.lboro.ac.uk/news-events/news/2026/march/us-social-media-case-meta-google/

[8]According to the World Health Organization, "gaming disorder" consists of a series of persistent or recurrent behaviors that take precedence over other interests in life and has included it in the International classification of diseases (ICD) or the official list of mental pathologies. https://www.who.int/news-room/questions-and-answers/item/addictive-behaviours-gaming-disorder

[9]Koepp, M., Gunn, R., Lawrence, A. et al. Evidence for striatal dopamine release during a video game. Nature 393, 266–268 (1998). https://doi.org/10.1038/30498; Aviv Malkiel Weinstein (2010) Computer

The brief framework examined indicates the presence of two essential factors that are the basis of those dynamics: the attempt to make the player remain within the virtual environment, to increasingly retain the user and promote purchases within the game; the opacity inherent in the design, which as we will see, follows logics that are sometimes not legitimate to favor the business model linked to the game and the massive collection of data, including personal data, of users.

This contribution therefore aims to examine the problematic profiles that characterize online gaming and the most frequent practices that present risk profiles, such as loot boxes and reward mechanisms for the monetization of data and user attention.

In this perspective, this paper aims to verify whether the current European regulatory framework is actually suitable to ensure the protection of minors from manipulative practices present in digital gaming environments, or whether the presence of any structural gaps makes further regulatory intervention necessary, also in view of the future Digital Fairness Act.

With the analysis of the current European legislation, mainly consumer, privacy and the Digital Services Act, as well as the comparison with the rulings of European and foreign authorities, the possible presence of structural gaps with respect to consumer protection, especially of the most vulnerable categories such as minors, will be assessed.

In the hypothesis of a current framework that is actually insufficient, possible options for intervention will be evaluated, such as strengthening the existing framework, including through self-regulatory instruments such as PEGI, or integration through the previously announced Digital Fairness Act, on the table of the European Commission to integrate the framework for the protection of the digital environment.

Contractual Protection of Consumers in Gaming Purchases

The value of video game-related purchases is constantly growing on a global scale. According to a US survey, total revenue will reach $225.30 billion, with an annual growth rate of 8.35% and a projected market volume of $352.10 billion by 2027.

With specific regard to revenues from in-app purchases, these are expected to reach $145.30 billion and a value of $1.25 billion compared to the revenue generated by paid apps[10].

In recent decades, the world of gaming has revolutionized its business model by moving from a product logic, in the then arcade and boxed, to a service logic with so-called pay-to-win features or with different levels of free use. In this scheme, the freemium model is mainly detached[11], based on a dual type of offer: the concession of

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and Video Game Addiction—A Comparison between Game Users and Non-Game Users, The American Journal of Drug and Alcohol Abuse, 36:5, 268-276 (1998).

[10]Data collected and processed through reports and https://www.statista.com/ analysis

[11]https://www.meegle.com/en_us/topics/game-monetization/freemium-game-models H. E. (Grace) Park, Designing engagement: Exploring affordances in freemium digital games, Technology in Society, Volume 81, 2025, 102840, ISSN 0160-791X, https://doi.org/10.1016/j.techsoc.2025.102840. The author explores the different levels of involvement in the various gaming experiences and the different design features, also highlighting the business models that underpin them and that have in fact pushed the evolution of digital video games. Especially the concept of freemium gaming, characterized by a first level of free use and a second level of payment.

the game is free of charge but within the game there are features, advantages or other game options that require payment. This arrangement certainly has the undoubted advantage of gathering a large number of players, given the initial absence of a payment, which represents an important source of business, thanks to the remuneration deriving from sales elements.

The market is constantly increasing and the gaming industry does not stop implementing new and profitable features such as multiplayer modes, augmented and virtual reality, subscriptions and other commercial strategies. Particularly flourishing is the area of purchases of gaming benefits such as: "skins" or aesthetic elements; tools to advantage in the game and to avoid advertising; the elimination of cool-down timers or waiting times; elimination of "grinding". [12]These features are then purchased by players through microtransactions, in apps or on the platform, which represent the real form of income in this sector, especially for free games[13].

The purchasing dynamics, often highly accelerated within the authenticated areas, in many cases escape the strict parameters provided for by current legislation. Specifically, the pre-contractual approach and the dynamics that distinguish purchases related to video games are often characterized by a certain opacity, as they are not very exhaustive or inaccessible to consultation. These inaccuracies concern both the pre-contractual phase and that of the management of the same contract, in contrast with the robust system of protection established at European level, among other things, by the requirements dictated by EU regulations. Among these, Directives No. 2011/83/EU (Consumer Rights Directive - CRD)[14] and No. 2005/29/EC[15] (Unfair Commercial Practice Directive UCPD), later transposed by the various national legal systems, deserve[16] specific mention.

In particular, art. 6 CRD, in prescribing the mandatory information to be provided to consumers in the event of distance purchases or negotiated away from

[12]See definition in https://it.wikipedia.org/wiki/Grind_(video games): term used in the field of video games, in particular in MMORPGs and J-RPGs, to indicate the repetitive execution, by the player, of primary or secondary quests with the sole purpose of growing the character, increasing its level or unlocking new content faster, so as not to be led to spend real money, often even at the expense of fun.

[13]A. Fachechi, Aggressive Marketing and in-game microtransactions: protection models, in Il Nuovo Diritto delle Società, Fascicolo Straordinario 2025 , Giappichelli – ISSN 2039-6880.

[14]DIRECTIVE 2011/83/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council

[15]Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive'), namely Article 7(1) which governs as misleading: a commercial practice which, in the specific case, having regard to all the characteristics and circumstances of the case, as well as the limitations of the means of communication used, omits material information which the average consumer needs in that context in order to make an informed transactional decision and thus causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise.

[16]In the Italian legal system, the matter is regulated within the so-called consumer law, Legislative Decree 6 September 2005, no. 206.

business premises[17], states that the same "must be appropriate to the communication technique used and expressed in a clear and understandable manner, also taking into

[17]Information requirements for distance and off-premises contracts: 1. Before the consumer is bound by a distance or off- premises contract, or any corresponding offer, the trader shall provide the consumer with the following information in a clear and comprehensible manner: (a) the main characteristics of the goods or services, to the extent appropriate to the medium and to the goods or services; (b) the identity of the trader, such as his trading name; (c) the geographical address at which the trader is established and the trader's telephone number, fax number and e-mail address, where available, to enable the consumer to contact the trader quickly and communicate with him efficiently and, where applicable, the geographical address and identity of the trader on whose behalf he is acting; (d) if different from the address provided in accordance with point (c), the geographical address of the place of business of the trader, and, where applicable, that of the trader on whose behalf he is acting, where the consumer can address any complaints; (e) the total price of the goods or services inclusive of taxes, or where the nature of the goods or services is such that the price cannot reasonably be calculated in advance, the manner in which the price is to be calculated, as well as, where applicable, all additional freight, delivery or postal charges and any other costs or, where those charges cannot reasonably be calculated in advance, the fact that such additional charges may be payable. In the case of a contract of indeterminate duration or a contract containing a subscription, the total price shall include the total costs per billing period. Where such contracts are charged at a fixed rate, the total price shall also mean the total monthly costs. Where the total costs cannot be reasonably calculated in advance, the manner in which the price is to be calculated shall be provided; (f) the cost of using the means of distance communication for the conclusion of the contract where that cost is calculated other than at the basic rate; (g) the arrangements for payment, delivery, performance, the time by which the trader undertakes to deliver the goods or to perform the services and, where applicable, the trader's complaint handling policy; (h) where a right of withdrawal exists, the conditions, time limit and procedures for exercising that right in accordance with Article 11(1), as well as the model withdrawal form set out in Annex I(B); (i) where applicable, that the consumer will have to bear the cost of returning the goods in case of withdrawal and, for distance contracts, if the goods, by their nature, cannot normally be returned by post, the cost of returning the goods; (j) that, if the consumer exercises the right of withdrawal after having made a request in accordance with Article 7(3) or Article 8(8), the consumer shall be liable to pay the trader reasonable costs in accordance with Article 14(3); (k) where a right of withdrawal is not provided for in accordance with Article 16, the information that the consumer will not benefit from a right of withdrawal or, where applicable, the circumstances under which the consumer loses his right of withdrawal; (l) a reminder of the existence of a legal guarantee of conformity for goods; (m) where applicable, the existence and the conditions of after sale customer assistance, after-sales services and commercial guarantees; (n) the existence of relevant codes of conduct, as defined in point (f) of Article 2 of Directive 2005/29/EC, and how copies of them can be obtained, where applicable; (o) the duration of the contract, where applicable, or, if the contract is of indeterminate duration or is to be extended automatically, the conditions for terminating the contract; (p) where applicable, the minimum duration of the consumer's obligations under the contract; (q) where applicable, the existence and the conditions of deposits or other financial guarantees to be paid or provided by the consumer at the request of the trader; (r) where applicable, the functionality, including applicable technical protection measures, of digital content; (s) where applicable, any relevant interoperability of digital content with hardware and software that the trader is aware of or can reasonably be expected to have been aware of; (t) where applicable, the possibility of having recourse to an out-of-court complaint and redress mechanism, to which the trader is subject, and the methods for having access to it. 2. Paragraph 1 shall also apply to contracts for the supply of water, gas or electricity, where they are not put up for sale in a limited volume or set quantity, of district heating or of digital content which is not supplied on a tangible medium. 3. In the case of a public auction, the information referred to in points (b), (c) and (d) of paragraph 1 may be replaced by the equivalent details for the auctioneer.4. The information referred to in points (h), (i) and (j) of paragraph 1 may be provided by means of the model instructions on withdrawal set out in Annex

account the manner in which the contract is concluded or the characteristics of the sector", such as to ensure awareness. In specifying that the provision of information is appropriate to the context in which the contract is concluded and to the characteristics of the sector, an important rule of conduct for operators is already being specified.

To this must also be added the greater extension carried out under the so-called Omnibus Directive[18], which amended and supplemented the provisions of the sector directives[19], further expanding the margins of protection in the field of digital services and content.

The aforementioned regulatory mandate requires that consumers have all the information relating to the electronic product and any goods that can be purchased within the game regarding their content. This information must be easily accessible and viewable in a clear and understandable way before the purchase of the game and on individual purchases, as well as transmitted to the consumer on a durable medium[20]. In this sense, it is appropriate to recall the guidelines of the European Commission[21] with regard to unfair commercial practices of companies towards consumers, which reiterate that pursuant to Articles 6 and 7 of the Directive, consumers must not be misled on aspects that may affect their decisions of a commercial nature". More specifically, Article 7(2) and Annex I, point 22), prohibit traders from concealing the commercial intent of the commercial practice".

Unfortunately, the current context of purchase within video games is characterized by several practices that are particularly in contrast with the current regulatory requirements. The most encountered problems relate to a lack of information on aspects relating, among other things, to subscriptions and the methods

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I(A). The trader shall have fulfilled the information requirements laid down in points (h), (i) and (j) of paragraph 1 if he has supplied these instructions to the consumer, correctly filled in.

[18]Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC, Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards better enforcement and modernisation of Union consumer protection rules https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32019L2161&from=EL, defined as the Omnibus Directive, transposed in Italy with Legislative Decree no. 26 of 7 March 2023, which makes amendments to the Consumer Code, integrating multiple provisions on unfair terms, unfair commercial practices, unfair competition, untruthful commercial communications, transparency towards consumers in addition to the applicable sanctions.

[19]See amendment to art. 2 of Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No. 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive'), transposed in Italy by Legislative Decrees No. 145 and 146 of 2 August 2007, integrated into the Consumer Code and Art. 2.11 of Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council.

[20]In this sense, most recently, the recent introduction of art. 49-bis of the Consumer Code which integrates the additional information obligations specific to contracts concluded on online marketplaces, relating above all to purchases of digital goods on platforms.

[21] Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market (2021/C 526/01) of 29 January 2021.

of renewal, withdrawal[22], timing and methods of reimbursement. In addition, particular complaints concern commercial practices, objectively widespread for the great economic success to the benefit of the company's business, which openly violate the aforementioned regulations.

A significant example is that of the so-called loot boxes, which can be defined as "a particular set of microtransactions or in-game purchases[23]. They allow you to randomly obtain a certain amount of game elements, not previously known to the players, which can have a direct effect on game performance, or aesthetic or choreographic decorations without effects on the gameplay".

The peculiarity is that the player does not know the contents of the loot box until the moment of opening, therefore at a time after the payment or the behavior required to obtain it, with uncertainty about the reward or benefit deriving[24].

Loot boxes are present in different and common types of games such as cards, *esports*, role-playing games, even distributed by large channels such as video games for consoles, app marketplaces for smartphones and tablets[25]. Loot boxes can be purchased with real currency, such as a microtransaction, with virtual in-game currency and, finally, as a reward for player behavior such as completing missions, obtaining milestones or passing levels.

The uncertainty about their actual content, and therefore the randomness that characterizes them, can be orchestrated by algorithmic systems, such as those of Dynamic Game Balancing[26], which decide on the assignment of content based on parameters related to the user, also piloting the outcome of the game or operating on the user satisfaction mechanism[27].

The often-obscure mechanism of operation of these loot boxes in the literature has led over time to associate their content with the dynamics of gambling. This juxtaposition is more frequent when the contents can be converted into cash or exchanged in the secondary market, giving rise to the phenomenon called *gambling-ification*[28]. This reason has

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[22] M.L. Chiarella, "Algorithmic bargaining", pp.45 et seq., Giuffrè editore, Milan, 2016.

[23] Provision of the Italian Competition Authority, Order no. 28368 PS11594 - ELECTRONIC ARTS-PURCHASES IN VIDEO GAMES

[24] A. Fachechi, "Aggressive marketing and in-game microtransactions: protection models" in which he literally talks about the "cost of luck" (par.0), Il Nuovo Diritto delle Società, Giappichelli, available online https://www.nuovodirittodellesocieta.it/Article/Archive/index_html?ida=1325&idn=198&idi=-1&idu=-1

[25] See NCC report INSERT COIN How the gaming industry exploits consumers using loot boxes 31.05. 2022 online at: https://storage02.forbrukerradet.no/media/2022/05/2022-05-31-insert-coin-publish. pdf

[26] Y. Arifin, M. Mario, A. Levina, A Review of the Trends, Methods, and Impacts of Dynamic Game Balancing, (2025) DOI: http://dx.doi.org/10.62527/joiv.9.6.3436

[27] Interview with Prof. Antonio Gorgoni. The European Commission's Guidelines pursuant to art. 28 SLD: privacy and autonomy of the minor, blog Redazione Diritto Mercato e tecnologia, 9/1/2026, https://flore.unifi.it/retrieve/26bab3fe-6412-40b0-a9ff-220a72289660/Intervista%20al%20Prof.%20Antonio%20Gorgoni.%20Le%20Linee%20Guida%20della%20Commissione%20europea%20ai%20sensi%20dell_art.%2028%20DSA_%20privacy%20e%20autonomia%20del%20minore%20-%20Diritto%20Mercato%20Tecnologia.pdf

[28] CERULLI-HARMS, Dr & Michaelsen, Frithjof & MÜNSCH, Marlene & THORUN, Christian & Hausemer, Pierre. (2020). Loot boxes in online games and their effect on consumers, in particular young consumers.; Francisco J. Sanmartín, Judith Velasco, Fátima Cuadrado, Juan A. Moriana The thrill of chance: Psychophysiological responses in loot boxes and simulated slot machines (2024) https://www.sciencedirect.com/science/article/pii/S2451958824001787

prompted several states such as Belgium to declare them illegal[29] under the national legislation on gambling law, providing for very high penalties in case of violation.

In addition, there are several rulings, EU and worldwide, that signal attention to this type of practice. Very recent, for example, is the decision of 16/6/2026 of the Court for Children and Youth of the Federal District in Brazil, which condemned major video game companies and app store operators to pay damages in the amount of about 333 million Brazilian reais (65 million dollars)[30] for implementing unfair practices, based on addiction mechanisms, to the detriment of minors in particular.

The scope of this decision is part of a regulatory context of great prospects, given that in September 2025 Brazil adopted the 'Estatuto Digital da Criança e do Adolescente', so-called ECA Digital[31]. This legislation aligns with the European framework provided for by the DSA and imposes, among other things, the design of secure online services, the express prohibition of profiling, targeted advertising for minors, paid loot boxes for games that are aimed at or accessible to minors[32]. This is a particularly significant legislation, in terms of the protection of public health and children's rights, which aims to protect, with penalties of up to 10% of the turnover of the defaulting company, the psychological mechanisms affected by these practices, which especially for this category of users, represent an important node of vulnerability.

On the US side, the protection of minors is entrusted to the Children's Online Privacy Protection Act (COPPA) of 1998 but in terms of unfair practices, such as loot boxes, the picture appears more fragmented and structured on a sectoral basis rather than on an organic discipline, since there is no federal law specifically dedicated to these aspects. The most relevant aspects of the protection methods adopted emerge in terms of the decisions of the supervisory authorities. Among these, it should be noted that in January 2025 the Federal Trade Commission reached a $20 million settlement with Cognosphere, the distribution company of Genshin Impact, for deceptive practices relating to the probabilities of loot boxes and for violations of COPPA regulations, with a ban on the sale of loot boxes to minors under the age of 16 without parental consent and the disclosure of probabilities in terms of current currency[33]. On a regulatory level, it is also worth noting the legislative action of New York which, with bills A9044 and S10091 of 2025[34], introduced proposals to prohibit the sale of loot boxes to minors and impose transparency on the real chances of winning them. Also in

[29] https://www.bbc.com/news/technology-43906306 and https://blog.promise.legal/loot-box-laws-game-developers/

[30] 1ª Vara da Infância e da Juventude do Distrito Federal, decision of 9 June 2026; see Licks Attorneys, 'Brazil's First Loot Box Ruling: Key Takeaways for Digital Companies', 24 June 2026, https://www.lickslegal.com/articles/brazil-s-first-loot-box-ruling-key-takeaways-for-digital-companies/

[31] Law No. 15.211, of 9 September 2025 (Estatuto da Criança e do Adolescente Digital – ECA Digital).

[32] P. P. Rodrigues Santos, Digital status of children and adolescents: regulatory and inspection challenges, Ibero-American Journal of Humanities, Sciences and Education, v. 11, n.10, out. 2025.

[33] Federal Trade Commission, Press Release, January 2025, relating to the transaction with Cognosphere Pte. Ltd. (Genshin Impact) for misleading practices regarding loot box probabilities and violation of the Children's Online Privacy Protection Act (COPPA).

[34] New York State Senate, Bill S10091/A9044, 2025/2026. The first on gamification and gambling has been postponed to the Senate Internet and Technology Committee in April 2026, while the path of the second, on loot boxes, appears more uncertain.

2025, other states, such as Utah, Texas and Louisiana have passed the App Store Accountability Acts, which also aim for user age verification mechanisms[35].

From the comparison of the experiences of these states, it is possible to see that the US model is fragmented and reactive, in contrast to the prohibitions provided for by the regulatory line adopted by Brazil and by the transversality of the various regulatory instruments (DSA, GDPR, UCPD/CRD) provided for by Europe, the actual completeness of which will be returned to in the final chapter.

At the European level, and more specifically in the Italian context, reference can be made to two decisions of the Italian Competition Authority (AGCM) .

The first concerns the proceeding[36] against Activision Blizzard, initiated in relation to the Overwatch and *Heartstone* video games. The disputes concerned omissions inherent in consumer provisions, especially those relating to transparency on the real characteristics of the offer by Activision Blizzard. The first concerns misleading and omissive information in games presented as "free to play", therefore without an initial cost to obtain their use, about the real presence of *in-game purchases*[37]. Although, according to the clarifications provided, these *in-game* purchases were not necessary for the gaming experience or the actual completion of the sessions, their existence had to be properly explained and detailed in the terms set out in art. 6 CRD. This omission took on a more serious character under the circumstance that these games could be used by children and adolescents, for whom the obligation to make the information more comprehensible had not been complied with. With the aggravating addition that this lack of information could also affect the parents' decision-making awareness at the time of purchase.

Finally, further objections related to the presence of *loot boxes* and the presence of a design mechanism, aimed at inducing minors to make purchases or to solicit it from their parents, transmitting messages aimed at this purpose.

The procedure ended with the acceptance of the commitments by the company, which undertook to implement measures such as the clear and prominent display of PEGI pictograms[38], a digital labeling system that describes content and information on the recommended age to use a game, the introduction of a *Parental Control* systems that require the active consent of the parent for purchases, with clear transparency systems for loot boxes with an explanation of how they work.

More recently, the AGCM has launched two further investigations (PS13020-PS13039),[39] still ongoing, the contents of which are not yet disclosed, again against

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[35]Utah S.B. 142 (App Store Accountability Act, 2025); Texas S.B. 2420 (App Store Accountability Act, 2025); Louisiana, App Store Accountability Act (2025).

[36]Compare AGCM Provision no. PS11595 - Activision Blizzard-purchases in video games - Provision no. 28452, published in the weekly bulletin no. 48 of 7/12/2020, available at the link https://www.agcm.it/dotcmsdoc/bollettini/2020/48-20.pdf

[37]M. Magaldi, *Electronic games between freedom of consent and health protection*, The New Law of Society, Extraordinary Issue 2025, Giappichelli – ISSN 2039-6880

[38]As described in the provision referred to in paragraph 16, "The Pan European Game Information (PEGI) is an age-based video game rating system that uses five age categories and eight content descriptions. The PEGI rating examines the suitability of a game by providing a minimum age recommendation based on the content of the game. Established in spring 2003 to help European parents make informed decisions when purchasing computer games, the PEGI system has replaced several national age rating systems and has established itself as a single system in most European countries".

[39]https://www.agcm.it/media/comunicati-stampa/2026/1/PS13020-PS13039

Activision Blizzard, this time for the video games *"Diablo Immortal"* and *"Call of Duty Mobile"*. The investigations focus on alleged aggressive and deceptive commercial practices, in violation of the Consumer Code, with a focus on the *dark pattern*[40] to induce frequent gaming and unaware or unwanted purchases. The main critical profiles concern the opacity on the value of virtual currencies, limited-time offers, *Parental Control* functions pre-set in a way that does not protect minors and the inadequacy of information on contractual rights and consent to data processing, including for profiling purposes. These investigations underline the Authority's constant attention to the protection of underage consumers in this sector.

Another useful case to better understand these issues correspond to the very recent coercive action[41] brought by the Consumer Protection Cooperation Network[42] (CPC), against Star Stable Entertainment AB for possible risks to the detriment of players of the Star Stable Online game. Following the complaint of the Swedish Consumer Association, the CPC has issued a common position[43] with key principles on the safety of gaming environments. The contested practices have possible harmful effects for minors such as: advertising content that persuades children to buy or convinces adults to buy virtual currency or in-game items; the use of pressure techniques to purchase such as offers with a limited time limit; lack of clear and transparent information, especially calibrated on the users of minors, in relation to the actual value of the virtual currency, with the consequence of making them spend more than they want; the company's control over the effective transparency of the informative content of influencers who promote the company's products and the absence of manipulative techniques to the detriment of minors.

The investigation is still underway, but the case already allows us to begin to frame fundamental principles in the design of the game environment, the purchase and use of virtual currencies.

These principles have been represented by the CPC in the guidelines "The Consumer Protection Cooperation Network's Key Principles on In-game Virtual

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[40]On these aspects, see the analysis that will be addressed in paragraph 4 of this article.

[41]See the European Commission press release of 21/3/2025 "Commission and national authorities take measures to protect children from harmful practices in video games" http://ec.europa.eu/commission/presscorner/detail/it/ip_25_831

[42]It is an authority established by Regulation (EC) No 2006/2004 of the European Parliament and of the Council of 27 October 2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws (the Regulation on consumer protection cooperation) (Text with EEA relevance) and whose powers were then extended by the subsequent Regulation (EU) 2017/2394 of the European Parliament and of the Council of 12 December 2017 on cooperation between national authorities responsible for the enforcement of consumer protection laws and repealing Regulation (EC) No 2006/2004, composed of the national authorities that are vested with competence in the field of consumer protection. The CPC operates under the coordination of the European Commission and addresses the various infringements of European legislation relating to consumer protection in the single market.

[43]Common position by competent authorities under Article 19(3) of Regulation (EU) 2017/2394 and concerning the commercial practices of Star Stable Entertainment AB https://commission.europa.eu/document/download/030ff1d8-526e-4807-8a7e-1505f9e235d9_en?filename=Common%20Position% 20on%20Star%20Stable%20Online%20.pdf&prefLang=it

Currencies[44]" which concern virtual currency and list seven criteria to be respected in contractual relations with consumers. These criteria have a very wide extension and offer useful criteria in terms of interpretation.

The first relates to the provisions of art. 6 (1) (d), 7 of the UCPD and art. 6 (1) (e)[45] CRD which requires the display of clear and transparent prices, also in relation to the exact correspondence with the legal tender currency. In addition, the price must be expressed objectively, without false alterations due to currency exchanges, packages of offers or in general to any other parameter without certain references. The second, again in contrast with the regulatory references already mentioned, concerns the prohibition of currency obfuscation, with the use of multiple currencies or the request for multiple exchanges (e.g. buying gems to buy coins to buy the sword) which complicate the immediate understanding of the price actually paid for microtransactions carried out in the same game context.

The third principle, linked to the protection of Articles 5, 8 and 9 UCPD, concerns the prohibition of using strategies such as bundles of goods or currencies (so-called bundles) or linked to a minimum purchase (e.g. goods with a reduced cost but purchasable only after certain quantities are exceeded) which result, respectively, in forcing consumers to make unwanted purchases or excessive spending.

The fourth principle, in compliance with art. 6 CRD, requires clear and comprehensible pre-contractual information. This information includes, but is not limited to: the main characteristics of the in-game digital content or services or virtual currency; the identity and contact details of the professional; the price and value translated into real currency; the existence of the withdrawal conditions (referred to in the following principle); the legal guarantee of conformity required by law for digital content and services; payments and delivery.

The fifth principle relates to the right of withdrawal, referred to in Articles 9 to 16 of the CRD. Traders must clearly establish the rules for withdrawal, framed by the legislation in at least 14 days from the purchase in the case of unused currency. In this regard, it is interesting to mention the provisions of Directive (EU) 2019/2161[46], following the amendments introduced by Directive (EU) 2019/770[47] regarding the definition of digital content and services, where it imposes important clarifications on the guarantees that must accompany the right of withdrawal. It

[44]CPC, The Consumer Protection Cooperation Network's Key Principles on In-game Virtual Currencies, https://commission.europa.eu/document/download/8af13e88-6540-436c-b137-9853e7fe866aen?file name=Key%20principles%20on%20in-game%20virtual%20currencies.pdf

[45]See footnote 18 for the content of the article.

[46]Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards better enforcement and modernisation of Union consumer protection rules.

[47]Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services (Text with EEA relevance), the definitions set out in Art. 2 (1) 'digital content' means data produced and supplied in digital format; (2) 'digital service' means a service that enables the consumer to create, transform, store or access data in digital form; or (b) a service that enables the sharing of data in digital format uploaded or created by the consumer and other users of that service or any other interaction with such data; (3) 'goods with digital elements' means any tangible movable property that incorporates or is interconnected with digital content or a digital service in such a way that the absence of such digital content or digital service would prevent the performance of the functions of the good.

seems useful to recall recital (35) of Directive (EU) 2019/2161 where it specifies that in the provision of digital services through a non-material medium, characterized by a single supply by the trader to provide the consumer with one or more specific elements of the digital content, they remain subject to the exception to the right of withdrawal referred to in Article 16, first paragraph, letter m), of the CRD which provides that the consumer loses this right once the performance of the contract has begun. However, this assumption is valid provided that the consumer has given his prior express consent to start the performance during the period of the right of withdrawal and has accepted that he would thus lose his right. In the design phase, it is therefore essential to adequately prepare the consent collection form. In addition to this, there is also what was introduced by Directive (EU) 2023/2673[48], which introduced specific requirements in Article 11 bis for the withdrawal of purchases made in the online environment, requiring the provision of an interface that aims to make the exercise of this right simple and intuitive.

Returning to the principles of the CPC, it is now appropriate to examine the sixth, which requires compliance with the principle of fairness of contractual clauses in compliance with the provisions of art. 3 (1) and (3) UCPD. Compliance with the principle of transparency and clarity in the wording of texts is strongly affirmed, which must be understandable by the diversified types of users who use these services. In addition, the absolute prohibition of preparing unfair terms, which unjustifiably prejudice the rights of users, is reiterated. In this regard, the guidelines prohibit the imposition of terms that are excessively unbalanced towards the trader such as: those that extend the unilateral right to terminate, modify or withdraw at any time, in an unfair manner, the digital content or services purchased or the virtual gaming currencies purchased; those that limit or deny the exercise of rights by consumers; those that allow professionals to be able to remove, unilaterally and without any limitation, content or features of the video game purchased by players; change the value of in-game currencies without any discrimination; prohibition of access to the game with limitation of the exercise of complaint rights by players.

The last principle relates to the protection of players, with specific regard to vulnerable individuals, with respect to whom it is forbidden to leverage their respective cognitive biases for the economic advantage of tech companies.

Another issue is related to the hypotheses of purchases by minors made outside the control of parents or guardians. Given the limits provided for by the legislation regarding the possibility for minors to conclude a contract[49], there are frequent cases in which they find themselves purchasing video games or related features, due to automatic payment mechanisms, outside of control or verification[50]. For the general

[48]Directive (EU) 2023/2673 of the European Parliament and of the Council of 22 November 2023 amending Directive 2011/83/EU as regards financial services contracts concluded at a distance and repealing Directive 2002/65/EC

[49]Think of the reality of the Italian legal system, which links the case of voidability, for the provision of art. 1425 of the Civil Code, to contracts entered into by minors under 18 years of age, as they do not possess the capacity to act pursuant to art. 2 of the Civil Code cf., F. Gazzoni, Manuale di diritto privato, Milan, 2021.

[50]With regard to the issue of the voidability of online purchases, see "Daily life of the online minor. Between protection needs and technological limits" in Rivista di Diritto dei Media n.1/2022 https://www.medialaws.eu/rivista/vita-quotidiana-del-minore-online-tra-esigenze-di-tutela-e-limiti-tecnolo gici/

comparison of the responsibility of parents and guardians on the control of the activities of those subject to their respective control[51], it should be noted that, although monitoring tools are available, to date there is a lack of integrated and truly effective solutions capable of implementing it in a stringent manner.

Hacking the user: Dark Patterns and Consensus Bugs as Design Flaws

The pervasiveness of gaming contexts and the related unfair and aggressive commercial practices, mentioned above, is also expressed through the very designs of the video game, which conceal traps aimed at identifying and exploiting any situations of vulnerability of the player, especially where minor.

To frame the context of reference and examine those factors that materially lead the user to fall into these traps, it seems very useful to recall what was described by the European Parliament, in[52] its resolution of 12 December 2023 on the design of addictive online services and consumer protection in the EU Single Market. The resolution first notes that "in today's attention-based economy, certain technology companies use the design and functionality of systems to exploit users' and consumers' vulnerabilities in order to capture their attention and increase the amount of time they spend on digital platforms; whereas many digital services, such as online games, social media, film, series or music streaming services, marketplaces or online stores, can be designed to ensure that users stay on the platform for as long as possible, so as to maximise the time spent there, the money spent by users, the amount of data collected, as well as the activity, interactions, content production, network development and data sharing; that this applies in particular to data monetization services". Therefore, the goal of the digital platform or service is to capture the user's attention, time, personal data, monetize it and develop the greatest possible dependency. In the resolution, the term "design" is declined in several high-impact variables such as "manipulative", "addictive" and "behavioural", all with the meaning of manipulations that involve risks such as digital addiction and induce piloted behaviours, leveraging the user's vulnerabilities.

The techniques described so far are the symptomatic expression of a larger and more insidious phenomenon, dark *patterns*[53]. These are deceptive designs that aim to alter or circumvent the user's will for the benefit of the professional. To do this,

[51] E. Andreola, The minor's online purchases between invalidity of the act and parental responsibility, in Contr. e impr., 2, 2018, 953 ss.

[52] Designing addictive online services and protecting consumers in the EU Single Market European Parliament resolution of 12 December 2023 on designing addictive online services and consumer protection in the EU Single Market (2023/2043(INI))

[53] M. Sameen, A. Rashid, Dark Patterns in Video Games: An Exploratory Study, https://conpro 24.ieee-security.org/papers/sameen-conpro24.pdf; E. Veiga, N. Silva1 b, B. Gadelha, H. Oliveira, T.Conte, Dark Patterns in Games: An Empirical Study of Their Harmfulness; S.Niknejad, T. Mildner, N. Z., Susanne Putze, R. Malaka, Level Up or Game Over: Exploring How Dark Patterns Shape Mobile Games, https://dl.acm.org/doi/10.1145/3701571.3701604 (2024); T. Montefiore,P. Formosa Dark Patterns, Meet the Gamer's Dilemma: Contrasting Morally Objectionable Content with Systems in Video Games, https://journals.sagepub.com/doi/10.1177/15554120251319173?__cf_chl_f_tk=6Nd6X1zDFnQ7z4RBRjh5EC.6K6QZGs20zuSofuwUCBw-1782905997-1.0.1.1-NPV24qclwz3nbKUswaz5wrBN.125rGeWEmxs821M9hQ (2025)

"gamification" techniques are frequently used, i.e. behavioural designs based on reward mechanisms that reward the completion of certain tasks and give users the illusion of choice and control. Behind this curtain, however, lies a deliberately and carefully designed sequence of interactions.

These are not mere aesthetic or *bad design* choices, but real architectures, intentionally designed to subvert the user's decision-making autonomy, pushing him towards the already mentioned behaviours (purchases, data transfer, dwell time) that he would not have adopted in conditions of full freedom and awareness.

In this scenario, the design of the interface can cease to be a neutral tool for the use of the service and become, legally, the tool through which a defect of consent is perfected[54].

From an analysis carried out by the European Parliament in the resolution on consumer protection in online video games[55], it emerges in this context the frequent use of *dark patterns,* such as manipulative and distorting designs[56], capable of compromising the consumer's freedom of choice. Think, for example, of the case in which designers leverage manipulative elements, such as the proposition, in critical phases of the game, of microtransaction offers of items to overcome critical phases of the game, as well as in the pervasive proposition of commercial offers, also through the use of visual or acoustic effects (increase in volume at particular moments) aimed at pressing the player.

Due to the obvious economic implications deriving from the use of these tools, the digital industry invests heavily in perfecting and expanding their functionalities. Over time, in fact, their capacity has increased and the predictive and analytical potential is enhanced thanks to the integration of algorithmic models, based on artificial intelligence. For this reason, the doctrine today speaks of tools enhanced by dark patterns or Hyperdarkpatterns[57], characterized by great pervasiveness and extreme precision.

In the aforementioned resolution, a specific section is then dedicated to how to ensure a safe online environment for users of online video games (par. 41 et seq.),

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[54]G. Guerra The Impact of Dark Patterns on User Consent: the European Way to Address New Vulnerabilities. in Giustiziacivile.com In-depth analysis of 19 August 2022; G. Versaci, Consent to the processing of personal data and dark patterns between optionality and conditionality, The new commented civil laws, 2022.

[55]Consumer protection in online video games: a European single market approach- European Parliament resolution of 18 January 2023 Consumer protection in online video games: a European single market approach (2022/2014(INI)) (2023/C 214/03) https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:52023IP0008

[56]Staffan Björk -Chris Lewis-José P Zaga, Dark Patterns in the Design of Games,l, https://core.ac.uk/reader/301007767

[57]A. Scaffidi, V. Forte From Dark Patterns to Hyper-Engaging Dark Patterns: for a modern application of the prohibition pursuant to art. 25 DSA, Medialaws, 2/2025, pp. 430-442. The authors highlight the evolution from traditional *Dark Patterns* (static and graphic) to Hyper-Engaging Dark Patterns (HEDPs), dynamic tools designed to maximize interaction and induce unintentional behavior (e.g. impulsive purchases). With specific regard to art. 25 DSA, the authors denounce a lack of protection, due to the sanctioning restriction of misleading graphic interfaces, leaving HEDPs unpunished. The proposal is that of an extensive interpretation of the rule that prohibits any architecture, even of an algorithmic nature, capable of "compromising" the autonomy of the user, thus overcoming the current disparity of protection between large platforms (VLOP) and smaller operators.

highlighting the role of PEGI [58]and other parental control systems, as useful tools to also support the parental role and to create a safe environment for players.

To properly understand the reference context, the role of the additional applicable regulations cannot be overlooked, first of all the Digital Services Act (DSA) [59] which aims to create a safe and predictable online environment, especiaslly for the protection of minors. The DSA applies to all intermediaries and online platforms in the EU, small and medium-sized enterprises are exempt from some rules[60], with specific obligations for online platforms and very large search engines, so-called Very Large Online Platforms (VLOP) and Very Large Online Search Engine (VLOSE).

In this context, Article 25 of the DSA, located in the section dedicated to the provisions applicable to providers of online platforms, assumes fundamental importance[61]. regardless of the qualification of the latter as VLOPs[62] or VLOSEs. The first paragraph of Article 25 introduces an express and wide-ranging prohibition, imposing an obligation on digital services providers not to design, organise or operate their online interfaces in such a way as to deceive or manipulate the recipients, or to materially distort or otherwise impair their ability to make free and informed decisions.

In the context of gaming, this provision becomes applicable in several circumstances. The first is the indirect intermediation of marketplaces or app stores (e.g. PlayStation Store, Steam, Nintendo eShop) which, as in the case of Apple Store and Google Play, can also be VLOPs. As online platforms[63], bound by the provisions of the DSA, they are prohibited from designing their interfaces in such a way as to deceive or in such a way as to manipulate the user. In the case of marketplaces, the mitigation obligations provided for by art. 34 and 35 DSA are particularly important, given their impact on minors. Platform operators may be held liable in the presence of violations of the duties of diligence and failure to manage the risks ascertained.

Even outside of these hypotheses, the DSA finds full application in the updated context of video games, which are increasingly real social ecosystems, characterized by public chats, open communication systems with the exchange of messages and links or where players can create and upload their own content (personalized maps, game skins, etc.). In fact, when platforms offer a hosting service for dissemination to the public, from simple software producers they become providers of online platform services[64], becoming directly subject to the obligations of the DSA and therefore to the obligations of algorithmic transparency, to reporting and removal systems, and with the aforementioned prohibition of dark patterns pursuant to art.

[58]To this end, the PEGI https://pegi.info/it/controlloparentale index is recommended as a good practice and a starting point for the development of new tools.

[59]Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act) https://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32022R2065

[60]M.L. Chiarella, Digital Markets Act (DMA) and Digital Services Act (DSA): New Rules for the EU Digital Environment, Athens Journal of Law - Volume 9, Issue 1, January 2023 – pp. 33-58

[61]This is section 3 of the DSA, where there is, in Article 19, a partial exclusion for micro and small enterprises.

[62]The list of VLPOs currently designated by the Commission is available at the following link https:// digital-strategy.ec.europa.eu/en/policies/list-designated-vlops-and-vloses

[63]Article 3, letter i) of the DSA, subjects required to comply with the provisions of the DSA.

[64]Pursuant to art. 3 lett.i) DSA

25. However, on the effective operation of these general prohibitions, it is necessary to clarify the subsidiarity clause contained in the second paragraph of Article 25.

This rule establishes that the prohibition introduced by the DSA does not apply if the conducts, practices or specific design configurations are already fully regulated by the sector provisions contained in the UCPD or in the General Regulation on the protection of personal data (EU) no. 2016/679 [65]. The rule does not simply seek to operate a division of jurisdiction but describes the field of action of the gaming sector, intensely crossed by various regulations. The provision has the function of limiting the competence of the DSA to all those cases where consumer legislation on the side of microtransactions does not fall, on the one hand, and the processing of personal data on the other.

This safeguard clause then allows the DSA to become applicable only when the UCPD, modernized thanks to the Omnibus Directive, and the GDPR, with the provisions that we will see shortly, fail to be applied.

The relevant element, however, is found in art. 28[66], which provides for the transition from the mere responsibility of the user to the so-called *safety by design*. On the part of online platforms accessible to minors, to implement appropriate and proportionate measures to ensure a high level of privacy, security and protection. This duty, focused on the child, interacts with the broader framework of systemic risk outlined by the DSA, since the risks to the protection of minors must be appropriately identified, assessed and mitigated by large online platforms and search engines. The scope of application of the rule follows a sector, which certainly also includes gaming platforms, in which the issue of the protection of users and in particular of minors becomes more complex and delicate. In this sense, the scope of the regulation is disruptive because it revolutionizes the system of protections and responsibilities in the control system: it is the platform that must be structurally secure, preventing upstream exposure to systemic risks such as hidden profiling or habituation mechanisms.

The explanation of this principle has found practical expression by the European Commission in the "Guidelines on measures to ensure a high level of privacy, safety and protection of children online, pursuant to Article 28, paragraph 4, of the DSA".[67] The purpose of the guidelines is to create an exemplary list of measures to protect children from exposure to possible online risks such as bullying, grooming for harm, sexual abuse or extortion, recruitment into criminal gangs, promotion of violence or terrorism. The measures are also provided for to prevent

[65] REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 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).

[66] Art. 28 DSA provides: Online protection of minors 1. Providers of online platforms accessible to minors shall take appropriate and proportionate measures to ensure a high level of privacy, security and protection of minors on their service. 2. Providers of online platforms shall not present profiling-based advertising as defined in Article 4(4) of Regulation (EU) 2016/679 using the personal data of the recipient of the service on their interface if they know, with reasonable certainty, that the recipient of the service is a minor. 3. Compliance with the obligations laid down in this Article shall not oblige providers of online platforms to process additional personal data in order to assess whether the recipient of the service is a minor. 4. The Commission may, after consulting the Board, issue guidelines to assist providers of online platforms in the application of paragraph 1.

[67] Communication from the Commission – Guidelines on measures to ensure a high level of privacy, safety and security for minors online, pursuant to Article 28(4) of Regulation (EU) 2022/2065-C/ 2025/6826

the risks associated with the inappropriate use of online platforms including with respect to gambling and video games[68].

In line with these guidelines, in order to meet the requirements of art. 28 par.1 DSA, adequate and proportional measures must be adopted to ensure a high level of security for the protection of minors. The rights to be protected are not only those relating to security, but also to the fundamental rights recognized to the minor, as enshrined in the Charter of Fundamental Rights of the EU and the United Nations Convention on the Rights of the Child. The affirmation of the protection of private life, privacy[69] and security by default is also fundamental, committing platforms accessible to minors to the integration of high standards of security and protection throughout the life cycle of the data. From the design to the provision of the service, it is also necessary to respect the peculiarities of the minor age with respect to the delicate developmental, cognitive and emotional process of minors.

A decisive point of these guidelines concerns the methods of age verification, understood as a necessary measure to ensure the protection and safety of minors, guaranteeing an authentication procedure that reserves them access only to places allowed to them but with respect for private life.

According to the Commission, the *age verification*[70] mechanism would be necessary in the event that the minor may come into contact with products or services that may represent a real risk, provided that there are no alternative protection measures. Among the cases expressly mentioned, in addition to the sale of alcohol or tobacco, access to any type of pornographic content and content related to gambling deserve a mention, due to the connection with the issue we are dealing with. Certainly, these aspects, which do not represent the "core" purpose of a gaming platform, can however constitute serious side effects, in the terms already observed.

Among the cases expressly mentioned, in addition to the sale of alcohol or tobacco, access to any type of pornographic content and content related to gambling deserve a mention. Recently, at the institutional level, the need to overcome this fragmentation has been met by the initiative of the European Commission, which has made available[71], which consists of a common model called "Blueprint for an age verification solution to help protect minors online". This solution, conceived as an open-source tool harmonized at European level, aims to reconcile the protection of minors and the protection of personal data through a free age certification mechanism

[68]On the reconstruction of the structure of the guidelines, see the Interparliamentary Conference on "Towards a safer and more innovative Digital Europe: delivering on the promises of the Digital Services Act (DSA) for citizens and markets", Billund 3-4/11/2025.

[69]On the design requirements inherent in platforms and in particular compliance with data protection principles, the contribution of the essay by M. Bisceglia, A. Bonatti and F. Scott Morton REGULATING PRIVACY POLICIES ON DIGITAL PLATFORMS, Yale University, 2025, available online https:// www.tse-fr.eu/sites/default/files/TSE/documents/sem2026/eco_platforms/ bisceglia.pdf

[70]S.Trozzi, The protection of minors in the prism of the protection of personal data. The age verification systems between personalism and the need to balance between rights, Rivista Italiana di Informatica e diritto n. n. 2/2024, pp. 340 ss.

[71]Project for an age verification solution to protect children online, European Commission https://digital-strategy.ec.europa.eu/en/factpages/blueprint-age-verification-solution-help-protect-minors-online updated on 29 April 2026, accessed on 4/7/2026.

that is fully[72] compatible with the future European Digital Identity Wallet. In compliance with the need to protect privacy, as also reiterated by the European Data Protection Board[73], the objective of age assessment is balanced by the confidentiality requirements provided for by privacy legislation, with a mechanism that manages age certification without further data interconnections.

However, the solution is not defined, since it is a system being tested, based on non-binding acts and therefore not providing for obligations for gaming platforms.

The Critical Role of Big Data: Profiling and Protection of Children's Privacy

This scenario of manipulation and capture of attention is made possible by the increasingly incremental volume of information generated and collected in the context of digital services. Even in the world of gaming, big data represents an exceptional source of information, fuelled by every interaction of players with gaming environments, by the volume and type of microtransactions, by the time spent on them, by gaming preferences and even by emotional reactions, which is constantly tracked.

The value of this data is very high from many points of view, because it allows developers to optimize the user experience, increasing engagement and improving service performance. However, on the other hand, these utilities are associated with a series of effects of a more distinctly commercial nature, such as the enhancement of data collected through profiling mechanisms, also based on artificial intelligence systems.

Since sometimes such processing turns out to be carried out in a manner that is not fully compliant with sector regulations[74], it is advisable to start from the reference for the protection of personal data, the GDPR, which offers natural persons an articulated series of guarantees with regard to the processing of personal data. The implementation of these practices integrate different processing purposes, even pervasive, on the personal data of players. First of all is profiling[75], described as the processing carried out for a more in-depth and systematic analysis of the person to analyse or predict aspects concerning professional performance, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements, at the basis of these project strategies.

[72]European Commission, Recommendation on a European approach to age verification technologies, 29 April 2026, 1035.
[73]EDPB, Statement 1/2025 on Age Assurance, 12/2/2025.
[74]In this regard, see the fine of over half a billion dollars, imposed by the US Federal Trade Commission on Fortnite, one of the most famous video games worldwide. The decision following the ascertainment of violations of the Children's Online Privacy Protection Act (COPPA), of using "dark patterns", to induce millions of players to make involuntary purchases. The company has also been ordered to adopt strict default settings for the privacy of children and adolescents, ensuring that voice and text communications are disabled by default and to clearly present the presence of paid elements. https://www.ftc.gov/news-events/news/press-releases/2022/12/fortnite-video-game-maker-epic-games-pay-more-half-billion-dollars-over-ftc-allegations
[75]art.4.4, profiling' means any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements;

The GDPR prescribes particular obligations in the case of the processing of personal data, governed by Article 5, among these mainly those of transparency and lawfulness, requiring the preparation of adequate information on the processing of personal data, the provision of the legal basis of consent[76] and the collection of the related expression of will.

In the case of minors, in addition to these provisions, further precautions are envisaged, due to the condition of particular fragility and immaturity of these subjects, who deserve specific protection due to their vulnerability[77]. In this regard, it is useful to recall the cautions that have always been affirmed by the privacy authorities, both national and European, which affirm and call for increasing protection for minors who move in increasingly dangerous online environments, given the presence of dark patterns[78] and profiling, especially algorithmic.

Among the regulatory provisions, it is mentioned that Article 8 establishes strict conditions for the consent of minors in relation to information society services, requiring the authorization or consent of the holders of parental responsibility for minors under the age of 16, except for different limits that may be identified by the Member States, in any case not less than 13[79].

Concluding Remarks: Towards a New Regulatory Balance?

From the reconstruction just outlined, a regulatory framework of enormous opportunity emerges, in terms of technological evolution, skills and business. At this point, it is necessary to return to the question that guided this contribution, to verify whether the European regulatory framework is actually suitable for protecting minors in online gaming or whether there is still a need for further ad hoc intervention.

The lack of specific regulation for the video game sector has not led to a total absence of protection for users, by virtue of the current regulatory framework on consumer protection. However, the rapid development and variability of the technological context

[76]In this regard, compare the general principles on the processing of personal data referred to in art. 5 GDPR, precisely that of lawfulness, art. 6, par. 1 lit. a) GDPR for the legal basis of consent and art. 7 GDPR on the conditions of validity of consent.

[77]Recital 38 GDPR: Children merit specific protection with regard to their personal data, as they may be less aware of the risks, consequences and safeguards concerned and their rights in relation to the processing of personal data. Such specific protection should, in particular, apply to the use of personal data of children for the purposes of marketing or creating personality or user profiles and the collection of personal data with regard to children when using services offered directly to a child. The consent of the holder of parental responsibility should not be necessary in the context of preventive or counselling services offered directly to a child.

[78]See also in this regard the EDPB Guidelines no. 3/2022, Deceptive design models in the interfaces of social media platforms: how to recognize and avoid them, version 2.0, adopted on 14 February 2023. E. Pelino, The interaction between DSA and GDPR, in Digital Services Act and Digital Markets Act Definitions and first application of the new European regulations, edited by L. Bolognini E. Pelino M. Scialdone, 2023, Giuffrè Milano,

[79]See, for example, the Italian legal system which identified, in art. 8 of Legislative Decree 196/2003, the limit of 14 years for the expression of the so-called digital consent.

bring out its limits due to the very high level of risks that revolve around this world[80]and the regulatory misalignments deriving from the stratifications that have occurred over time. In this sense, the concerns expressed by the European Parliament[81] regarding the consequences of a system that is not fully supervised appear to be shared.

A first problem derives from excessive regulatory verticalizations, as in the case of the DSA, especially with respect to the applicability of certain provisions to specific entities, when they should be provided for a greater panorama of operators. Other regulations do not offer a sufficiently supervised protection framework, if the AI ACT is more of a product regulation and is not objectively oriented towards the protection of rights, the GDPR and consumer legislation are not in step with the new trends of the technological context. With specific regard to a high number of Internet users such as minors - and in general vulnerable subjects - it is highlighted that consumer legislation has a particularistic view of vulnerability, considered a mere exception as opposed to the "average consumer".[82] This creates a protection gap because the effects of vulnerability, such as the delicacy of the exposure of certain traps such as dark patterns, affect all categories of users indifferently. The demonstration of this shortcoming is given by the fact that the rulings of the different authorities continue to affect the same issues.

With regard to the aspects of transparency and the need for awareness of the choices made by the user provided for by the GDPR, also present in consumer legislation, there is the doubt, reasonably expressed in doctrine[83], that these obligations, rather than in support of the rights of the data subjects, operate mostly retroactively in the context of the sanctions issued by the supervisory authority.

Users must be able to act safely within the digital context, with awareness and an adequate level of training. In this sense, greater responsibility is needed for all those involved, starting with parents and educators. However, the increasingly evident difficulty of keeping up with the complexity of these ecosystems cannot be ignored. It cannot be denied, in fact, that the task entrusted to these figures is becoming increasingly complicated and unmanageable, making a general delegation on the supervision of these risks unrealistic[84]. Moreover, entrusting this important mission to families risks turning into an alibi for the industry: true protection is achieved only when the project responsibility is assumed upstream by suppliers, freeing the 'small domestic legislators' from a technically unsustainable supervisory burden against intrinsically manipulative designs and objectively unsustainable technological rhythms.

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[80]The data of the latest Eubarometer (2026/6) show https://europa.eu/eurobarometer/surveys/detail/3677 that Europeans are very concerned about the risks of the online environment for children and that targeted intervention is needed.

[81]CNF. The aforementioned report of the European Parliament

[82]H. Can Aksoy,Empowering the Vulnerable in the European Union: Collective Redress Against Digital Exploitation, in Remedies to Digital Vulnerability in European Private Law, C. Crea and M. Infantino (eds.) (pp.125 e ss.) , 2025, https://doi.org/10.1007/978-3-032-19720-7_7

[83]H. Can Aksoy,Empowering the Vulnerable in the European Union: Collective Redress Against Digital Exploitation, in Remedies to Digital Vulnerability in European Private Law, C. Crea and M. Infantino (eds.), 2025, https://doi.org/10.1007/978-3-032-19720-7_7 pg.130

[84]De Leo, E. M. (2025). Video games, security and responsibility: from the myth of the "positive and safe" environment to regulatory governance. Law Market Technology.

While digital awareness, training, and literacy are very useful tools for proper interaction with digital environments, they cannot compensate for the asymmetry of power against algorithms designed to maximize engagement and contractual *revenue*.

To fill these gaps, the way forward is to find a regulation that fills these gaps and knows how to accompany the Union towards the new challenges it is planning and which will present increasingly complex technological challenges.

It is in this context that the process of adopting a new legislative proposal—the Digital Fairness Act (DFA)—is taking place; expected by the end of 2026, it is presented by the European Commission as: "The legislative initiative is expected to tackle several problems consumers face online such as dark patterns, marketing by social media influencers, the addictive design of digital products and unfair personalisation practices, especially where consumer vulnerabilities are exploited for commercial purposes. The Digital Fairness Act will also aim to streamline obligations for businesses, notably by reviewing certain consumer information requirements in certain types of contracts."[85]

Specifically, as emerged during the preliminary consultation, the proposal aims to fill gaps and areas of legal uncertainty, acting in full complementarity with the existing legislation already mentioned. The aim is to expand the margins of protection that are currently missing, such as by generalizing the prohibition of dark patterns and other manipulative techniques that put pressure on and deceive consumers online.

Although the strongly transversal cut and the intention to integrate concrete protection tools, the DFA is located in a historical moment of deregulation and regulatory simplification, under the impetus of the Digital Omnibus reform package[86], which are in fact streamlining the European regulatory acquis. Therefore, the doubt that legitimately emerges concerns the actual need for a new act or rather the appropriate strengthening of the existing framework, further optimizing the structure, perhaps strengthening the sectoral self-regulation system, such as the PEGI.

Ultimately, the analysis conducted leads us to believe that the current framework offers partial protection of minors in the context of online gaming, which requires dedicated supplementary and regulatory intervention. The approval of a broader and deeper provision such as the one that could come from the DFA appears necessary, provided that it is not reduced to yet another regulatory overlap and that it is able to create a wide-ranging harmonized standard.

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[85] Proposal for a Directive/Regulation of the European Parliament and of the Council on strengthening consumer protection in the digital environment (Digital Fairness act).

[86] European Commission proposed a new Digital Package to simplify EU digital rules and boost innovation. https://digital-strategy.ec.europa.eu/en/faqs/digital-package on 19/11/2025.