Cluj University Journal

Interdisciplinary: Social Sciences and Humanities

no. 3

Volume 4/2026

ISSN 3008-4849

Bogdan Vodă University Press

CLUJ UNIVERSITY JOURNAL. INTERDISCIPLINARY: SOCIAL SCIENCES AND HUMANITIES

*This journal is published **4 times a year** by Bogdan Vodă University of Cluj-Napoca. All articles submitted are double-blind peer-reviewed by the Scientific Committee. The journal is financed by Bogdan Vodă University and coordinated by its Centre of Interdisciplinary Research.*

Bogdan Vodă University Press – *zip code: 400285, Cluj-Napoca, România*
Senior editor: ***Nicolae PĂUN**, Professor Ph.D. Bogdan Vodă University (Vice-Chairman), e-mail: nicolae_paun@ubv.ro; nicolae.paun54@gmail.com*
ISSN 3008-4849 (Print) *ISSN 3008-4822 (Online)* *ISSN-L 3008-4822*
Contact: e-mail:** journal@ubv.ro; **Tel. +40264431628 – int. 201
Indexation: CEEOL, CrossRef, Google Scholar, HeinOnline
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ISSUE NO. 3

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INTRODUCTION

The nine studies assembled in this issue originate in distinct disciplines (law, economics, management, physical education, European studies, and the social sciences), yet they converge on a shared concern: the interplay between contemporary transformations, technological, geopolitical, economic, and cultural, and the human and institutional structures that must absorb them. Rather than treating these forces as autonomous, the contributions gathered here examine the conditions under which change becomes a source of progress rather than an additional layer of fragility.

Three studies engage artificial intelligence directly. Vlad Dan Valerius opens the issue with a systematic review of AI-assisted decision-making, proposing an Integrated Governance Framework (AIGF) built on six interconnected dimensions and arguing that algorithmic augmentation should complement, not replace, the human decision-maker. The same author returns with a model of organizational resilience, tested comparatively on the public administration of Bihor County and the university environment of Cluj-Napoca, which holds that technology yields resilience only where organizational learning, quality management, and committed leadership operate together. Between them, Adrian Sorin Marian analyzes how smartphones, social networks, and AI simultaneously affect the family, reading, and education, introducing the "snowball" mechanism through which such transformations sustain themselves, and separating, with methodological care, documented evidence from plausible speculation.

The legal challenges of financial digitalization occupy Ion Tudor Felezeu's study on cryptocurrency, insolvency, and economic crime, which joins comparative analysis to insolvency practice in order to identify the current normative vacuum in Romanian legislation and to formulate concrete *lege ferenda* proposals. The interdisciplinary method continues in the same author's examination of human capital migration from Eastern Europe, which dismantles the reductionist hypothesis that wage differentials alone explain the departure of qualified professionals and integrates legal, economic, and psychological determinants.

A further study extends the analysis from the domestic to the international regulatory order. Dănuț-Andrei Sopon examines the European dimension of aviation security through three defining episodes (the contested airspace of Crimea after 2014, the downing of flight MH17 over eastern Ukraine and the systemic disruption produced by the 2022 invasion, and the shoot-down of flight PS752 near Tehran). Drawing on the frameworks of ICAO, EASA, the FAA, and successive European Union regulations, the author argues that airspace in conflict zones must be understood as vulnerable infrastructure at the intersection of safety, security, international law, and geopolitics, where the aviation decision must be preventive, documented, and internationally coordinated.

Two studies address sport as a social and managerial phenomenon. Ovidiu Ciprian Bârluțiu offers a conceptual reading of physical education as a factor in forming prosocial behaviors and community safety, weighing the documented benefits of organized sport against the risks it

generates when poorly managed. Horațiu Bogdan Popa examines quality management in sports and leisure services, recovering the Romanian roots of the discipline (Joseph Juran, born in Brăila in 1904) and translating its classical principles into concrete practice on ice rinks and ski slopes.

Culture receives its place in Adrian Sorin Marian's study of the Transylvania International Film Festival, which reads a cultural event through the constitutional right to culture and the "Law and Film" research direction, showing how cinema can serve as an instrument of informal legal education.

Two features unite the issue. The first is a consistent anchoring in verifiable experience, whether regional (Cluj-Napoca, Oradea, Bihor, and Maramureș) or international (the aviation cases of Crimea, Ukraine, and Iran), which grounds general debate in documented reality. The second is a recurring conviction that runs from AI governance to airspace management, from quality systems to prevention in sport: the value of any instrument, technological, regulatory, or institutional, depends on the quality of the human judgment that governs it, and sound governance is anticipatory rather than merely reactive. In keeping with the interdisciplinary vocation of this journal, and with contributors drawn from several Cluj universities, the studies collected here are offered not as settled conclusions, but as an invitation to sustained dialogue across the boundaries that ordinarily separate our fields.

Editorial Board

ARTIFICIAL INTELLIGENCE AND HUMAN DECISION-MAKING: A MULTIDISCIPLINARY ANALYSIS OF OPPORTUNITIES, RISKS AND FUTURE GOVERNANCE

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ABSTRACT

This paper provides an integrated multidisciplinary analysis of the impact of artificial intelligence (AI) on human decision-making. The argument is supported by examples from the Romanian regional ecosystem (e.g., the investment in the Artificial Intelligence Research Institute - AIRi in Cluj-Napoca and the Smart City Strategy in Oradea), illustrating the disparities in adoption and institutional capacity. The research adopts the methodology of systematic literature review (according to the PRISMA guideline) and analyzes the transition from classical decision theories (based on bounded rationality and human cognitive errors) to hybrid human-machine decision-making models. The paper assesses the major opportunities of algorithmic augmentation (accuracy, speed, predictive capacity, personalization) in parallel with the associated systemic, ethical and legal risks (algorithmic bias, opacity of "black box" models, dilution of legal liability, data opacity and cognitive dependence). From a multidisciplinary perspective – legal, economic, managerial, psychological, sociological and sports sciences – it is demonstrated that AI should not replace the human decision-maker, but complement him in a rigorous governance framework. As an original contribution, the author proposes the Integrated Governance Model of AI-Assisted Decision (AIGF), structured on six interconnected pillars, and formulates concrete public policy recommendations for governments, universities, the private sector and the judiciary.

KEYWORDS: *Artificial Intelligence, Decision Making, Human Decision, Governance, Ethics, Algorithmic Decision, Trust, Public Administration, Law, Leadership, Behavior.*

J.E.L. Classifications: L86, O33, D81, D 83, D91, H83, K24, Z13

1. INTRODUCTION

1.1. Artificial Intelligence as a New Decision-Making Environment

The contemporary decision-maker no longer acts in isolation, relying exclusively on intuition or manual data analysis. The evolution of IT brings to mind the words of the columnist "It is not the

times that are beneath man, but the poor man beneath the times". Machine learning algorithms, large-scale linguistic models and Big Data analysis systems have become a component part of any relevant institutional choice.

Two regional indicators confirm the pace of this transformation.

In Cluj-Napoca, the Technical University is building, through an investment of over 105 million lei supported by its own revenues, the Artificial Intelligence Research Institute (AIRi) — the first research center built from scratch in post-December Romania, integrated into the Romanian Artificial Intelligence Hub (HRIA) and scheduled for inauguration in spring 2026.

In Oradea, the City Hall launched in September 2025 the consultations for the city's Smart City Strategy, financed by a European grant of approximately 104,770 euros through the Digital Europe and PoCIDIF programs, with the declared objective of integrating "the advantages of the technological leap, including in the AI area" into local public services — completing the already functional digital.oradea.ro platform, developed to simplify administrative procedures.

The difference in scale between the two projects — a national research institute and an incipient municipal strategy — illustrates exactly the tension that we will discuss in section 7.2: AI adoption is not progressing uniformly, but on uneven territorial layers.

The OECD, UNESCO, and World Economic Forum reports, along with the analyses published in the Stanford AI Index, converge towards the same finding: modern institutional governance can no longer be thought of independently of the analytical capabilities of artificial intelligence.

1.2. Research problem

The specialized literature remains fragmented by field. Lawyers analyze the impact of AI on law, doctors — the applicability of algorithms in diagnosis, and management specialists — the optimization of economic decisions. Rarely do these perspectives converge in a single model, capable of reconciling the legal, economic, psychological, and socio-organizational dimensions of AI-assisted decision-making. The gap is not just theoretical — it is felt practically, when a local institution must simultaneously decide on the legal compliance, implementation costs and social acceptance of an automated system.

1.3. Objectives

In the paper, we dare to propose four specific objectives:

1. identifying and evaluating the analytical opportunities offered by AI;
2. mapping the systemic and ethical risks associated with algorithmic implementation;

3. comparing classical decision theories with emerging hybrid decision-making models;

4. proposing a governance framework adapted to public and private institutions.

1.4. The didactic principle "a good question provokes a good answer" led us to pay attention to research questions (Research Question RQ).

RQ1: How does AI modify the fundamental mechanisms of the human decision-making process?

RQ2: What are the strategic opportunities emerging from the integration of AI systems?

RQ3: What systemic, ethical, and legal risks affect the quality of technology-assisted decision-making?

RQ4: What governance models can balance innovation with human control?

RQ5: What are the main research gaps in the current multidisciplinary literature?

2. METHODOLOGY

The research adopts a systematic literature review, structured according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines.

2.1. Database selection

The query was conducted in Scopus, Web of Science, IEEE Xplore, SpringerLink, ScienceDirect and Google Scholar.

2.2. Inclusion criteria

Works published between 2018 and 2026, of peer-reviewed type or monographs, indexed in Scopus/WoS, written in English were retained.

2.3. Exclusion criteria

Conference abstracts, duplicate articles, editorial materials, grey literature and strictly technical studies, without a human or institutional dimension, were eliminated.

3. HUMAN DECISION BEFORE ARTIFICIAL INTELLIGENCE

3.1. Classical Decision Theories

Herbert Simon, Daniel Kahneman, Amos Tversky, James March, and Henry Mintzberg have demonstrated, each from their own perspective, that the classical decision-making process depends on the limited capacity of the human brain to process information.

3.2. Perfect Rationality versus Bounded Rationality

Classical economic models assumed a perfectly rational decision-maker — Homo Economicus. Simon dismantled this fiction through the concept of bounded rationality: the human decision-maker cannot access all relevant information and cannot calculate all possible consequences, so he chooses the "satisfactory" solution, not the optimal one.

In accordance with recent analyses of risk governance in organizations (Marian, 2026a), the structural limits of information processing make institutional decision-making vulnerable precisely under conditions of high uncertainty — precisely the situations in which AI systems are introduced today with the highest expectations.

3.3. Systematic Cognitive Errors

Building on the foundation laid by Kahneman and Tversky, the psychological literature has mapped a series of recurring judgmental distortions:

• confirmation bias — the selective search for information that validates a preexisting belief;
• availability bias — the overvaluation of recent or easily recalled events;
• anchoring — excessive reliance on the first information received;
• overconfidence — overestimating the accuracy of one's own predictions;
• loss aversion — the emotional disproportion between the fear of losing and the desire to win.

4. ARTIFICIAL INTELLIGENCE AS A DECISION SUPPORT SYSTEM

4.1. The Evolution of AI

We could recall the history, the evolution, the path even if they are known, for the clarity of the argument: expert systems based on rigid rules from the 1980s, followed by machine learning algorithms capable of recognizing patterns in data, then deep neural networks and, currently, generative artificial intelligence and large-scale linguistic models — capable of synthesizing large volumes of text and interacting in natural language with the decision-maker.

4.2. Decision-making augmented by AI

The integration of AI does not eliminate the human component from the decision, but rather amplifies it. Four parameters change visibly: processing speed decreases from days to milliseconds; accuracy increases by reducing calculation errors; analytical capacity extends to

volumes of data impossible to process manually; and forecasting gains in accuracy through predictive models.

4.3. Application areas

The effect of AI is felt in most institutional sectors, as summarized in: Table 1.

Table 1. Application areas of AI in decision-making support

Area Decision-making role of AI Application examples

Law / Justice Case law analysis, judicial predictability Recidivism risk assessment, preliminary drafting of documents

Management / Business Resource optimization, financial analysis Capital allocation, credit scoring, recruitment

Medicine / Health Precision diagnosis Personalized therapeutic decisions, imaging analysis

Public administration Service automation, fraud detection Social protection, tax optimization and audit

Finance / Banking Algorithmic trading, scoring Portfolio management, money laundering detection

Sport Injury prevention, tactics Physical load monitoring, talent identification

5. OPPORTUNITIES CREATED BY AI

5.1. Better decisions

Partial neutralization of human cognitive errors — fatigue, impulsivity, emotional state of the moment — allows decisions to be more firmly anchored in empirical evidence.

5.2. Faster decisions

Real-time analytics gives decision-makers in management, healthcare, or administration the ability to react almost instantly to crises.

5.3. Predictive capacity

Predictive modeling moves management from reactive to proactive. Some authors emphasize, in a note that directly applies to the AI context, that the exploitation of an algorithmic prediction requires a rigorous risk governance framework — otherwise, prediction remains a technical exercise without real institutional consequence (Marian (2026a).

5.4. Personalization

AI allows for large-scale personalization: genetically calibrated treatments in medicine, learning paths adapted to the pace of each student, public services individualized to the citizen's profile.

5.5. Organizational performance

At the micro and macroeconomic level, AI streamlines internal processes and supports product innovation.

6. RISKS OF AI-BASED DECISION-MAKING

6.1. Algorithmic Bias

Algorithms learn from historical data that already carries structural discrimination. When training data is flawed, AI amplifies — not corrects — racial, gender, or socioeconomic discrimination in hiring, lending, or bail decisions.

6.2. Lack of Transparency

Many deep learning models function as a “black box”: reconstructing the logic that led to a conclusion is often impossible, which affects the right to explanation and undermines institutional trust.

6.3. Accountability

When an AI system generates an erroneous decision, the question of responsibility arises: the programmer, the developer company, the user institution, or the human decision-maker who validated the recommendation?

6.4. Data Protection

The massive data collection required to train algorithms often conflicts with regulations such as GDPR, raising risks of unauthorized surveillance.

6.5. Overreliance (automation bias)

Decision-makers tend to uncritically accept algorithm recommendations. In the long term, this phenomenon leads to cognitive disqualification (deskilling) and the erosion of critical thinking.

6.6. Ethical challenges

Human dignity, fairness, and individual autonomy can be undermined when major decisions regarding a person’s life or freedom are delegated to automated systems.

7. MULTIDISCIPLINARY PERSPECTIVES

7.1. The legal perspective

The main legal challenge remains the establishment of the civil and criminal liability regime. The European Regulation on Artificial Intelligence (EU AI Act) takes a risk-level approach, with strict requirements for systems intended for justice, public order or credit assessment. In an analysis dedicated to budgetary sustainability and the institutional foundations of public financial law, it is shown that the function of regulation is not to block innovation, but to draw clear limits to it — a principle equally valid for AI governance (Marian, 2026b).

7.2. The economic perspective

Economists are tracking the impact of AI on productivity and labor market dynamics. The economic benefits are real, but so is the risk of labor displacement and widening gaps between advanced and developing economies. The contrast already described in section 1.1 — a research institute of 105 million lei in Cluj-Napoca, versus a municipal strategy of around 105,000 euros in Oradea — is not a simple budget difference, but an indicator of the institutional capacity gap between a consolidated university hub and a medium-sized urban center, a gap that the National Strategy for Artificial Intelligence 2024-2027 explicitly recognizes as a risk of regional fragmentation of technological adoption. The asymmetry of scale and speed observed between university centers and local administrations (as illustrated by the contrast between the AIRi Cluj project and the Oradea Smart City Strategy) does not represent a simple budgetary difference, but signals the structural risk of regional fragmentation of AI governance.

While large technology hubs develop their own analytical capabilities and advanced decision support models, mid-sized administrations remain dependent on external solutions or gradual adoption processes. Without an integrated national governance framework (such as the AIGF model proposed in this paper), these gaps in institutional capacity can deepen the rift between innovative urban centers and resource-constrained administrations, equally affecting the equity of public services and the uniform application of automated decision regulations.

7.3. The managerial perspective

AI is changing the role of the organizational leader: he no longer just distributes tasks, but orchestrates human-machine collaboration, integrating organizational learning with strategic change management.

7.4. The psychological perspective

Psychology investigates trust in technology, cognitive load, and acceptance of hybrid systems. People oscillate between irrational fear of the machine and blind faith in the algorithm—both attitudes distort the final decision.

7.5. The sociological perspective

The expansion of AI influences social cohesion. Disparities in access to technology generate new forms of digital inequality, and unchecked automation can erode the legitimacy of public institutions.

7.6. Sports Sciences

In sports science, AI is reconfiguring tactical modeling and talent identification. The final decision, in moments of extreme pressure, however, remains dependent on psychological factors and team cohesion. based on the Belbin model applied to group dynamics, it is shown that organizational performance results from the balance between human resilience and analytical tools—not from the substitution of one for the other (Marian, 2022, 2023).

8. TOWARDS A GOVERNANCE FRAMEWORK IN PERSPECTIVE

8.1. Existing governance models

OECD guidelines, UNESCO recommendations, the EU AI Act, the NIST AI Risk Management framework and ISO standards provide valuable principles, but often remain general or regionally fragmented.

8.2. Proposed Integrated Governance Framework

As an original contribution of the paper, we propose the AI Governance Framework (AIGF), structured on six interconnected dimensions, applicable incrementally (each new step is added on top of the old one, improving it, without spoiling what was done before):

AI-Assisted Decision Governance Framework (AIGF)

No. crt.	Governance Dimension	Description and Key Components	Objective / Impact in the Decision-Making Process
1	**Legal compliance**	Strict and continuous alignment with national, European (e.g. EU AI Act) and international regulations in force.	Preventing legal non-compliance and positioning the system at the appropriate level of legal risk.
2	**Ethical principles**	Respect for the principles of equity, non-discrimination, inclusion and protection of fundamental human rights.	Mitigating the takeover/amplification of historical discrimination and protecting human dignity.
3	**Transparency and Explainability (XAI)**	Using explainable algorithms (Explainable AI) and providing the right to explanation.	Eliminating the "black box" effect and strengthening institutional trust.
4	**Human supervision**	Mandatory application of the Human-in-the-Loop (HITL) principle in all administrative, medical or judicial decisions with major impact.	Maintaining human control and critical thinking over automated decisions.
5	**Institutional responsibility**	Clear and unambiguous delimitation of the chain of legal responsibility	Eliminating uncertainty regarding civil or criminal

No. crt.	Governance Dimension	Description and Key Components	Objective / Impact in the Decision-Making Process
		(developer, supplier, user institution, human decision-maker).	liability in the event of algorithmic errors.
6	**Continuous learning and auditing**	Post-implementation monitoring of algorithm performance, periodic independent auditing and model retraining.	Preventing data degradation (data drift) and adapting the system to environmental dynamics.

8.3. Public policy recommendations

For governments and administrations — establishing national bodies to audit public sector algorithms. For universities — interdisciplinary programs in ethics and technological governance; such a program, built on common modules in law, management and organizational psychology, could be piloted at the level of a single faculty before regional expansion, from Cluj-Napoca to smaller university centers such as Oradea. For companies — internal ethics committees, active before the market launch of any automated decision. For justice — guaranteeing the right to human review of any automated administrative or judicial decision. It is worth pointing out that the information about the AIRi Institute (UTCN, Cluj-Napoca) comes from economic press sources (Transilvania Business, October 2025) and can be additionally verified on the UTCN website. The information about the Oradea Smart City Strategy comes from Transilvania Business (September 2025) and from the press releases of the Oradea City Hall.

9. FUTURE RESEARCH AREAS

There are areas that invite, in the future, systematic and in-depth research:

• AI and leadership — there is a lack of empirical studies on how AI modifies moral authority and leadership style.

• AI in public order — there are no comparative models on the efficiency and ethical impact of police decisions based on predictive algorithms.

• AI and sports integrity — there is a lack of a dedicated legal framework for predictive analytics used in preventing match-fixing.

• AI and citizen trust — we still know little about the psychological mechanisms by which citizens accept or reject automated administrative decisions.

CONCLUSIONS

Artificial intelligence does not replace the human decision-maker; it irreversibly transforms the nature and dynamics of his decision. The major benefits — precision, speed, predictive capacity — are only realized through careful calibration of input data, coupled with the maintenance of human critical thinking.

The risks—algorithmic bias, opacity, uncertainty of accountability, overreliance—remain real threats to human rights and institutional stability. Adopting a six-tier governance framework, such as the one proposed here, is the condition that can transform the transition to hybrid human-machine decision-making into an engine of institutional progress, rather than an additional source of fragility.

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CRYPTOCURRENCY, INSOLVENCY AND ECONOMIC CRIME: LEGAL CHALLENGES OF FINANCIAL DIGITALIZATION

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ABSTRACT

The digitalization of financial instruments has produced a visible crack in the classical architecture of patrimonial, fiscal and criminal law. This study analyzes, from a dual perspective — theoretical and insolvency practitioner — the way in which virtual assets complicate the identification and preservation of the creditor's estate, open doors to tax evasion and money laundering, and put pressure on classical investigative tools. The paper proposes, based on comparative analysis and practical experience gained in insolvency proceedings, several lege ferenda solutions intended to cover the current normative vacuum in Romanian legislation.

KEYWORDS: *cryptocurrencies; insolvency; fraudulent bankruptcy; money laundering; contributory capacity; financial law.*

J.E.L. Classifications: E42, G28, G38, K14, K22, K42.

I. INTRODUCTION

I have practiced insolvency law long enough to know that each generation of debtors finds a new tool through which the asset becomes, suddenly and conveniently, harder to find. Twenty years ago, it was about offshore accounts and shell companies registered across borders. Today, the discussion has moved almost entirely to the field of digital assets. It is no exaggeration to say that cryptocurrency trading, financial decentralization and blockchain technology are simultaneously putting pressure on three levels of law that, until recently, operated relatively independently of each other: classical property law, tax law and economic criminal law.

The research problem we propose is essentially one of procedure and probation: how does the insolvency practitioner identify, preserve and execute a trust when part of it can be moved, in a few seconds and without a visible trace, to a digital wallet that no one but the debtor can access?

And, correlatively, how does the criminal prosecution system respond when the same instruments become vehicles for money laundering and fraudulent bankruptcy?

Our starting hypothesis is that the answer cannot come from a single branch of law.

Functional solutions lie at the intersection of insolvency law, financial-tax law and criminal law, and the methodology chosen in this study is comparative and analytical-legal, supported by observations drawn from current professional practice.

II. RISKS ASSOCIATED WITH CRYPTO-ASSETS TRADING AND IMPLICATIONS ON ASSETS STABILITY

2.1. Volatility and opacity of cryptocurrencies

Blockchain technology solves a technical problem — the decentralization of the register — but at the same time opens a dilemma of legal qualification that the Romanian legislator has not yet satisfactorily resolved. Are cryptocurrencies securities? Intangible goods subject to the general regime of movable goods? Or does it represent a hybrid category, a kind of sui-generis financial means that does not fit comfortably into any of the existing conceptual boxes? Practice shows that the answer often depends on the court and the complexity of the case, which is obviously not a solution — it's just a postponement.

2.2. Prevention and management of financial risk

The opacity and extreme volatility of the virtual asset market require a reassessment of the classic notion of risk in commercial activity. As Adrian Sorin Marian shows in the study dedicated to the risks and opportunities in cryptocurrency trading **Adrian Sorin Marian,2025)**, uncontrolled exposure to digital assets, in the absence of a rigorous financial risk management strategy, is one of the primary triggering factors of the patrimonial imbalance of commercial companies, opening the way to insolvency. The observation is not purely theoretical: I have encountered, in the practice of judicial administrator, situations where a statutory administrator placed part of the company's liquidity in volatile assets, without any kind of hedging or exposure limitation policy, and the collapse of the value of these assets was the last straw that overturned an already fragile financial balance.

I would go even further and say that the risk lies not only in volatility, but in the combination of volatility and lack of transparency. A listed stock loses its value in plain sight; a crypto wallet can lose value—or be emptied—without anyone outside the borrower even knowing it exists.

2.3. The Dilemma of Legal Qualification: Cryptocurrency as an Object of Performance

The question "what is a cryptocurrency, in fact, from a legal point of view" is not a gratuitous academic exercise — on its answer depends the validity of countless legal acts concluded every day. Cristian Paziuc, analyzing the validity of legal acts that have as their object cryptocurrency (**Cristian Paziuc,, 2022)**, shows that the virtual currency can be regarded as the object of a contractual provision only if a certain flexibility is accepted compared to the classic categories of civil law, and the commutative or random character of the contract depends, to a large extent, on the concrete way in which the parties understood to configure the risk. From an insolvency perspective, the observation has a direct consequence: if even the legal nature of the asset is not fully clarified, the regime of its enforcement is even less clear—which obviously brings us back to the issue we discuss in the next section.

III. INSOLVENCY IN THE DIGITAL AGE: IDENTIFICATION, TRACKING AND ENFORCEMENT OF HIDDEN ASSETS

3.1. Procedural issues

Law no. 85/2014 was conceived in a world where the debtor's asset usually had a tangible form or, at least, an institutional trace — a bank account, a property, a share registered with the Trade Register.

Private keys and cold wallets do not follow any of these logics.

The insolvency practitioner currently has no direct legal instrument through which to compel the debtor to hand over a private key, and the forced execution of a digital asset remains, to a large extent, theoretical as long as the debtor refuses to cooperate.

As far as I can tell, although cold wallets or non-custodial wallets are almost impossible to execute without a key, in practice, debtors frequently use centralized platforms (Binance, Kraken, Crypto.com, etc.) for conversion into fiat currency (RON/EUR). Pointing out the possibility of issuing garnishment/seizure addresses directly to authorized platforms as CASP/service providers would add practical value.

3.2. Detriment to creditors and tax evasion

Voluntary asset reduction by transferring capital to anonymous cryptographic wallets not only affects the interests of unsecured creditors, but directly undermines the foundation of tax law. Analyzing the contributory capacity in contemporary tax systems (**Adrian Sorin Marian, 2021)**, Adrian Sorin Marian emphasizes that the fair settlement of tax burdens depends on the transparency of the income and real assets of the legal subject; therefore, the masking of taxable and creditable assets through undisclosed virtual assets represents a serious distortion of the contributory capacity and, in our opinion, a form of fraud against the public economic order, not just a simple accounting irregularity.

I do not think it is an exaggeration to say that, in the absence of legislative intervention, any discussion about fiscal equity remains, to a large extent, theoretical — because the rule applies only to those who have not yet figured out how to circumvent it.

3.3. Fraudulent bankruptcy and the specificity of digital assets

The connection between the concealment of digital assets and the crime of fraudulent bankruptcy is not accidental, but belongs to the very structure of this crime. Rareș Andrei Furtună, in a recent study dedicated to this fact (**Rareș Andrei Furtună,, 2026)**, explains that fraudulent bankruptcy implies, unlike simple bankruptcy, deliberate conduct on the part of the debtor — the fraudulent concealment, destruction or alienation of assets, coupled with bad faith and the intention to prevent the satisfaction of claims. These elements, originally conceived for paper accounting records and tangible assets, translate almost perfectly to the field of digital assets: hiding a private key is functionally equivalent to hiding an accounting ledger, only it is infinitely more difficult to prove and, above all, infinitely more difficult to physically search.

IV. ECONOMIC CRIME AND THE INTERSECTION OF SPECULATIVE MARKETS WITH ORGANIZED CRIME

4.1. Money laundering techniques and fraudulent bankruptcy

Crypto mixers, privacy coins and the speed of cross-border transfers together form a combination that is difficult to counter with classic criminal prosecution tools. A transfer that, in the traditional banking system, would leave a clear audit trail, can, in the crypto environment, be fragmented, anonymized and redistributed in a matter of minutes.

The mechanism of money laundering through cryptocurrencies does not remain isolated in the virtual sphere, but quickly spills over into the real economy. Extrapolating Adrian Sorin Marian's analysis of the vulnerability of economic markets — the real estate market in particular — to the risks posed by organized crime (**Adrian Marian, 2026)**, we observe a symbiotic phenomenon: the profits obtained from digital economic crimes are injected into tangible assets, distorting market relations and making it more difficult for criminal prosecution bodies to recover the damage. An apartment bought in cash, at a price slightly above market, paid from an account opened three months ago, should, in theory, raise an alarm signal — and yet, how often does this actually happen?

4.3. An example from the region: the investigation in Bistrița-Năsăud, Cluj and Maramureș

We do not have to look very far to see examples of these mechanisms working in practice. The Romanian Police reported, during 2026, the implementation of twelve simultaneous house searches in the counties of Bistrița-Năsăud, Cluj and Maramureș (**Press release, 2026**), in a case under the supervision of the Prosecutor's Office attached to the Bistrița-Năsăud Court, targeting computer crimes and money laundering in connection with a cryptocurrency fraud whose damage was estimated at approximately 700,000 dollars.

The case is relevant precisely because it illustrates, on a local scale, exactly the pattern described above: the criminal network was not limited to a single jurisdiction, but spread across three neighboring counties, and the pursuit of the damage required the coordination of several territorial police structures.

For an insolvency practitioner from the Cluj-Maramureș area, such a file is not a press curiosity, but a very concrete signal: hidden digital assets do not usually remain isolated in a single county, and any legislative reform must be thought out from the very beginning with a logic of interjurisdictional cooperation, not just local.

V. DIGITALIZATION OF INVESTIGATIVE TOOLS AND LEGAL REFORM

5.1. Institutional response

Insolvency practitioners, police officers and prosecutors today need a qualification that classic legal training programs do not offer: forensic blockchain. It is not enough to know what insolvency is or what a fraudulent bankruptcy crime is; you also need to know how to read a distributed ledger,

how to track a transaction through a mixer and where a chain of anonymized transfers actually ends.

5.2. Digitalization, prevention and combating corruption

Fighting digital economic crime cannot be done with analog tools. As Adrian Sorin Marian notes in his paper on the relationship between digitalization and corruption phenomena (**Adrian Sorin Marian, 2026)**, the transition to the digital environment is a double-edged sword: on the one hand, it creates new opportunities for opaque economic crime, and on the other hand, it offers judicial authorities advanced tools for traceability and transparency, provided that there is adequate specialized training. I would add, from experience, that the lack of this training is, at the moment, the main obstacle — legislation can be completed relatively quickly, but training a prosecutor or a forensic blockchain practitioner takes years, not months.

5.3. The dimension of individual rights: the investor-consumer, the great forgotten one

The discussion above naturally focuses on creditors, the state and the criminal prosecution bodies, but there is also a fourth party, often forgotten: the individual investor, who is neither an institutional creditor nor a criminal, but simply a person who has placed his savings in an asset that he does not fully understand.

Nicolae Voiculescu and Maria-Beatrice Berna draw attention, in a study dedicated to cryptocurrencies and human rights (**Nicolae Voiculescu, Maria-Beatrice Berna, 2024)**, that the impact of virtual currencies on individuals has, so far, been treated fragmentarily and marginally in relation to the field of human rights, without a systematic and comprehensive analysis.

The observation seems important to me for our discussion as well: any legislative reform focused exclusively on the protection of creditors and the fight against organized crime risks leaving completely uncovered the position of the ordinary investor, who is, many times, the very collateral victim of the practices described in the previous sections.

VI. AN INSTITUTIONAL PROPOSAL: THE STUDY OF THIS PROBLEM AT "BOGDAN VODĂ" UNIVERSITY IN CLUJ-NAPOCA

Having arrived here, I think it is natural not to stop only at the level of the diagnosis, but also to say what we propose, as a faculty, to do about this problem — because, otherwise, we risk writing another article that notes a problem without contributing, in the least, to its solution.

At the Faculty of Law of the "Bogdan Vodă" University in Cluj-Napoca, we already have teaching staff with institutional experience that we can capitalize on directly in this regard: participation, as an expert, in the European TRIDENT project, together with the Police University of Rhineland-Palatinate, and the coordination of the Erasmus FAST project, dedicated to digital evaluation tools in professional training in the field of public order. Both projects have demonstrated that teachers from our faculty can manage, on a practical level, specialized training with a digital component for law-related professions — police officers, trainers, practitioners.

Concretely, we propose three directions of action, thought not to remain at the stage of declarative intention:

(i) The introduction, within the disciplines of Financial and Fiscal Law and Banking Law, already taught at the faculty, of a module dedicated to the legal qualification of digital assets and their implications on insolvency and economic criminal law, so that students do not encounter this topic only incidentally, through an optional course, but as a natural part of the basic training;

(ii) The organization, in partnership with the Cluj branch of the National Union of Insolvency Practitioners in Romania (UNPIR) and the Economic Crime Investigation Service of the county police, of applied legal clinic-type seminars, in which students and young practitioners work on real cases — anonymized, of course — similar to the one discussed in section 4.3, with an emphasis on the procedure for identifying and preserving digital assets;

(iii) The establishment, starting from the experience already accumulated in the European projects mentioned above, of an interdisciplinary research core — law, forensics, technology — that will function as a starting point for a future postgraduate specialization in blockchain forensics, open to lawyers, insolvency practitioners, police officers and magistrates from the Cluj-Maramureș region alike.

I do not claim that these three directions solve, by themselves, the legislative vacuum described in this article — the law remains, after all, the prerogative of the legislator. But I sincerely believe that the role of a regional law faculty, such as the one at "Bogdan Vodă" University, is precisely to prepare the people who, in a few years, will apply that law — and, if possible, to contribute, through applied research, to its shaping.

CONCLUSIONS AND PROPOSALS DE LEGE FERENDA

The summary of this study is, in fact, simple: Romanian insolvency law, tax law and economic criminal law currently operate with a clear legislative vacuum regarding digital assets, and this vacuum will not be filled by itself. An interdisciplinary approach is needed, which brings together criminal law, insolvency law and financial-banking law.

We propose, specifically, two directions of legislative intervention:

(i) Supplementing Law no. 85/2014 in the sense of expressly obliging the debtor to hand over to the judicial liquidator or the judicial administrator all private keys and access data to trading platforms (exchanges), under penalty of classifying the act as fraudulent bankruptcy;

We dare to advance the idea, however, derived from experience, that it is possible to propose not only criminal sanctioning the concealment of the private key, but also the application of penalties per day of delay (astreinte) or non-pecuniary coercive measures against the individual debtor/statutory administrator who refuses to hand over the access codes.

(ii) Creating a national registry for the freezing of digital wallets seized in criminal and commercial proceedings, which would allow for a unified and accessible record to all judicial bodies involved.

Without these interventions, we risk that the discussion about fiscal equity and creditor protection, in the digital age, will remain — as I said earlier — a purely theoretical discussion.

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HOW SMARTPHONES, SOCIAL NETWORKS AND ARTIFICIAL INTELLIGENCE RECONFIGURE THE FAMILY, READING AND THE HUMAN MIND - LEGAL ASPECTS

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ABSTRACT

Every time a new communication technology appears, we are scared first and understand only later — as happened with television in 1953, as it is happening now with the smartphone, social networks and artificial intelligence. This article tries to separate, patiently, what is proven from what is just plausible speculation, in the connection between these technologies and three collapses that we are experiencing simultaneously: of the family, of reading and of education. The idea I defend here is that the three are not parallel phenomena, but a single mechanism, which behaves like a "snowball" — just like inflation, which feeds on its own anticipation, neither the distance in a couple, nor the decline of a generation of teachers need a repeated external shock to deepen; they sustain themselves, through thousands of small, seemingly innocent decisions made every day. I review research in psychology, attention economics, and educational sciences, put them alongside Mircea Platon's thesis on systematic deschooling in Romania, and explicitly separate what is empirically supported from what is merely circulated as opinion — so that, in the end, the proposed recommendations are realistic, not just moral.

KEYWORDS: *smartphone, social networks, artificial intelligence, deschooling, technoference, attention economics, deep reading, "snowball" effect.*

J.E.L. Classifications: **D83, D91, I20, L86, O33, Z13**

1. ARGUMENT

In 1953, a Harvard University report, commissioned by the US Congress, warned of an alleged increase in juvenile delinquency caused by television. Romania would receive the same object of fear only three years later, in 1956, when public television began broadcasting. Today we know that that report exaggerated much of what it claimed. But the mechanism it captured — public fear arising in the face of a new communication technology — has been repeated identically with every technological wave since then: radio, television, the internet, and now the smartphone,

social networks and artificial intelligence. The difference, this time, is not one of nature, but of speed and depth.

Television passed through reporters, editors and editors-in-chief — human filters, slow but real. The screen in each of our pockets no longer passes through anyone. It is designed, optimized, and statistically tested for one purpose: to keep us engaged for as long as possible.

I wrote in a previous article about how smartphones, social media, and artificial intelligence seem to be simultaneously eroding three things we thought were solid: the relationship between parents and children, the relationship between husband and wife, and the once-natural habit of reading a book to the end. I won't go back here to the rhetorical questions I asked then—why do children suspect their parents, why do the most educated groups sometimes have the highest divorce rates, why have we come in last place in Europe in reading books?

Instead, I want to go a step further and show something that I think is missing from most writing on this subject: that these three collapses—of family, of reading, of education—are not three parallel phenomena, but one single phenomenon, feeding off of itself, just as inflation feeds off the expectation of inflation.

2. IT'S NOT THE PHONE THAT'S THE PROBLEM, BUT THE ECONOMY THAT DRIVES IT. "TIME IS MONEY" IN A DIGITAL VERSION. ATTENTION TIME!

The most important shift in perspective in recent years in the technology literature is the shift in focus from the object (the phone) to the economic system that governs it—what researchers call the "attention economy."

Human attention span has become a finite resource, sold to advertisers, and apps compete for every second of it. The underlying mechanism—variable reward, the same psychological structure that fuels gambling—has been described by researchers like Nir Eyal and critically analyzed by former industry engineers like Tristan Harris. The outcome of this competition is measurable: For more than two decades, researcher Gloria Mark of the University of California-Irvine has tracked, through direct measurements, how long a person can stay focused on a screen before switching. In 2004, the average was two and a half minutes. Today, it's 47 seconds. This isn't a subjective impression of "this generation"—it's an objectively measured trend that applies to adults, not just teenagers. Consider a mundane scene: a father sits at the table with his four-year-old, and his phone vibrates in his pocket. This is not an emergency from the hospital or a message from the wife —

most often it is a commercial notification, automatically generated by an algorithm that has statistically calculated what time of day that father is most likely to open the app.

The father did not consciously choose to be less present. He simply finds himself in an unequal competition with an industry that invests billions in such mechanisms. It is not a personal weakness, We are not talking about a simple deficit of will. We are competing with platforms that invest fabulously to achieve this result. That is, a rigged game from the start. This reformulation matters for the debate about family: we are not talking about an object that we can ban, but about an industrial system deliberately built to capture time and attention — including time and attention that we would otherwise have given to our partner, children, or a book.

The attention economy does not explain everything. But it introduces a common, recognizable mechanism that amplifies already existing processes. Family, school, and reading have their own economic, cultural, and demographic determinants. We argue only that there is a common mechanism—systematic competition for human attention—that amplifies each of these processes and makes them mutually reinforcing.

3. WHEN THE PHONE BECOME TOO PERMANENT MEMBER OF THE FAMILY

When a parent interrupts their interaction with their child to respond to a notification, researchers Brandon McDaniel and Jenny Radesky, publishing in the journal Child Development, called the phenomenon "technoference" — the interference of devices in the attachment relationship. The child does not experience this as a simple administrative distraction, but, repeatedly, as a form of intermittent emotional unavailability.

Their studies, including longitudinal ones later published in Pediatric Research, show something even more disturbing than a simple correlation: the relationship is bidirectional.

The more behavior problems a child has, the more the parent, stressed, takes refuge in the phone; and the more the parent takes refuge in the phone, the more the child's behavioral problems increase. It's not a single, linear cause, it's exactly what engineers call a positive feedback loop—a circle that tightens on its own without the need for an outside push to sustain it.

Here it is important, for an article that aims to be rigorous, not to oversimplify. Meta-analyses led by researchers such as Candice Odgers and Amy Orben—among the most cited papers in the field—show that the link between screen time and youth mental health problems is real, but of moderate magnitude, and strongly dependent on the type of content, age, and, most importantly,

the quality of the family relationship surrounding technology use. In other words: the correct focus is not "technology is destroying the family", but "the quality of the parent-child relationship filters the impact of technology". It's an essential nuance—and one that actually provides real leeway for parents, rather than a fatality.

As for the couple relationship, the hypothesis that professions with heavy digital exposure—eg, IT people, doctors—would have systematically higher divorce rates because of technology is a claim I've seen often in the opinion press, but which is not, at this point, publicly supported by a solid study of comparable rigor to the ones cited above. We therefore state it as a research hypothesis, not as established fact—and we recommend the same caution to any reader who revisits it.

Rather, the gender literature shows, the divorce rate is positively influenced by the material well-being and implicit financial independence of individuals.

What is instead more clearly documented is the effect of accumulation: each notification we respond to at the table, each scrolling of a stream of content while our partner is speaking, represents a small reallocation of attention, invisible at the time but visible over time as a diffuse sensation of distance. It doesn't necessarily have to be a spectacular cause to erode a relationship—the sum of many such small moments, each taken separately, completely harmless, is enough.

4. THE FAMILY "SNOWBALL": WHY DISTANCE IS SELF-PERFORMING

I want to emphasize here a mechanism that most articles on this subject miss, because they stop at the observation of the effect ("technology is distancing us") without explaining why, once started, the process becomes increasingly difficult to stop.

The clearest comparison comes from economics: inflation is not only an increase in prices, but also — perhaps especially — a self-fulfilling prophecy. When people expect prices to rise next month, they demand higher wages now, merchants raise their prices now, to protect themselves, and the expected inflation becomes real inflation. The mechanism does not need an external shock to permanently fuel it; it feeds on its own anticipation.

Something structurally similar happens in the family. A couple in which one partner increasingly takes refuge in the phone does not get there all at once. The first step is small: an evening where, instead of conversation, each person scrolls through their own content stream. The partner who feels distance has, in theory, two options: to insist on attention, risking conflict, or to retreat into their own screen as a self-protective reaction. The second option is almost always easier in the

short term—and that is precisely why it is chosen more often. But each such choice deepens the habit, normalizes the distance, and makes the next evening of silence seem less serious than the first. The couple does not "decide" at a certain moment to distance themselves; the distance accumulates from thousands of small decisions, each rational in itself, just as no single merchant decides inflation alone, but all together produce it.

And the loop does not stop with the current generation. Children who grow up in a home where technoference is the norm don't just learn that their parents are sometimes distracted—they learn, by example, what a relationship between a couple and a family means.

They will most likely reproduce this exact pattern when they form a family of their own. Not because there is a genetic transmission of distraction, but because the only relational model they have seen up close, day after day, for years, is this one.

The parent's struggle with notification is not a momentary moral failure, but a cognitive asymmetry: on one side of the table is a human brain with a level of will tired after a day's work, and on the other side are supercomputers and hundreds of data engineers optimizing the delivery of dopamine millisecond by millisecond.

And the "Snowball" doesn't melt from one generation to the next—it rolls on, gathering a little more mass with each round. A huge, devastating avalanche that was created by the initial rolling of a lump. Such a conclusion naturally invites a counterargument: if technology can drive people apart, it can also bring them closer. For millions of families separated by migration, video calls and instant messaging have made it possible to maintain connections that, a generation ago, would have inevitably deteriorated. Social networks can facilitate communities of support, and artificial intelligence can personalize learning or provide rapid access to information. These benefits are real and should not be minimized. That is why the question is not whether technology is "good" or "bad", but under what conditions its advantages begin to be outweighed by economic incentives aimed at capturing attention. The argument in this article is not one against technology, but against a model of use that turns human attention into a commodity. From this perspective, the same tool can strengthen or erode relationships, depending on the rules that shape its use.

5. HOW DECLINE IS TRANSMITTED FROM ONE GENERATION TO ANOTHER

Up to this point, we have traced the effects of the attention economy on the family. But the same limited resource — human attention — also underlies the learning process. A family relationship requires shared time and attention; reading and school require sustained attention. If the same digital economy systematically fragments this resource, it is not surprising that the effects appear simultaneously in different spaces. We do not claim that the smartphone or social networks alone explain the decline of Romanian education, which has well-known institutional, demographic and cultural causes. We do, however, claim that they introduce an additional mechanism, common to all these areas: the transformation of attention from a condition of learning into an economically exploited resource. From this point, the logic of the "snowball" almost inevitably reappears in school.

The same logic—self-maintenance, not a repeated external impulse—explains why the educational decline in Romania does not seem to stop on its own, but, on the contrary, deepens from one school cycle to the next.

However, it would be an oversimplification to attribute the educational decline exclusively to digitalization. School results are influenced by numerous factors: the quality of the curriculum, teacher training, family social status, migration, underfinancing of education or demographic changes. The specialized literature does not claim that the smartphone alone explains these developments. What a growing body of research suggests, however, is that the attention economy acts as an amplifying factor: it reduces the time available for deep reading and concentration, making it more difficult to compensate for the other vulnerabilities of the system. In other words, technology does not replace the classic explanations of educational decline, but overlaps with them and may accentuate their effects.

Historian and essayist Mircea Platon documented, in the volumes "The Deschooling of Romania" (2020) and "The Educational Comintern and Digital Deschooling" (2024), the thesis that the successive reforms in Romanian education, begun in the 1990s, followed, with striking consistency, exactly the same steps previously taken in other countries — the United States in the 1950s-1960s, France in the 1970s — from the deprofessionalization of teaching staff to the replacement of classical rigor with a new psycho-pedagogical scholasticism. It does not matter, for the present argument, whether we accept Plato's interpretation of the origin and intention of these reforms in its entirety; what matters is his empirical observation — identical steps, in

different countries, at different times — because it describes exactly the pattern of a process that, once started, no longer needs a central plan to maintain it, but advances through its own institutional inertia.

It is important to distinguish two planes of explanation. Institutional reforms may lower educational standards from within the system, while the attention economy reduces, from without, the capacity of students and teachers to sustain deep reading and concentration. The two mechanisms are not mutually exclusive, but mutually reinforcing. It is precisely this overlap that explains why the decline is so difficult to reverse, so profound, and so severe.

And here comes the feedback loop, as clear as in the case of the family. A teacher trained in a system that demanded less of him—less comprehensive reading, less grammatical rigor, less working memory exercised through sustained practice—cannot, however well-intentioned he may be, transmit to the next generation something that he himself has not practiced sufficiently.

It is not personal fault, it is simply an impossibility: you cannot teach, at a consistent level, a skill that the system has not given you the opportunity to build solidly. That teacher's students will become, twenty years later, the teachers of the next generation — and the bar, which has been lowered a little at each turn, will, after three or four cycles, reach considerably lower than the starting point.

Just like inflation: there is no need for a deliberate decision to "lower the level" at each step — it is enough for each generation to faithfully transmit exactly what it received, for the cumulative decline, in the long term, to be massive.

Official data on Romania confirms a real decline, published by the OECD, in the PISA 2022 tests, Romania obtained 428 points in each of the three tests — mathematics, reading and science — which places the country in 45th place out of 80 countries in mathematics and reading and in 48th place in science. The OECD average is approximately 50 points above the Romanian result. The correlation between this educational gap and students' massive digital exposure during their free time is a hypothesis supported by a growing body of research, although the exact causal relationship remains a subject of active research, not a foregone conclusion.

Neuroscientist Maryanne Wolf, author of Reader, Come Home, shows that reading.

6. WHEN YOU START THINKING FOR US. AFFECTING JUSTICE

AI should not be treated as a separate phenomenon from the rest of the digital ecosystem, but as a multiplier of already existing trends.

On the one hand, automatic content personalization deepens exactly the attention-grabbing mechanisms described above.

On the other hand, a new and specific phenomenon appears: "cognitive offloading" — the tendency to delegate to an external tool cognitive processes (memorization, drafting, even reasoning) that the mind would otherwise have exercised alone.

A student who asks a language model to summarize a novel for him, instead of reading it, not only misses the opportunity to practice the circuit of deep reading I talked about above—he enters, one step earlier than previous generations, exactly the same snowball of unschooling.

But AI can also improve learning. At the moment it appears almost exclusively as a negative amplifier. But it should be said: used for explanation, feedback, personalization, AI can increase performance. The problem is the substitution of thought. The useful question of whether we use AI is how we use it: as a tool that complements thought, or as a substitute for it. The difference between the two is decided, to a large extent, at the level of habits formed from early education—and the next ten years will matter enormously.

Affecting the act of justice. It seems minor, insignificant, but the decrease in attention at 47 seconds affects the very act of justice or the quality of legislation.

A judge, lawyer or legislator suffering from technoference and fragmented processing will tend to draft/analyze judgments and normative acts based on superficial syntheses, templates (or even generated by AI without verification), losing the ability to systematically and teleologically interpret the law.

7. AN OLD PATTERN: WHY EVERY GENERATION THINKS ITS TECHNOLOGY IS THE FIRST DISASTER

The 1953 Harvard Report is not the only such episode. At the same time, in the United States, the psychiatrist Fredric Wertham published "Seduction of the Innocent", a study which claimed, with an impressive scientific apparatus for its time, that comics cause juvenile

delinquency - a thesis that led, in 1954, to the establishment of a code of self-censorship for the entire American comic industry.

Forty years later, in the 1990s, the same argumentative structure was recycled almost identically against video games, accused of engendering violence, isolation and school failure. Today we know, from more rigorous subsequent research, that the connection between comics and delinquency was largely a moral construct, not a solid empirical finding; and the link between video games and real-life violence has, in turn, turned out to be much weaker than originally claimed.

Why is this historical detour worth it? Because it helps us distinguish two things that moral panics always conflate: the fact that a new technology changes behavior (true, every time) and the fact that that change is necessarily a moral catastrophe (false, most of the time, at least in the exaggerated form in which it is announced).

What I propose in this article is not a repeat of the fear of 1953 or 1954, but its exact opposite: an analysis that takes the hard evidence seriously—technoference, measurably declining attention, PISA scores—and clearly separates it from unsupported speculation, however intuitive the latter may seem.

The couple: a broken conversation, not a single break.

Researchers Andrew Przybylski and Netta Weinstein published in the Journal of Social and Personal Relationships a simple and hard-to-dispute experiment: pairs of strangers were made to talk for ten minutes, some with a phone visible on the table, some without.

Those who had the phone in their field of view—even though no one was touching it—reported lower conversation quality and less perceived closeness to the interlocutor compared to pairs without a phone on the table.

The mere presence of the device, as a latent possibility of interruption, is enough to change the way we listen to each other. In a couple who have lived under the same roof for years, this effect doesn't happen just once over dinner—it happens thousands of times over dinner, in bed, in the car, and the sum of it, not dramatic in isolation, is exactly what many partners describe, upon separation, as "we drifted apart without knowing exactly when."

Who is more vulnerable?

The effects of these transformations are not equally distributed in society. Groups with less access to quality education are repeatedly the weakest in distinguishing verified information from

manipulation, which also makes them the easiest targets for polarizing content and misinformation. The decline of reading is not, then, just an abstract cultural loss—it is also a loss of a concrete cognitive defense against.

8. WHY THE SOLUTION DOESN'T START IN PARLIAMENT, BUT IN THE LIVING ROOM

I showed earlier that it is not technology alone that decides the future of the family, but the rules that a society imposes. We need to be clear about what we mean by "rules", because the term can seem abstract. We're not primarily referring to laws voted in Parliament — although those matter too, and the European Regulation on Artificial Intelligence (AI ACT) and the Digital Services Act are real steps in the right direction. We are referring to something closer to each reader: to the small rules, negotiated in each home and in each classroom — whether or not there is a place for phones at the dinner table, whether or not there is a habit of reading aloud to the little ones, whether or not there is a time of the day reserved, explicitly, for conversation without screens. These private rules, taken one by one, seem negligible in the face of a multi-billion dollar global industry. But exactly the same thousands of small decisions that build, aggregated, the self-reproducing process of distance, can build, aggregated in the opposite direction, a lump of closeness. The difference between the two directions lies not in a law or a study, but in what we choose, repeatedly, on a typical Tuesday night.

9. WE CANNOT STOP A SNOWBALL WITH A SINGLE GESTURE

If we accept that the underlying mechanism is one of self-maintenance, not of simple cause and effect, then the solutions must also be thought of differently. A government fighting inflation isn't content to freeze prices for a week — it knows it needs to change expectations, not just the symptom of the moment. Likewise, a family or a school trying to stop this snowball won't succeed with a single symbolic gesture — an evening without phones, a month-long campaign. It will require a sustained change in habits, repeated often enough that the new habit becomes, in turn, self-sustaining, in a good way: the more a family reads together, the more the children demand more reading themselves; the more a school succeeds in training a few excellent teachers, the more they in turn train other excellent teachers.

The snowball can also roll in the right direction—but it needs the same kind of structural persistence as the one rolling down.

From moral panic to evidence-based policy.

The correct conclusion of this analysis is not an indictment of technology, but a shift of responsibility from the individual to the system. Several directions already have documented results in other countries — but even here the evidence is not uniform, this nuance must be recognized, not hidden:

• Banning phones in schools is, perhaps surprisingly, the measure with the most uneven results in the literature. Economists Louis-Philippe Beland and Richard Murphy, analyzing bans applied in Great Britain, found an increase in school results especially among low-performing students.

In contrast, a rigorous replication in Sweden by Kessel, Hardardottir and Tyrefors found no measurable effect of the ban on school performance. The honest conclusion is not "the ban works" or "the ban doesn't work," but a less comfortable one: a simple ban without other structural changes around it seems insufficient on its own—exactly what we'd expect if we accept that we're talking about a snowball built up over years, not a switch we can flip;

• Minimum verifiable ages for creating accounts on social networks, coupled with algorithmic transparency obligations for platforms — the direction taken by the European Regulation on Artificial Intelligence (AI Act) and the Digital Services Act (DSA);

• National programs to reactivate reading, built on data, not blanket moral appeals, and thought long-term — because, as we have shown, a single school cycle cannot reverse a decline accumulated over three generations;

• Compulsory digital education in schools, focused on the critical use, not just the technical use, of digital tools and AI; Perhaps exaggerating, someone said that the digitization of education in Romania was reduced to some illegal profits brought by the purchase of useless tablets, programs and systems for adults, and digital tools for students to "copy", to cheat exams.

• The priority formation of a core of teachers with solid training in deep reading — not as a symbolic gesture, but as a deliberate investment in the point in the chain where the cumulative mechanism (the lumps) can be effectively turned around.

The point that should remain, beyond any pointed recommendation, is simple and hard to ignore: It is not technology alone that decides the future of family and education, but the rules that a society chooses—or refuses—to impose on how it is designed and used.

Moral panic solved nothing in 1953, in front of the telly.

10. FERENDA BILL PROPOSALS

1. Proposal on the introduction of the Mobile Phone-Free School Environment (National Level)

Title / Amendment: Amendment and completion of the Pre-university Education Law no. 198/2023.

Proposed normative content: "Art. 106 – (1) The use of mobile phones and individual electronic communication devices by students is prohibited throughout the school program (class hours and breaks) in primary and secondary education. (2) In high school education, the use of electronic devices may be authorized exclusively during class hours, strictly for teaching purposes, under the direct guidance of the teacher. (3) Educational units are obliged to ensure secure spaces for storing devices during the school program, as well as alternatives for active recreation during breaks."

Motivation: Although the international literature presents nuances, unitary implementation, coupled with physical storage infrastructure and alternative activities during breaks, eliminates attention fragmentation and reduces the phenomenon of cyberbullying in the school environment.

2. Proposal on the Legal Liability of Social Platforms for Addiction Mechanisms Intended for Minors

Title / Amendment: Completing the Legislative Framework on Digital Services and the Protection of Minors (Alignment with the DSA/AI Act).

Proposed regulatory content: "Art. X – (1) Providers of social media platforms and digital content are prohibited from using addictive interface architectures (such as infinite scroll, autoplay, unannounced variable rewards and nightly push notifications) in accounts accessible to minors under 18 years of age. (2) The creation of accounts on social media platforms by minors aged between 13 and 16 years is subject to the express and verifiable consent of their parents or legal representatives, through a secure national/European age verification system. (3) Failure to comply with these provisions constitutes a serious offence and is punishable by a fine of up to 4% of the provider's global turnover."

Motivation: Moving from the exclusive responsibility of the parent to the strict legal responsibility of the digital service provider, sanctioning addictive design (Dark Patterns) directed against the developing brain of the minor.

3. Proposal on the Obligation of Transparency and Ethical Integration of AI in the Educational Evaluation and Writing Process

Title / Amendment: Regulation of the use of Generative Artificial Intelligence systems in the pre-university and university environment (Supplementation of Law no. 198/2023 and Law no. 199/2023).

Proposed normative content: "Art. Y – (1) The use of generative artificial intelligence systems by pupils and students in the development of assessment papers, exams or bachelor's/dissertation papers without explicit mention of the tool and the instructions used (prompts) constitutes academic fraud. (2) The Ministry of Education will establish the National Guide on the Use of AI as an Auxiliary Tool, prohibiting the total substitution of writing, reading and text analysis processes. (3) Educational institutions are obliged to introduce mandatory annual modules of "Attentional Hygiene, Deep Reading and Critical Thinking" for pupils and teachers."

Motivation: Combating the phenomenon of cognitive offloading (total cognitive delegation) and protecting the deep reading brain circuits (deep reading circuitry), by establishing clear boundaries between auxiliary technological support and the substitution of human critical thinking.

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LEGAL EDUCATION AND CULTURAL EVENTS. THE CLUJEAN-TIFF CASE STUDY

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Motto: *"Democracy is like air: we only truly understand its value when it begins to be lacking." Piero Calamandrei, jurist, professor of civil procedural law, rector of the University of Florence, antifascist politician and, crucially for Italian history, one of the founding fathers of the post-war Italian Constitution*

ABSTRACT

Twenty-five years after its first edition (2001), the Transylvania International Film Festival (TIFF) can no longer be seen exclusively as an event dedicated to cinema. The festival has become part of the identity of the city of Cluj-Napoca and an example of how culture can influence economic life and social relations. We will try to talk about TIFF from an interdisciplinary perspective, located at the intersection of law, economics and cinema. Beyond the financial impact of the festival, we will highlight the role that film can have in developing civic spirit, in strengthening respect for the values of the rule of law and in initiating a legal culture accessible to the general public.

Starting from the constitutional concept of the right to culture and the research direction Law and Film, we suggest that a film festival can become a space for collective reflection on justice, responsibility and social coexistence. At the same time, the economic and symbolic effects that TIFF produces on the host city are analyzed, as well as the challenge of transforming a temporary cultural success into a sustainable resource for the community.

KEYWORDS: *TIFF, right to culture, Law and Film, cultural economy, legal education, social capital, cinema, Cluj-Napoca.*

J.E.L. Classifications: A20, K10, K19, L82, Z10, Z11, Z13.

1. INTRODUCTION. WHEN A FESTIVAL BECOME A LEGAL AND SOCIAL FACT

Every June, Cluj-Napoca changes its rhythm. For about ten days, the city's cinemas, squares, courtyards and historical spaces become meeting places for thousands of spectators from the country and abroad. The city seems to function according to other rules: people organize their schedules according to the screenings, conversations continue after midnight around the films they have seen, and public spaces acquire a vitality that few other cultural events manage to generate. However, this transformation raises questions that go beyond the field of cinema. What does the existence of such a festival mean, from a legal and social point of view? To what extent can a cultural event contribute to the effective exercise of the right to culture enshrined in Article 33 of the Romanian Constitution? And, more importantly, can culture influence the way a community understands justice, responsibility and civic life?

An interesting analogy can be made with the Greek institution of Ekecheiria, the sacred truce established during the Olympic Games. In the Hellenic world, the temporary cessation of conflicts had not only a religious but also a legal significance: it created a safe interval in which people from rival cities could circulate, dialogue and participate in a common event.

Of course, the comparison should not be pushed too far. TIFF does not suspend political conflicts, nor does it produce legal effects similar to the ancient truce. However, it creates a framework in which social, professional or generational differences become less important than the shared cultural experience. In the cinema hall, the lawyer sits next to the student, the teacher next to the tourist, and the dialogue that follows the screening is carried out between people who, normally, would not have met.

This capacity to create community explains why major festivals are analyzed today not only by film historians, but also by specialists in public policy, urban economics and cultural law. They contribute to the formation of a social capital that is difficult to measure statistically, but essential for the functioning of a democratic society: mutual trust, openness to dialogue and participation in community life.

From this perspective, TIFF can be seen as a space where culture ceases to be a simple act of consumption and becomes a civic experience. Film does not offer legal solutions, but creates the context in which questions about justice, responsibility or freedom can be discussed in an accessible and humane way.

2. TIFF AND THE ECONOMY OF A COMMUNITY. MORE THAN ENTIRE REVENUE AND STATISTICS

The economic impact of a festival is usually the first argument invoked to justify its financing. The number of tourists, the occupancy rate of hotels, the income generated in the HoReCa sector or the increase in local consumption are important indicators and relatively easy to quantify. In the case of TIFF, all these effects have been consistently documented over the past few years.

However, reducing the phenomenon exclusively to these figures would be insufficient. The economy of a cultural festival also works through less visible mechanisms, but with long-term effects.

A first effect is the reputational one. In the contemporary economy, the image of a city represents a resource in itself. Investors, international students, professionals from the creative industries or tourists increasingly choose communities that offer not only infrastructure, but also an active cultural life. From this perspective, TIFF contributes to strengthening the Cluj brand in a way that few institutional promotion campaigns can match.

The festival also produces an effect of economic trust. During its duration, hundreds of legal relationships develop: sponsorship contracts, transportation services, space rentals, artistic collaborations, commercial activities and partnerships between public institutions and private operators. Beyond their immediate financial value, these relationships consolidate an economic environment based on cooperation and predictability.

There is also a less discussed aspect: festivals contribute to what economists call relational capital. Professional networks are formed around them between artists, entrepreneurs, academics, representatives of the administration and investors. Some collaborations cease with the festival, others generate cultural, educational or economic projects that continue for years.

From a legal perspective, all these interactions assume a complex regulatory framework. Organizing an international festival involves rules regarding the use of public property, the protection of built heritage, the safety of participants, copyright, the sponsorship regime, commercial contracts and cooperation between local authorities and the private sector. TIFF thus becomes a concrete example of how the law creates the necessary conditions for the development of a large-scale cultural activity.

Finally, perhaps the most important economic contribution of the festival is one that is difficult to express in statistical indicators. TIFF generates trust in the city that hosts it. And in an economy

increasingly based on creativity and innovation, trust is one of the most valuable resources of a community.

3. THE RIGHT TO CULTURE: BETWEEN THE CONSTITUTIONAL NORM AND CONCRETE EXPERIENCE

The right to culture is one of those fundamental rights that is frequently talked about in theory, but which is harder to observe in everyday life. Article 33 of the Romanian Constitution guarantees access to culture and obliges the state to support the preservation and development of cultural heritage, but the effectiveness of such a rule cannot be evaluated exclusively by the existence of cultural institutions or by budget allocations.

TIFF provides a suggestive example. During the festival, cinema leaves the traditional space of the cinema hall and occupies public squares, courtyards, gardens or heritage buildings. The film becomes accessible to audiences that do not normally frequent art cinemas. This openness does not only mean the diversification of the cultural offer, but also the democratization of access to culture.

There is also an identity dimension that is worth noting. The linguistic and cultural diversity present in the TIFF selection reflects the values of a democratic society. Films screened in different languages, bilingual subtitling and attention to minority cinema are not mere curatorial choices. They convey the idea that cultural pluralism is not a concession made to some social groups, but a natural expression of the right of each person to participate in cultural life in their own language and according to their own identity. From this perspective, TIFF not only illustrates the existence of the right to culture, but also how it can contribute to the cohesion of a community.

4. FILM AND LAW. WHY CINEMA CAN EDUCATE SURPRISINGLY WELL

In recent decades, some law schools in Europe and the United States have introduced courses called Law and Film. At first glance, the association may seem surprising. Law operates with norms, arguments, and procedures, while cinema belongs to art and imagination.

In reality, the two fields have more in common than one might think.

Both the judicial process and film try to answer the same question: what really happened? The difference is that the court seeks to establish a legal truth, sufficient and binding for the delivery of a judgment, while cinema explores human truth, with its contradictions and ambiguities.

This proximity explains the growing interest in the use of film in legal education. A textbook can very well explain the institution of the presumption of innocence or the rules of evidence administration. A film tries to show the human consequences of these principles.

The judge does not resolve abstract cases, but conflicts that affect individual destinies. The lawyer does not only defend legal interests, but people in a situation of vulnerability. The prosecutor does not exclusively pursue the application of the law, but also the protection of the public interest. These dimensions are difficult to capture in a university course, but become evident in a well-constructed cinematic narrative.

Great films about justice do not offer simple answers. They avoid dividing characters into heroes and absolute culprits and force the viewer to accept the existence of uncertainty. And this acceptance is one of the most important qualities of a good lawyer.

In the practice of law, there are rarely perfect solutions. There are competing arguments, incomplete evidence and situations in which the law must be interpreted with caution. The auteur film familiarizes the audience with precisely this complexity. It does not transform the viewer into a legal expert, but it helps him understand that the act of justice is more difficult than it seems from the outside. For this reason, cinema can become a genuine tool of informal legal education.

5. CAN A FILM FESTIVAL CHANGE PEOPLE'S RELATIONSHIP TO THE LAW?

The question seems ambitious, but the literature on legal psychology offers a nuanced answer.

Compliance with the law does not depend solely on the existence of sanctions. A society functions stably when most people comply with the rules because they consider them legitimate and useful, not just out of fear of punishment. Organized programs/activities have a direct, quantifiable impact on the quality of life and well-being of the community. (Maniu A Tom Tyler observed that trust in institutions and the perception of the fairness of procedures decisively influence voluntary compliance with the norm.

In this context, film can have a more important role than it seems at first glance. A viewer who watches an intelligently constructed film is invited to look at the same situation from different perspectives. See the cinematic masterpiece *"12 Angry Men"*. In a few minutes, he can come to understand the arguments of the victim, the defendant, the lawyer and the judge. This exercise of continuous change of perspective develops empathy and reduces the temptation of hasty judgments.

Many of the films awarded at major international festivals do not offer a comfortable ending. They leave the viewer with questions, not with certainties. It is precisely this intellectual unrest that stimulates moral reflection.

In fact, the law itself operates in a similar logic. A court decision A solid decision is not the result of an instinctive reaction, but of a process of deliberation. The judge weighs arguments, evaluates evidence and tries to construct the fairest possible solution within the limits of the law. Seen in this way, the film becomes an exercise in deliberation. It does not tell the viewer what to believe, but forces him to reflect before formulating a conclusion. It is, perhaps, one of the most valuable contributions that cinema can make to a democratic society.

6. FILMS THAT CULTIVATE DISCERNMENT AND THOSE THAT NORMALIZE VIOLENCE

Not every film produces the same effect on the audience. Cinema, like literature, educates not only through its subject matter, but also through the way it constructs its characters, conflicts, and solutions. From this perspective, a festival like TIFF has a responsibility that goes beyond artistic selection: that of proposing films capable of stimulating reflection, not just the rapid consumption of images.

This observation is all the more important in the case of young audiences. Adolescence and the beginning of adult life are periods in which not only cultural tastes are formed, but also the relationship to authority, justice, and responsibility. Film can influence these processes in a subtle way, sometimes more effectively than didactic discourse or a civic education textbook.

The relevant criterion is not whether a film talks about judges or lawyers, but whether it teaches the viewer to think before judging.

6.1. Films that develop legal culture and civic spirit

Some films manage to transform the cinema into a space for reflection on justice. They do not offer easy answers nor do they divide the world into completely good or completely bad characters. It is precisely this complexity that gives them educational value.

Two Men in the City: The French classic with Alain Delon, Jean Gabin and Gerard Depardieu that had such a great impact on the public that legend has it that, the very next year, the death penalty was abolished in France. Unjustly forgotten and unstudied. It should be mandatory seen in police

schools to debate how the different human attitudes of some police officers can save or destroy a man.

12 Angry Men (Sidney Lumet): The power of rational argument and the moral obligation to listen before deciding. Although the action does not take place in a classroom, this classic is, in essence, the purest lesson in applied legal education that a future lawyer can receive. 12 jurors who must decide the fate of a young man demonstrate how personal prejudices can distort justice and how difficult it is to maintain a "reasonable doubt" in the face of a hostile majority. The film educates the viewer in the spirit of legal rigor, showing that law does not mean absolute certainties, but critical analysis of each piece of evidence and the enormous responsibility of not convicting an innocent person. It is the film that should be shown to every generation of law students.

Anatomy of a Collapse (Justine Triet): Few recent films illustrate so well the difference between factual truth and judicial truth. The trial presented in the film does not only aim to identify a guilty person, but highlights the difficulty with which the court reconstructs reality when the evidence is incomplete or interpretable. For a law student, the film is a lesson in the presumption of innocence and the limits that any judicial system must accept in its search for truth.

The Tribunal (Chaitanya Tamhane): The Indian film avoids spectacular dramatization and presents justice as it is in many legal systems: slow, bureaucratic and sometimes overwhelmed by its own procedures. The merit of the film lies in the fact that it forces the viewer to understand that justice does not depend only on the existence of good laws, but also on the way in which they are applied.

Collective (Alexander Nanau) More than a documentary about the tragedy at Colectiv, the film is a reflection on the responsibility of public institutions. It demonstrates that the violation of apparently technical administrative norms can have dramatic consequences on the right to life and on citizens' trust in the state. For future lawyers, economists or civil servants, the film is a lesson in the importance of transparency and administrative responsibility.

The Life of Others (Das Leben der Anderen The film shows how law loses its meaning when state institutions become instruments of surveillance and repression. For young people who have not experienced totalitarian regimes, this film explains better than many constitutional law treatises why the independence of the judiciary and the protection of privacy are not mere theoretical concepts.

To Kill a Mockingbird The character of Atticus Finch continues to be one of the most powerful professional role models for any lawyer. The film does not glorify the legal profession, but rather

reminds us that the true measure of a lawyer is not media success, but the willingness to defend the principles of the rule of law even when public opinion is hostile to him.

The Paper Chase (James Bridges) The Paper Chase is considered the absolute standard in cinema when it comes to surviving law school and its impact on the human mind. The film follows a first-year Harvard student and his extremely tense relationship with the legendary Professor Kingsfield, a titan of contract law who uses the Socratic method to terrorize and motivate his students. It is a brilliant analysis of how a legal education radically changes the way you think, isolate facts, and put emotions aside in the face of the law.

The Legacy (Francis Ford Coppola) Based on a novel by John Grisham (The Rainmaker), the film offers a brutally realistic perspective on the transition from the university benches directly to the jungle of the courts. A young law graduate, completely unprepared for the cynicism of the system, ends up taking on a huge fraud case against a corrupt insurance company. The film is an excellent lesson in professional ethics, the limits of student idealism and the importance of resilience when you are a simple rookie fighting armies of corporate lawyers.

Why Me? (Tudor Giurgiu) Film based on the true, deeply tragic case of the young prosecutor Cristian Panait. The story follows a brilliant and idealistic magistrate who strongly believes in truth and justice, but who receives a high-level corruption case involving secret services and politicians. It is perhaps the most powerful and brutal lesson about the collision between the idealism taught in college and the reality of the backstage games of a deeply flawed system.

Why are these films important? They all have one thing in common. They do not teach the viewer what to believe, but how to think. They cultivate the patience of argument, respect for evidence, empathy, and the acceptance that people and legal conflicts are almost always more complex than they appear at first glance. These skills are useful not only for a lawyer, but for any citizen of a democratic society.

6.2. What kinds of films should be viewed critically?

To say that certain films should be banned would be incompatible with the freedom of artistic creation and freedom of expression. The diversity of cinematic expressions represents a value in itself. However, one thing is the freedom to create and another is the educational value that we attribute to a work.

From the perspective of the civic education of young people, certain types of productions deserve critical discussion.

First, there are films in which violence becomes the main form of conflict resolution. The main character acts outside the law, does his own justice, and his success is presented as the moral justification for violating the norms. Such narratives cultivate the idea that efficiency is more important than legality and that state institutions are useless.

This type of message may be cinematically attractive, but it is problematic from the perspective of legal education.

Secondly, it is worth looking with caution at films that transform crime into a form of social prestige. Some productions build charismatic characters around the mafia, corruption or drug trafficking, without insisting enough on the moral and human costs of these choices. The risk lies not in the existence of these characters, but in their romanticization.

Last but not least, the culture of internet algorithms increasingly favors the consumption of very fast-paced productions, based on continuous action and immediate emotional rewards. These films can be excellent as entertainment, but when they become the only form of contact with cinema, they reduce the viewer's availability for reflection and dialogue.

The problem is not the existence of blockbusters, but the absence of alternatives.

This is precisely where a festival like TIFF comes into play. It does not compete with commercial cinema, but complements it, proposing films that demand patience, attention and the willingness to accept the complexity of the world.

In an era where social networks encourage immediate reactions and categorical judgments, perhaps one of the most important lessons that auteur cinema offers young people is that almost no human conflict can be reduced to a response of a few seconds.

7. AFTER THE FESTIVAL. HOW CAN CULTURAL EFFRENCIA BECOME A SUSTAINABLE PUBLIC POLICY?

One of the most interesting challenges that TIFF raises is not the organization of the festival itself, but what happens after it ends.

Every year, for about ten days, the cinemas are full, the debates continue until late at night, and the public spaces become lively places of meeting and dialogue. Cluj seems to be rediscovering the pleasure of cultural conversation. However, after the last guests have left and the last screen in Union Square has turned off, the city gradually returns to its usual rhythm.

This contrast raises a legitimate question: can a festival, no matter how successful, sustainably change the cultural habits of a community?

The answer is probably no.

But it can create the conditions for this change.

There is a simple principle in economics: investments produce long-term effects only if they are followed by coherent policies. The same is true in the field of culture. A festival can generate enthusiasm, visibility and participation, but it cannot replace permanent cultural infrastructure. Therefore, the success of TIFF should be seen not as a point of arrival, but as an argument for the development of more ambitious public policies.

On the one hand, art cinemas must be seen as institutions of public interest, not just as commercial spaces. They can become permanent places of cultural education, debate and civic formation.

Secondly, the collaboration between universities and festivals could be expanded. Law, Economics, Political Science or Sociology faculties have in cinema an insufficiently exploited teaching tool. A film followed by an interdisciplinary debate can sometimes produce a deeper understanding than an exclusively theoretical lecture.

After all, respect for the law does not begin in the courtroom. It begins in the family, in school and in cultural spaces where people learn to listen to the arguments of others before formulating their own verdict.

CONCLUSIONS

After a quarter of a century of existence, the Transylvania International Film Festival can no longer be understood exclusively by the number of spectators, the value of sponsorships or the prestige of its guests. All of these are important, but they do not fully explain the place that TIFF occupies today in the life of the city and in the Romanian cultural landscape.

Seen from a legal perspective, the festival represents a convincing example of how a fundamental right – the right to culture – can become a concrete, accessible and participatory experience. From an economic perspective, it demonstrates that investing in culture produces effects that go beyond the income generated during the event and contributes to the reputation, attractiveness and competitiveness of a city (**Maniu, D. A., Maniu, E. A., Mihaly, B., 2019**). From an educational perspective, TIFF offers something that a classroom can hardly reproduce in its entirety: the direct

encounter with stories that force the viewer to ask questions about justice, responsibility and the human condition.

This is precisely where law and cinema meet.

Both seek to understand human behavior. Both seek the truth, even if they use different tools. The court issues rulings; the film provokes reflections. The court establishes legal consequences; based on meticulous, scientific research, cinema cultivates the inner willingness to understand why the law exists and why respecting it represents, above all, a moral and civic choice.

In a society where information circulates at an unprecedented speed, and opinions are often formed before facts, legal education can no longer remain exclusively between the covers of textbooks. It needs languages capable of speaking to both emotion and reason. Film can be one of these languages. It is, but often the greatest impact is from films that we do not want as educators.

Perhaps the true achievement of TIFF does not lie in the number of films screened or the awards given, but in the fact that, year after year, it manages to gather people who think differently in the same room and to make them, at least for two hours, watch the same story with the same attention. In an era marked by polarization and increasingly difficult dialogue, this is not only a cultural achievement, but also a profoundly civic one.

Instead of an epilogue:

We repeat **Piero Calamandra's** words from the motto, in his historic Speech on the Constitution of 1955, democracy is like air: we only feel its value when it begins to be lacking. The same could be said about culture. We feel this in all social spheres, from car traffic to the quality of Romanian politicians.

We rarely notice how much a film festival contributes to the health of a community. It does not appear in the statistics on the gross domestic product, it cannot be measured in the number of contracts concluded, and it does not produce legal effects.

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HUMAN CAPITAL MIGRATION FROM EASTERN EUROPE
An interdisciplinary legal, economic and psychological analysis

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ABSTRACT

The brain drain in Central and Eastern Europe towards the west of the continent has long gone beyond the theoretical framework of a simple reconfiguration of the labor market. The article proposes an interdisciplinary research on the determinants that fuel the departure of highly qualified specialists, dismantling the reductionist hypothesis according to which the wage differential would represent the only major motivation. We examine the synergy between the gaps in the legal-institutional framework, the structural vulnerabilities of the labor market and the psychosocial stress felt by professionals in the home environment. To analyze the economic aspects of the socio-economic aspects, study the strategic direction of reform in order to ensure that the capital is valuable and critical of the current situation.

KEYWORDS: *migration, human capital, brain drain, labor law, regional development, public politicians.*

J.E.L. Classifications: F22, J24, O15, R11, K31, D72

1.INTRODUCTION

This is a private trend in demographic development and is socio-professional during the last decade in Europe and Estonia, with rapid mobilization for personal development as well as the opportunity to solve problems. Now we recommend that you provide care for your care during your stay, so that you can provide adequate care for your medical care, so that your care is catered to your exact needs and you can use it as a company with private care that can be used at the top.

The phenomenon of the brain drain – known in English as the brain drain – has profoundly shaped the social and economic landscape of Central and Eastern Europe, and Romania is one of the most telling examples in this regard.

Too often, public discourse treats emigration in simplistic terms. You can use it automatically to make your own savings through the process of completing your trip. In reality, things are considerably more nuanced. The decision to leave is the immediately calculated complicated result in which the balance tilts due to the annoyances accumulated day by day: the suffocating bureaucracy, the feeling of being limited, the lack of predictability of the laws and the tormenting sensation that the effort You now appreciate the community of the institutional statutes. As Marian Adrian shows in the work Why do Romanians emigrate?, the decision to emigrate is the result of the interaction between economic, institutional, cultural and psychological factors, and professional opportunities represent by their component parts of this complex process.

This paper aims to go beyond unilateral explanations. We propose to dissect the migration of human capital by combining three complementary lenses: law, economics and social psychology. Only by putting together institutional stability, financial incentives and the employee's state of mind can we truly understand why elite professionals leave and, above all, what we can do practically to restore their trust in the native environment.

2. THEORETICAL FUNDAMENTALS

To build a rigorous model, we must also clarify our terms. The concept of "human capital", established by economic theorists such as Gary Becker or Theodore Schultz, now reduces to the number of workers in a country. It designates the set of knowledge, skills, competencies, health status and accumulated experience of individuals, elements that increase their productivity and creative potential. You can use this as an engineer specialist as an automated vascular surgeon for your practice, now you can use a simple tool for taxation, so you can use the capacity as a guide to a generation of your own.

Classical migration theories, based on the 'push-pull' model, explain population movement through the tension between repulsive factors in the country of origin (low wages, corruption, lack of infrastructure) and attractive factors in the destination country (high income, personal safety, modern hospitals). However, in the case of highly qualified professionals, the push-pull mechanism works much more subtly. It is important to know that you are doing this in Berlin in

Lyon and that you are doing your research, so that you can evaluate the laboratory results, grant your approval transparently and take care to evaluate the merits of the criteria.

From a legal perspective, it is important to mobilize the manpower to be consistent with your fundamental principles in the European Union. Freedom of movement for workers represents one of the pillars of the single market. However, there is a deep gap between the abstract right to work anywhere in the Community and the asymmetrical effects that this right produces on Eastern states. The right to work and institutional guarantees should not be seen as restrictive norms, but as an ecosystem of protection and stimulation. In addition to a solid legal basis, the legal foreseeable is simple, simple freedom with the circulation and the transformation of capital so as to ensure that capital is fully responsible for economic development.

3. DETERMINANȚII ECONOMICS

The economic dimension remains, without a doubt, the first visible trigger of migratory flows. However, the analysis should not stop at a simple comparison between the gross salary in Romania and that in Germany or France. The first step is to put the purchase price, the quality of public services received in exchange for taxes paid and the prospects for long-term wealth accumulation. A critical factor often ignored is the tax structure and the way it penalizes or encourages highly skilled work. In a multi-state country in Europe and the Estonian, it is responsible for contributing to the social welfare as well as the primary responsibility for the provision of financial services and public service, with the aim of being the first to do so. education and infrastructure to contribute to sales. You can be a specialist when it comes to the treatment of the injury so that you can continue with your budget, so you can continue with the treatment so that you can continue with the treatment. However, as Marian Adrian highlights in the course Financial and Fiscal Law, policies and redistribution mechanisms must be analyzed together with the efficiency of spending public resources and the capacity of institutions to generate sustainable economic development.

Another economic dimension concerns concrete career opportunities. As an emerging economy in the East, there is a great deal of polarization: the only part of the existence of a technological hub is the multi-national corporate restricted to a few large cities (Cluj-Napoca, Bucharest, Timișoara, Iași), and on the other hand extensive areas affected by a lack of investment and poorly paid jobs. This concentration accentuates internal polarization, first determining an internal migration from

rural areas/small towns to large university centers, frequently accompanied by external emigration when large cities become too expensive or blocked in terms of furniture and urban planning.

4. LEGAL AND INSTITUTIONAL DETERMINANTS

It is clear that this is the first step in the legal process, the legal process is the institutive explanation for the personal decision and the final decision is made as soon as possible final.

Legal security is not an abstract concept for constitutional law manuals; and other sentiments regarding the care that you take into account if you wish to do so, so that you can legally adopt them now and consult them publicly.

The legislative instability in the fiscal domain, labor law and administrative organization creates an opaque and hostile environment for personal initiative. Professionals in the medical field, in education in the private sector of the legal law and love the rules and contradictions, in the interpretation of administrative arbitration in a separate bureaucratic world. From a legal perspective, the institutively qualified directly influences the capacities of the statuary on a permanent basis. Legislative stability, normative predictions are efficient administraţiei contributors to creating a climate that favors the professional environment. In this sense, Marian Adrian emphasizes, in his work Risk and Governance Management in Organizations, that governance mechanisms and institutional risk management are essential elements for the efficient functioning of organizations and for strengthening citizens' trust.

Defective public governance and the perception of a lack of integrity in the promotion of civil servants or specialists in the state sector deeply erode the sense of justice. You can continue your career by being a politician who is favoritism and nepotism in your position as a proven, professionally qualified to be part of your career. They refuse to waste their energy fighting with a rigid institutional apparatus that sanctions initiative and rewards conformity.

Institutional case study: In the local medical-pharmaceutical sector, many young residents report that the main reason for emigration is not only the level of salary (which has increased substantially in recent years), but also the absence of diagnostic equipment, the lack of transparency in the competition for positions held for an indefinite period, and the fear of legal liability in an unclear and uncertain malpractice system.

5. PSYCHOLOGICAL AND SOCIAL DETERMINANTS

The next step is to ensure social stability and to ensure that the results are accurate and accurate, so that the exercise can be carried out as a matter of individuality. Especially in the case of highly qualified people. Man is not a piece on an economic chessboard; He needs recognition, a healthy work environment and a sense of separateness from the evolving community.

Maslow's pyramid has been useful as a pedagogical tool, but for several decades it has been demonstrated that the desire for individual self-determination, for emancipation, can in many situations exceed the first desires for food, rest, security and primary comfort.

One of the dominant factors in the depletion of human capital is professional burnout caused by toxic organizational climates. A multi-institutional company in Europe and the rest of the world persists in being an authoritative force, most of the time in driving a car.

The lack of constructive feedback, the absence of formal mentoring programs and the constant pressure to achieve results without adequate resources quickly lead to physical and mental exhaustion. This perspective of psychological psychology, especially in the fluency, is the basis for optimal health and professional development. The lack of mentoring, reduced promotion prospects and the unfavorable organizational climate determine many specialists to continue their careers in other countries. In the article Mentoring Activities in Public Administration, Marian Adrian shows that professional development and institutional mentoring mechanisms can contribute to the retention of qualified personnel and the consolidation of organizational performance. In addition to the dynamics in the workplace, social anomie also intervenes — the feeling of alienation from the norms and values of the community. When citizens lose trust in fundamental institutions (justice, school, health system) and notice a lack of empathy in the public space, apart from the “salvage emigration”. Professionals choose to leave not only for themselves, but especially for their children, eager to offer them a more airy educational environment and a cleaner and safer society.

6. THE REAL DIMENSION OF ROMANIAN MIGRATION

It is a cliché that says that the wealth of a country is not determined by the beauty of the landscape, the richness of the subsoil or the fertility of the soil, but by the education and training of the people who occupy that territory. It would be enough to compare the Netherlands and Japan

with Congo. But with Romania? That is, it is universally recognized that the most important capital of a country is human capital. Consider the fact that you should take the time to do this beforehand so that you can understand how to do it. The data are the first day of life is approximate. The National Institute of Statistics (INS) has quantifications especially according to domicile, and many emigrants keep their domicile in their country of origin and implicitly, they are hiding the phenomenon.

In Europe the Estonian is now facing the problem of migration in the center. Now let's take a closer look.

6.1. Percent of total population

In accordance with Eurostat, UN and OECD this would be the situation of the population born in Romania and residing in other states):

• 4.2 – 4.7 million Romanians live abroad (convergent estimates).

• Compared to the population of Romania (19 million), results approx. 22–25%.

• Some (old) analyses, UN -2020, indicate over 30% if we include temporary mobility + residents without shadowable residence.

Romania is, by proportion, the largest source of emigrants in the EU, surpassing Bulgaria, Lithuania and Latvia.

6.2. Percent of popular activity

The active population (15–64 years) is approx. 10.8 million. If 3.5–4 million active Romanians are abroad, it results that 32–37% of the active population is abroad. This is the indicator that shows the seriousness of the phenomenon: a third of Romania's workforce works in other countries.

Migration by age group (Eurostat data)

1. 18–34 years: the highest emigration rate (over 45% of emigrants).
2. 35–49 years: approximately 30%.
3. 50+: under 10%.

Romania is losing especially young, qualified population with innovation potential.

The fields with the highest emigration rate: medicine, IT, aerospace engineering, construction, research

6. 3. Physician migration – estimated and dramatic figures

Status of the number of Romanian physicians abroad (OECD)

• 2011: 12,789 medical professionals in the OECD state

• 2021: 21,802 Romanian physicians in OECD state → Created +70% in 10 years

Percent of total physicians trained in Romania

Romania has approx. 55,000 active medical professionals. If 21,800 are in OECD → approx. 28–30% of Romanian physicians practice abroad.

Intention to emigrate

College of Physicians Survey (2016): 82.3% since they declare their emigration. Reimbursement rate: 25–30%.

Internal deficit

• Romania: 282 medics / 100,000 inhabitants

• EU average: 360 medics / 100,000 inhabitants

Romania has one of the lowest doctor/inhabitant ratios in the EU, largely due to migration.

6.4. Migration in technical fields (aerospace, IT, cybernetics)

Official data is fragmentary, but there are indicators:

IT & Cybernetics: Romania produces ~7,000 IT graduates annually.

• ARIES and ANIS estimates: 40–50% leave in the first 3 years after graduation.

Aerospace engineering: Technical universities (UPB, UTCN) report that over 60% of aeronautical graduates work in Germany, France, the Netherlands, the UK.

6.5. Migration ranking in Eastern Europe (Eurostat, UN)

Percent of native population abroad:

Country % of emigrant population

Romania 25–30%

Bulgaria 20–22%

Lithuania 18–20%

Latvia 17–19%

Moldova 25–30% (non-EU)

Albania 30–35% (non-EU)

Romania is one of the top 3 global states and is popular among the active population.

7. CONSEQUENCES FOR ROMANIA AND EASTERN EUROPE

The effects of the massive brain drain are not long in coming and are generating major imbalances in the medium and long term. First and foremost, discuss the chronicity of the special

aspects in the vital sector. Can be my doctor, assistant, professor, construction engineers and researchers leave the country, the state's capacity to provide quality public services collapses. It is important to be careful with the medical care of the garda, to ensure that rural areas are duced to the qualified cadre, and always continue to be viciously underdeveloped.

Secondly, there are colossal unamortized public costs. The Romanian state invests significant amounts of public money in the education and training of a specialist — from primary school to residency or doctoral studies. At the same time, it is important to emigrate with final education, economic benefit and social this major investment is transferred free of charge to the receiving state (Germany, Great Britain, France, etc.), at the same time as the status of origin of your child. payment slip.

Already around the world, there are more of these Chilean regional demographics. The migration of skilled young people accelerates the aging process of the population in the country of origin and reduces the rate of local innovation. Communities left without professional elites lose their capacity to attract major private investment, being condemned to economic stagnation and dependence on social transfers or remittances sent to the diaspora — remittances which, while helping immediate consumption, can now This structural design ensures that the product is properly serviced.

8. RECOMMENDATIONS FOR PUBLIC POLITICIANS

To stop the depletion of human capital and transform the “brain drain” into a “brain gain / brain circulation”, this requires an integrated and courageous strategy, far from populist or heuristic measures. We propose a series of priority measures:

1. Modernization of governance and digitalization of public administration: Radical debureaucratization and elimination of contradictory legislative norms. The legal structure is simple, transparent and therefore reliable and reliable in terms of care and special care.

2. Implementation of meritocracy and mentoring programs: In the public sector and in academia, selection and promotion must be strictly decoupled from political interference. Mandatory institutional mentoring programs for young specialists will reduce frustration and accelerate their professional integration.

3. Reconfigure the fiscal incentives in the infrastructure of the research: Now it is sufficient to reduce the impact on performance; This is the best way to improve the infrastructure of the modern

region (laboratories, medical equipment, access to internal data) as the first step in technological progress is to reduce rapidly.

4. Policies to attract and reconnect the highly qualified diaspora: Creation of return grants to the country, simplification of procedures for equivalizing studies and diplomas obtained abroad and involving experts from the diaspora in national research and consultancy projects without requiring final relocation.

CONCLUSIONS

An interdisciplinary with a large capital base so that you can clarify the situation as you are now a part of Europe and the rest of the world.

Qualified people do not just go after higher salaries, but instinctively seek respect, legal security, institutional order and an environment in which their talent can flourish without bureaucratic obstacles or political interference.

For Romania, regaining and preserving human capital represents the ultimate test of state maturity. Economic factors only partially explain the phenomenon, while the quality of institutions, legal security, organizational culture and public policy become essential variables. As for the integrated approach, it would allow the formulation of public policies oriented not only towards reducing migration, but also towards capitalizing on human capital as the main driver of economic and social development in Europe, especially in Estonia and especially in Romania, where the migration of qualified and highly qualified labor has reached the proportions of a national cataclysm, alarmingly little debated and taken into the attention of political decision-makers.

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ORGANIZATIONAL RESILIENCE IN THE ERA OF ARTIFICIAL INTELLIGENCE: AN INTEGRATED FRAMEWORK FOR UNIVERSITIES AND PUBLIC INSTITUTIONS

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ABSTRACT

The article proposes an integrated framework through which public institutions and universities can build organizational resilience in the context of the accelerated adoption of artificial intelligence. Drawing on over two decades of experience in change management, conflict management, and comparative management, the author argues that technology alone does not produce resilience—it only occurs where organizational learning, quality management, and committed human leadership work together. The proposed model, AI + Organizational Learning + Quality Management + Human Leadership = Organizational Resilience, is tested through a comparative analysis between the public administration in Bihor County and the university environment in Cluj-Napoca, two complementary institutional contexts, and is accompanied by concrete proposals for each of them.

KEYWORDS: *resilience, digitization, budget, artificial intelligence, Cluj-Napoca, Bihor, university, administration, algorithms, efficiency.*

J.E.L. Classifications: C55, H61, H83, I23, O33, R58.

1. INTRODUCTION AND PROBLEM FORMULATION

The issue of institutional resilience is a central concern in the analysis of contemporary public management, articulated at the confluence of theoretical rigors and applied administrative dynamics. A question of why some institutions withstand shocks and others collapse at the first storm, although on paper they look equally solid? This is where resilience comes in.

Resilience is the capacity of a system, an organization or a person to adapt successfully, to overcome difficult moments and to return to its initial state after a shock or strong stress. The word comes from Latin, from resilire (to bounce back, to bounce back).

There are well-funded institutions that crash at the first crisis and small institutions with modest resources that find solutions in a few days. The difference, at least from what we have observed, is a certain way of learning from one's own mistakes — and the degree to which people at the top are willing to admit when the original plan no longer works.

Artificial intelligence changes the question, not just the answer. The last two or three years have brought something new to the equation. Artificial intelligence has entered universities and public institutions not as a technological fad, but as a force that rewrites job descriptions, workflows and — most often overlooked — the balance of power within the organization. Whoever controls the data and algorithms gains, willy-nilly, an influence that the official organizational chart nowhere provides.

Let's be clear from the start: we do not believe that AI, on its own, it brings resilience. On the contrary — if it is introduced over a rigid structure, with vertical communication and without real feedback mechanisms, it risks amplifying exactly the vulnerabilities it is supposed to solve. We have seen digitalization projects fail not for lack of good technology, but for lack of people prepared to use it wisely. We hope that we will never end up paraphrasing a politician who said about the case of the Romanian journalists “kidnapped” in Iraq that: “we Romanians were able to compromise the idea of international terrorism!”. And digitalization may not represent a success everywhere and always.

Here it is directly linked to one of the topics reported at the “Bogdan Vodă” University, where digitalization and the phenomena of institutional corruption are analyzed as mirrors of each other: the more a process is digitalized without a culture of quality behind it, the more doors open for abuse, not fewer (Marian, 2024, "Digitalization and Corruption"). It's an observation that I would elevate to the rank of principle: digitalization without institutional resilience can only lead to faster corruption.

2. THEORETICAL FRAMEWORK AND PILLARS OF THE MODEL

We reiterate that resilience is the capacity to adapt, to return to the initial state and to successfully overcome difficulties. Since the term comes from physics and is used in several fields,

there is no single official universal definition, but specific definitions in each field. From this daily confrontation between theory and the public procurement office, a model emerged, over time, that we also use in comparative management courses. It is not complicated, although it seems to sound too simple to be taken seriously: organizational resilience appears where artificial intelligence meets organizational learning, quality management and human leadership that does not hide behind the algorithm when hard times come.

The first pillar, organizational learning, is related to something that is taught in change management: a resilient institution is not one that never makes mistakes, but one that has a mechanism through which last year's mistake becomes this year's corrected procedure. It is not a truism. But how many institutions in the Romanian public administration actually have such a mechanism, and not just an annual report forgotten in a drawer?

The second pillar, quality management, is where half the game is actually played. We mention the research of Adrian Sorin Marian, who argued that the legal act, in the system of public order and safety, has as its foundation the very quality of the education of those who apply the law (Marian, 2024, "The Quality of Education in the System of Order and Public Safety, Foundation of the Legal Act"). This idea extends perfectly beyond the police or the judiciary: any public institution — a university included — is, ultimately, as good as the quality of the training of its people. AI can automate a bad procedure as efficiently as a good one; the difference is the quality behind the procedure, not the speed at which it runs. It is like an adaptation of the parable of the same knife that can cut bread and feed a man or it can hurt him. The moral value of the tool is not given by the tool itself, but by the man who uses it. The eight classic principles of Total Quality Management are required to be applied!

The third pillar is that of teams, and here we mention the literature on the Belbin model, as it was adapted to our institutional context. Marian asks the right question: the contemporary world is a world of teams — do we really want efficient teams, or are we content with their illusion? (Marian, 2023, "The Contemporary World Means a World of Teams. Do We Want Efficient Teams? How Do We Make Them?"). In our experience at the Department of Comparative Management, most institutions confuse the team with the meeting. They are not the same thing. A resilient team in the face of AI has clear roles, not just a physical presence in the room.

The fourth pillar, human leadership, is the one I consider, subjectively, the most fragile in our public administration. Here we strongly believe in mentoring, not in project management with

Gantt charts. It makes sense: mentoring activities in public administration, as recently documented, show exactly the role that experience transmitted directly, from person to person, has in the absorption of organizational change (Marian & Radu, 2024, "Mentoring Activities in Public Administration").

No algorithm, no matter how sophisticated, can replace a mentor who explains to you, directly, where you went wrong last year and why. This is simply how humans were created to learn, especially through direct models. In history, there have been very rare but disturbing cases of children abandoned or accidentally brought up in families of wolves or dogs and growing up imitating them.

3. METHODOLOGY AND INSTITUTIONAL CONTEXT

We could stick to the principles and the whole article would probably be just as quotable. But we think a model that doesn't pass the test of two real institutions with real problems isn't worth much — it's just a pretty diagram on a slide. So we dare to put the model face to face with something we know from the inside, not from case studies collected from the internet: the county administration in Bihor, where we have known the situation for several years, and the university environment in Cluj-Napoca, where we have been teaching for a quarter of a century. They are not chosen by chance — I think the difference between them says more about Romanian institutional resilience than some OECD reports. Both places also have a good, positive, national reputation.

Bihor and Cluj are, at first glance, two different worlds of the same historical region. Over the last decade, Oradea has relied on a more flexible local administration oriented towards rapid digitization — any city resident has seen this at the town hall counters or in online scheduling applications. Cluj-Napoca, on the other hand, is a university city par excellence, with larger, more stratified institutions and, paradoxically, sometimes not excessively fast precisely because they have several levels of decision-making. If the proposed model has any practical value, it must work — with adjustments — in a public procurement office in Oradea, and in a university senate in Cluj.

4. BIHOR: PUBLIC ADMINISTRATION UNDER THE PRESSURE OF DIGITALIZATION, SEEN FROM THE INSIDE

At APIA Bihor, where we know many of the issues, especially the application of public procurement procedures and asset management, there have been at least three waves of digitization

in recent years — from e-bidding platforms to internal contract management systems. What I noticed, and I think it is valid for all the public administration in the county, not only for the nominated institution, is that the speed of technology adoption exceeded the speed of people's adaptation every time. Not because the people are incapable—on the contrary, officials in Bihor are, for the most part, surprisingly well trained—but because training always comes after implementation, never before.

Applied to the four pillars of our model, Bihorul is remarkably good at human leadership and teams — they are small or medium-sized institutions, where the head of service really knows every file and every colleague, and informal mentoring, in a friendly discussion, works organically, almost without being called that. However, formalized quality management is much weaker: written procedures are often copied from a neighboring county and adapted hastily, without a real analysis of local specifics. Here we reiterate Marian's argument about the legal foundation of the quality of education of those who apply the rule (Marian, 2024, "The Quality of Education in the System of Order and Public Safety, Foundation of the Legal Act") — a well-trained official applying an imported procedure is much smarter than one left to fend for himself with a poorly translated user manual.

A concrete example: the introduction of e-signature and digital approval flows of purchase contracts has cut the paper processing time by almost half. But in the first months, precisely because no one had made it clear who was responsible when the system flagged an error, the blocked files piled up just like before—only now the blame was passed around, electronically, from one office to another, with no one taking responsibility. Technology wasn't the problem. It was the absence of an organizational learning mechanism that turned the first error into a corrected procedure, not into a habit of shifting responsibility.

I would also add a personal observation here, but I think it is relevant for Bihor: many of the good graduates of high schools and faculties in Oradea choose to go — to Cluj, to Bucharest or directly outside the country. It's a phenomenon that Marian analyzes, from a broader perspective, in his book about the migration of Romanians, where he shows that leaving is not only related to salary, but also to the perception of a lack of institutional perspective (Marian, 2023, "Why do Romanians emigrate?").

From our experience in the Bihor administration, this is exactly what happens at the level of public institutions: young people well trained in public procurement or in administrative IT stay for a

short time, then leave for larger institutions, usually in Cluj and Bucharest, where I think they will find a clearer career. The institutional resilience of Bihor depends, in large part, on the ability to stop exactly this drain of young talent.

5. CLUJ: THE UNIVERSITY BETWEEN ACADEMIC TRADITION AND THE PRESSURE OF INNOVATION

The university, on the other hand, has a problem of a different nature. There is no shortage of qualified human resources here — on the contrary, Cluj-Napoca constantly attracts well-trained young people, precisely those who leave Bihor or other counties.

The problem is different: university decision-making structures are designed for a much slower pace of change than the one now imposed by artificial intelligence. A new course normally goes through committees, senate, successive approvals — a healthy process for guaranteeing the quality of the teaching act, but painfully slow when, in the meantime, students are already using AI tools that the regulations do not even mention.

Applied to the four pillars, the university is very good at quality management — it is, after all, its natural field, with well-established procedures for ensuring the quality of the teaching act, exactly the area in which colleague Marian's research provides a solid foundation. But it is weaker at rapid organizational learning: a university institution generally learns correctly but slowly, and this slow speed becomes a real vulnerability when technology changes from one semester to the next. And, unlike Bihor, teaching teams are often more individualistic — each faculty member is, in a way, his or her own little decision-maker, which makes coordinating a large-scale change much more cumbersome than in an administrative office of a few dozen people.

A concrete example from our own experience at the department: in comparative management courses, last year we introduced AI tools for case analysis — students are given an institutional scenario generated or adapted with the help of AI, and then they have to identify where the model fails in the light of the theories we teach. The result was much better than I expected, but only because I built the exercise together with two other colleagues, not alone — exactly the idea of an effective team that Marian emphasizes when he asks the question of whether we really want functional teams or just the illusion of them (Marian, 2023, “The Contemporary World Means a World of Teams. Do We Want Efficient Teams? How Do We Make Them?”). A single teacher, no matter how motivated, would not have been able to anticipate as many error scenarios.

6. PRACTICAL APPLICATIONS AND SCENARIOS

What the comparison shows, beyond the obvious differences. If I put the two cases side by side, the observation that surprises me is that neither institution is resilient by design — each has a strength that the other actually envies. Bihor has close people and a functional informal mentoring, but the quality procedures lack rigor. Cluj has rigor and solid quality procedures, but the organizational learning process is too slow for the pace of AI. Neither the larger budget of a university, nor the human proximity of a small county institution alone guarantees resilience — exactly the conclusion that I had reached, by the way, since the first paragraph of this article, except that now we also have field evidence, not just intuition from the department.

A scenario, so that we don't remain in theory. Imagine a faculty that introduces an automatic evaluation system for student work, based on AI. Without organizational learning, the system will endlessly reproduce the errors in the data it was trained on. Without quality management, it will evaluate quickly, but not necessarily correctly. Without effective teams, the teaching staff will silently sabotage it, each in their own way. And without human leadership — without a dean or a department head willing to say bluntly: this automated report is wrong, we will correct it — the system will become, in two or three years, an unchallenged routine, exactly the kind of routine that destroys institutions when the next real crisis comes.

This is not a hypothetical scenario; it is, with minor variations, exactly what I saw happening with other technologies, twenty years before AI.

A second scenario, this time from the Bihor administration. So as not to stay only with the university example, I also leave a scenario from the public administration, closer to my daily office. Imagine a public procurement service in a random county — not necessarily Bihor, although it looks striking — that introduces an AI tool for pre-verifying award documentation, designed to automatically flag contradictory clauses or incorrectly formulated qualification criteria. On paper, a huge improvement: what used to take a day of rereading article by article is now done in a few minutes.

However, without organizational learning, the system flags the same ten types of errors this month that it flagged a year ago, because no one updated the internal documentation models based on the warnings received. Without quality management, officials start mechanically ticking off AI warnings without reading them, just as they often tick off standard clauses in a framework contract.

Without efficient teams, responsibility for a missed error is lost between three different offices, each convinced that someone else should have checked. And without a clear leadership at Monday's meeting on what the correct procedure is going to be from now on, the AI tool becomes, over time, just another check mark on an already long form. I've seen variations of this scenario, in smaller forms, even at the institution where I work — and, honestly, I think most colleagues in Romanian public procurement would recognize the pattern immediately.

7. LIMITATIONS OF THE MODEL AND FUTURE DIRECTIONS AND PROPOSALS

7.1. Limitations of the model: what it does not solve

It would be incorrect to present the model as a universal recipe, so we prefer to say directly where we think it does not work. It does not solve, for example, a problem of chronic underfinancing — four well-thought-out pillars do not replace a non-existent investment budget, and here I believe that any discourse on resilience that ignores the real financial constraint of the Romanian public administration is, in a way, dishonest towards those who work with minimal resources. It does not solve any problem of legislative instability — when public procurement rules change two or three times a year, any organizational learning mechanism is forced to always start from scratch, no matter how well designed.

I also believe that the model works harder in very large institutions, with thousands of employees, where the human leadership I am talking about — the one who knows the people and the files — becomes, structurally, impossible to maintain at the level of the entire organization and must be decentralized to intermediate levels, with the risk that the message will be diluted along the way. Last but not least, the model assumes a certain degree of institutional goodwill — it works hard where digitalization is used, deliberately, as a tool for stricter control, not as a tool for real efficiency. These limits do not invalidate the model; they just place it where I believe it belongs: as a diagnostic and action framework for medium-sized institutions, with a management willing to publicly acknowledge a mistake, not as a miracle solution valid wherever a new server is installed.

7.2. Concrete proposals for Bihor and Oradea

I do not believe in articles that stop at diagnosis. For the public administration in Bihor, I would propose, first of all, a form of institutionalized digital mentoring — not a one-day course, paid dearly to a training company, but an official designation, in each service, of an experienced

colleague who has, explicitly, in the job description, the task of explaining the new digital flows to colleagues less familiar with them. It costs almost nothing, compared to a new IT platform, but it solves exactly the vulnerability that I described above: the error that no one has taken note of.

Secondly, I would propose that each public institution in the county systematically keeps a register of errors (also digital) corrected in digitalized processes — not for sanctioning, but exactly the opposite, for real organizational learning.

Such a register transforms the first mistake into a better procedure for the following year, instead of burying it in a report that no one reads anymore. It seems like a small idea. From our experience in public procurement, it is precisely these small ideas, applied consistently, that make the difference between an institution that repeats the same mistake three times and one that never repeats it again.

Thirdly — and here I am addressing the local authorities in Oradea directly — I believe that stopping the departure of well-trained young people from the administration should be treated as a resilience priority, not just as a human resources issue.

A scholarship to continue one's career in the Bihor public administration, coupled with real digitalization projects that young people can lead, not just execute, would do much more than an isolated salary increase. A young person who leads, at 27 years old, the implementation of a new digital flow in an institution in Oradea has real reasons to stay; one who just fills out forms does not.

7.3. Concrete proposals for Cluj and the university environment

For the university, our central proposal is different, because the problem is different: not the lack of quality, but the speed of reaction. We would propose the establishment, at the faculty level, of short-term bridging committees — six months, not an entire academic year — made up of three or four teachers from different disciplines, with the sole role of quickly evaluating a new AI technology and proposing to the senate a provisional regulation, which can be adjusted later. Classic, permanent committees are excellent for decisions that do not change from one semester to the next; however, they are too slow for the current pace of AI.

Secondly, we would propose that each course that integrates AI tools must have at least two lecturers involved in the design of the evaluation, not just one — exactly the conclusion we reached last year, in our own comparative management course. It is not unnecessary bureaucracy; it is a direct application of the idea of an effective team, the same idea that Marian brings up when he

asks if we really want functional teams (Marian, 2023, “The Contemporary World Means a World of Teams”).

Thirdly, I believe that the university in Cluj would benefit from a formal — not just declarative — partnership with public institutions in Bihor, precisely because of the complementarity that I described above: the university brings rigor and quality procedures, the Bihor administration brings speed of adaptation and human leadership close to people. A joint training program, in which academics from Cluj teach the quality management modules, and practitioners from the Bihor administration teach the rapid adaptation and informal mentoring modules, would, I believe, be much more efficient than either of the two institutions taken separately.

7.4. How do we know if the model actually works, not just sounds good?

A more skeptical colleague asked us, at a recent conference, an awkward question: OK, four pillars, sounds coherent, but how do I, concretely, measure whether my institution has become more resilient this year compared to last year? I’ve been thinking about this question for a while, and I think the right answer is not a single indicator, but a combination of simple signals, easy to track even for an institution without its own data analytics department.

For organizational learning, the most honest indicator is the average time between the occurrence of a repeated error and the correction of the procedure that causes it — if your institution solves the same problem the third time the same way it solved it the first time, organizational learning is just a slogan on a wall.

For quality management, we would track the percentage of locally written procedures, adapted to the specifics of the institution, compared to procedures copied entirely from a general model — the higher the percentage of real adaptation, the more the quality of training of the people who apply the procedure matters more than its form.

In effective teams, the practical indicator that we use in the department is simple: how many important decisions, in a project or in a procurement file, are made and documented by a single person, without any visible contribution from anyone else? The higher the number, the more we are talking about a group of people working side by side, not about a team. For human leadership, finally, the most relevant indicator, although difficult to put into exact figures, is the frequency with which an institution leader publicly recognizes, in front of subordinates, a wrong decision and explains what changes as a result of it — not as a gesture of weakness, but precisely as proof of resilience. An institution where leaders never make mistakes, at least publicly, is an institution

that either hides mistakes or doesn't learn from them—and either is, in the long run, more dangerous than the original mistake.

None of these four signals require a special budget or an external consultant. Instead, they require something that is sometimes harder to come by: institutional honesty, a willingness to look at your own numbers without embellishing them for the annual report. I believe that this is where, not in choosing the right AI platform, it is actually decided whether an institution becomes more resilient or just more digital.

CONCLUSIONS

A European parenthesis, so as not to seem like we are reinventing the wheel. We are obviously not the first to encounter this tension between the speed of technology and the speed of the institution. Colleagues from the Faculty of Law of our university have been part, in recent years, of European projects dedicated precisely to professional training in public order and safety systems, together with partners from Germany and other states — the kind of collaboration where it is clearly seen, comparatively, how differently public institutions from different countries manage the same type of digital transition. I followed them with interest precisely because of the parallel with my own field, comparative management, where the difference between a German, a French and a Romanian administrative system is not related to technology, but precisely to the four pillars that I have described here.

What I have learned from these European experiences, even from a distance, is that digitalized professional training — online assessment modules, digital tools for testing skills — works well where it is conceived as a continuous process, not as an isolated event, once every three years, on the occasion of a funded project. It is, I think, exactly the difference between Bihor and Cluj that I described earlier, taken to a European scale: institutions that treat digitalization as a permanent learning process resist better than those that treat it as a project with a deadline and a final report.

What I actually believe, beyond the model. If you were to ask me to summarize everything in a single sentence, I would say it directly: resilience is not bought from public procurement tenders for software licenses, no matter how tempting it might be to believe this sitting on the other side of the negotiating table. Resilience is built slowly, through people who own up to mistakes, through teams that actually function as teams, and through leaders who don't hide behind an automatically generated report when things go wrong.

I believe that Bogdan Vodă University has an advantage that few similar institutions have: a presence in Cluj-Napoca, as well as natural connections with the surrounding counties, including Bihor, and solid research in both change management and organizational development, as well as quality management and public law. The model I have proposed here, tested on the two contexts that have marked my career, is nothing more than a bridge between these directions — designed to withstand, I hope, even beyond the current fashion of artificial intelligence, and beyond the administrative border between one county and another.

We do not claim that Bihor and Cluj exhaust the subject — they are just the two places that we know well enough not to write about them from hearsay. But we firmly believe that any model of organizational resilience that cannot be tested on at least two real institutions, with different cultures, remains a nice theory, good for a conference, but not much use for someone who has to decide, on Monday morning, what to do with a blocked workflow. However, the two municipalities have stood out nationally and are praised for adopting ethnic progress compared to other places.

If we were to summarize the difference between the two institutions in a single thought, we would say it like this: Bihor needs to write its rules better, and Cluj needs to rewrite them faster. This is not a criticism — it is, we believe, the most honest description of the current state of Romanian public administration and academia in the face of AI.

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PHYSICAL ACTIVITY AND COMMUNITY SAFETY: THE ROLE OF PHYSICAL EDUCATION IN FORMING PROSOCIAL BEHAVIORS

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ABSTRACT

The constant practice of sports leaves traces beyond the physical plane: it changes the way people cooperate, relate to rules and assume responsibilities towards a group. This article starts from this observation and attempts an interdisciplinary reading of the link between physical activity, education and community safety. It is a conceptual research paper, based on the analysis of literature in physical education, developmental psychology, sociology, public management and studies on the prevention of risk behaviors. A special space is occupied by the contributions of some Romanian authors who have treated these topics from complementary angles, and the analysis includes, along with the documented benefits of sports, a discussion on the limits and social risks that sports practice can generate when it is not well managed.

KEYWORDS: *physical activity; physical education; community safety; prosocial behaviors; social inclusion; risk prevention; institutional quality; social capital; adapted physical activities; cooperation.*

J.E.L. Classifications: I21, I12, I18, Z13, H41, D71

1. INTRODUCTION

Sport is no longer seen only as a source of health. More and more research treats it as an educational and social factor, with effects on individual development and the functioning of communities. Regular participation in sports activities is associated with better health, the development of socio-emotional skills and a higher level of civic engagement (WHO, 2020; Bailey, 2006; Eime et al., 2013). From this point of view, physical education goes beyond the role

of a simple school discipline and becomes part of a broader process of training active and responsible citizens.

From a sociological perspective, the link between participation in collective activities, interpersonal trust and social capital has been analyzed since Putnam (2000), who shows that involvement in organizations and community activities strengthens social cohesion and favors cooperative behaviors. Bandura (1977) adds an important piece to this puzzle through social learning theory: much of social behavior is learned through observation, interaction, and participation in shared experiences. Sport provides exactly this type of context—one in which rules, collaboration, and responsibility are learned through direct experience, not through memorization.

Bronfenbrenner's (1979) ecological model goes further and shows that a child's development is simultaneously influenced by family, school, peer group, and community. Anyone who has worked with children knows that the playgroup can, at some point, weigh more than any institutional structure. Organized physical activity is one of the few spaces where all of these levels meet and interact, contributing to both motor and social and emotional development.

In recent years, these perspectives have been complemented by research that emphasizes the role of physical activity in inclusion and in reducing social vulnerabilities. The studies of Adrian Maniu and his collaborators show that programs designed according to the particularities of children with disabilities produce benefits not only at the functional level, but also in terms of social participation and autonomy. A complementary perspective comes from the works of Adrian Sorin Marian on risk management, institutional quality and the efficiency of public systems — a field that the author of this article also knows from the inside, from the experience of continuous training specific to the public order system. These works show, in essence, that prevention works better when educational institutions, public administration and the community act in a coordinated manner, with stable mechanisms of collaboration and early intervention. Transposed into physical education, the idea suggests that well-organized sports programs can become, in turn, components of local strategies for community development and the prevention of risk behaviors.

However, the specialized literature still treats the relationship between physical education and community safety as a complex social process to a limited extent. Typically, health, sports performance and social inclusion are analyzed separately, without being integrated into a common conceptual model. This article aims to do just that: an interdisciplinary approach that relates

physical education, the formation of prosocial behaviors, institutional quality and the prevention of social risks.

From a methodological point of view, the work has a conceptual character and is based on the critical and comparative analysis of the specialized literature, being, therefore, a documentary-theoretical research, not an empirical one. The ultimate goal is to outline an explanatory model that can underpin both future research and educational and community policies oriented towards healthier, more inclusive and safer communities.

2. THEORETICAL FRAMEWORK: PHYSICAL ACTIVITY AS A FACTOR OF SOCIAL DEVELOPMENT AND COMMUNITY CAPITAL

Bailey (2006), in a broad analysis of the benefits of physical education, shows that constant participation in sports produces positive effects not only in terms of physical health, but also in cognitive, emotional and social development. Other syntheses that review research on participation in organized sports reach similar conclusions: group membership, self-esteem and interpersonal relationships are better developed, and mutual trust and cooperation between members are stimulated by this type of experience.

A plausible explanation of these mechanisms also comes from Bandura's (1977) social learning theory: social behaviors are learned by observing and imitating models in the living environment. In sports, children and adolescents constantly interact with teachers, peers and coaches, and these interactions facilitate the internalization of norms such as respect, discipline, collaboration and responsibility. Unlike other educational contexts, rules are not perceived here only as imposed obligations, but are experienced in concrete situations, in which individual success directly depends on the functioning of the group — anyone who has ever played in a team knows how quickly this lesson is learned. The “gang” can be more important than any institution. The teacher, the family and especially the group of friends together contribute to experiences that influence the child’s autonomy, self-control and social skills.

International organizations such as UNESCO (2015) and the World Health Organization (WHO, 2020) have recently expanded this perspective, emphasizing that quality physical education programs must aim not only at motor performance, but also at inclusion, active participation and respect for diversity.

In Romanian literature, the direction opened by Adrian Maniu complements and contextualizes these international results still precisely for special groups of participants. His research shows that adapted sports programs improve the functional and respiratory capacity of children with visual impairments, confirming that physical activity can become a real tool for recovery and social integration. Studies by the same team go further and analyze the relationship between the level of physical activity and the development of mindful attention, as well as behavioral self-regulation in students — relevant results, because self-regulation is one of the important predictors of school adaptation and socio-emotional development. Physical activity therefore contributes not only to the motor plan, but also to the consolidation of psychological mechanisms that facilitate social integration and stress management.

These observations are in line with the international literature on the development of socio-emotional skills through sport, but Coalter (2007) draws attention to an essential aspect: positive effects do not appear automatically, but depend on the quality of the educational intervention. Mere participation in sport does not guarantee the development of character or the reduction of risk behaviors; the results depend on how the activities are organized, on the teachers' skills and on the relational climate in the group. It is an observation that keeps the discussion away from idealizing sport and places responsibility where it should be — on the educational institutions that capitalize (or not) on this formative potential.

The role of the physical education teacher goes beyond, in this framework, the strictly technical dimension. The teacher facilitates cooperative experiences, shapes relationships between students and creates contexts in which individual success is linked to responsibility towards the group. The differences between groups are not only related to the level of motor skills, but also to the way in which mutual trust, respect and communication are cultivated — aspects that are difficult to quantify in regular school assessments, but which directly influence the educational climate.

3. PHYSICAL ACTIVITY AND PREVENTION OF RISK BEHAVIORS IN THE COMMUNITY

The prevention of antisocial behaviors remains one of the major concerns of current public policies. Institutional interventions are essential in the management of risk situations, but their effectiveness depends, to a large extent, on the preventive mechanisms developed directly in the

community. School and organized physical activity programs can become privileged spaces for the formation of prosocial behaviors and the reduction of vulnerability factors.

Consistent involvement in sports is associated with higher levels of self-control, discipline and responsibility.

Coalter (2007) points out, however, that sport reduces social vulnerabilities only when it is integrated into a coherent educational project. Participation in sports, taken in isolation, does not guarantee the reduction of risky behaviors; the effects depend on the quality of the programs, the teacher-student relationship and the educational climate of the group.

From the perspective of the management of public order systems, Adrian Sorin MARIAN develops a related idea. Analyzing the mechanisms for preventing social risks, the author shows that the effectiveness of institutional interventions depends on the ability of organizations to act proactively and build functional partnerships with the educational environment. From our experience of continuing education in the field of policing, the principle is familiar: late intervention always costs more than prevention built in time, and the same logic applies, without much modification, to community sports programs - which are no longer viewed only as an educational tool, but also as a resource for local prevention strategies and strengthening community resilience.

Consistent participation in sports fosters relationships based on trust, collaboration, and mutual respect—elements that Putnam (2000) considers fundamental to a functioning community. Physical activity does not directly eliminate antisocial behaviors, but it contributes to the formation of skills that reduce the likelihood of their occurrence.

It must be said, however, that the relationship is not univocal. The practice of performance sports shows, just as clearly, that the very same ingredients that generate cohesion—competition, hierarchy, result pressure—can also produce the opposite effects when not managed properly: rivalries that slide into aggression, forms of exclusion of the less talented, or a group culture in which the unwritten rule becomes "win at any cost." The risk of overuse injury, the mental exhaustion associated with early competitive pressure and, in more serious cases, the temptation to resort to doping are part of the same picture and should not be treated as footnotes in a discussion of the benefits of sport. A realistic prevention policy takes into account both the prosocial potential of sport and these risks, treating them as part of the same phenomenon, not as marginal exceptions.

4. INSTITUTIONAL QUALITY AND THE IMPLEMENTATION OF COMMUNITY SPORTS PROGRAMS

The concept of institutional quality is frequently used in the analysis of the performance of public organizations and refers to their capacity to provide efficient, transparent and needs-oriented services to beneficiaries. In physical education, this perspective presupposes stable programs, well-trained teachers, functional evaluation mechanisms and constant collaboration between school, family and community.

Adrian Sorin MARIAN's work on quality management in the public order and safety system provides a useful framework for understanding these processes: institutional performance is not only about the available resources, but also about the existence of coordination, evaluation and continuous improvement mechanisms. Although his analysis directly targets public safety, the principles formulated are easily transferred to community sports programs, where efficiency essentially follows the same organizational logic — something visible to anyone who has seen, from the inside, how both a performance sports structure and an institutional public order system work.

The physical education teacher occupies a central position in this process. His role is not limited to the transmission of motor skills, but includes organizing a climate favorable to cooperation, adapting activities to the diversity of students and promoting active participation. The teacher-student relationship remains one of the important predictors of school involvement and continuity of participation in sports.

Effective community programs also require collaboration between educational institutions, local authorities, sports organizations and public administration structures. Such an interdisciplinary approach allows for the optimal use of existing resources and the development of interventions adapted to the needs of each community.

Institutional quality can therefore be understood as one of the factors that mediate the relationship between physical activity and community development. It is not physical activity, taken in itself, that produces change, but the way in which it is designed, organized and supported through coherent educational and social policies.

5. SPORTS TEAMS AS SOCIAL LEARNING MICRO-COMMUNITIES

Organized sport provides one of the most appropriate contexts for understanding the mechanisms by which cooperation and collective responsibility are formed. Sports teams function as social systems in which individual performance is inseparable from the quality of relationships between group members. Anyone who has played competitively knows that a good team is not the sum of the most talented players, but the result of clearly assumed roles and functional communication — which is why many authors believe that the experiences lived in teams form transferable skills to other social contexts. The example of the French football team PSG, which did not win internationally when it had the biggest world stars at one time, Messi, Mbappe, Neymar, Di Maria, Ramos, s.a. but after they left.

In the group dynamics literature, the effectiveness of a team is explained by the complementarity of roles, communication between members, and the existence of common goals. These principles also apply in school sports, where success does not depend exclusively on individual performance, but on the ability of students to cooperate and adapt their behavior to the demands of the group.

Adrian Sorin MARIAN also develops this perspective, analyzing the functioning of effective teams in contemporary organizations and emphasizing the importance of clearly defined roles, communication and continuous evaluation. Although his research focuses on organizational management, the findings translate well to physical education, where the sports team remains a privileged environment for developing leadership, responsibility and collaboration.

However, these positive effects are not guaranteed. The specialized literature shows situations in which excessive competition, performance pressure or the exclusion of some participants produce exactly the opposite effect to the educational one pursued. From my own practice related to performance sports, the phenomenon is easy to recognize: the pressure of the result can quickly turn a cohesive group into a hostile one, especially where the responsible adult — teacher or coach — puts the competitive result before the development of the person.

6. ADAPTED PHYSICAL ACTIVITIES AND SOCIAL INCLUSION: FROM PARTICIPATION TO DEVELOPING AUTONOMY

Inclusion is one of the fundamental principles of contemporary education, and physical activity has a special place in this process. Unlike other school subjects, physical education offers

direct participation, collaboration and non-verbal communication, facilitating interactions that can reduce social barriers and foster a sense of belonging.

Documents developed by UNESCO (2015) and the World Health Organization (WHO, 2020) emphasize that equitable access to quality physical activities is an essential component of the right to education and health. Inclusion does not only mean the presence of children with disabilities in sports activities, but their active participation in an environment that respects individual differences and capitalizes on each person's potential.

The benefits of adapted physical activities go beyond functional recovery. These programs contribute to the development of personal autonomy, the strengthening of self-esteem and the improvement of social relationships — effects that directly influence the quality of life and participation in the community. Shared experiences lived within sports activities also favor the development of empathy and the reduction of stereotypes among all participants, not just those with disabilities.

In the Romanian literature, Adrian Maniu and his collaborators have made important contributions to the understanding of these mechanisms. Research on the influence of adapted sports activities on children and adolescents with visual impairments has shown the improvement of functional and respiratory parameters, demonstrating that adapted interventions produce measurable benefits on physical development.

Another relevant direction of research by Maniu and his collaborators concerns the relationship between physical activity and mindful attention.

Authentic inclusion ultimately involves the transformation of the school's organizational culture. Adapting exercises, using differentiated teaching methods, and collaborating with physical education teachers, rehabilitation specialists, and families contribute to an environment where each student can participate according to their own abilities. The success of such a program is not measured by athletic performance, but by the degree to which it succeeds in stimulating participation, autonomy, and the development of social relationships.

7. PUBLIC SYSTEM EFFICIENCY AND THE CONTRIBUTION OF PHYSICAL ACTIVITY TO THE DEVELOPMENT OF RESILIENT COMMUNITIES

In the literature on public administration and organizational management, efficiency is usually associated with the optimal use of resources and the achievement of institutional

objectives. Efficiency cannot be reduced to administrative or economic indicators. The capacity of a community to prevent social vulnerabilities, to stimulate citizen participation and to create opportunities for children and adolescents is, in turn, a dimension of institutional performance.

Adrian Sorin Marian's works on the efficiency of the public order and safety system offer a complementary perspective. The author shows that prevention is an essential component of institutional performance and that the efficiency of public systems depends on cooperation between institutions, coordination mechanisms and policies oriented towards risk anticipation.

School, local authorities, sports organizations and public administration structures do not act independently, but together form a community intervention system. The quality of collaboration between these institutions influences children's access to sports activities, the continuity of programs and their capacity to respond to the real needs of the community.

International experience shows that prevention strategies based exclusively on coercive interventions have limited effects when they are not accompanied by educational and social measures. Investments in education, health, recreational activities and the development of social capital contribute, in turn, to strengthening community resilience and reducing vulnerabilities in the long term. Organized physical activity can be considered, in this sense, a component of preventive policies, complementary to interventions specific to public order systems.

This approach does not imply attributing an exclusive role to sport in preventing antisocial behavior. Resilient communities result from the interaction of several factors — educational, economic, cultural and institutional — and physical activity is just one of these elements, the effectiveness of which depends on how it is integrated into coherent public policies and supported by the collaboration of local actors.

The contribution of physical education to community safety must therefore be understood systemically. Sport does not replace institutional interventions nor does it, by itself, eliminate the causes of social vulnerabilities. However, it creates educational contexts in which skills and social relationships are formed that can support the functioning of communities and their capacity to respond to future challenges.

8. DISCUSSIONS, LIMITATIONS OF THE WORK AND RESEARCH DIRECTIONS

The interdisciplinary perspective adopted here allows for the integration of fields that are usually analyzed separately. Contributions from physical education, developmental psychology

and sociology are complemented by research on institutional management and social risk prevention — a combination that shows that sports programs can become relevant components of community development strategies when supported by coherent public policies and real institutional collaboration.

The analysis also confirms the weight of the contributions of Romanian authors in this field. Adrian Maniu's research on adapted physical activities supports the use of movement as an educational and social inclusion tool with solid arguments, and Adrian Sorin Marian's works on institutional quality and prevention management clarify under what conditions community programs can produce sustainable effects. Put into dialogue with international literature, these contributions show that the Romanian experience can complement and nuance existing debates at the international level.

However, critical analysis of the literature shows, equally clearly, that sport should not be idealized. There are many contexts in which excessive competition, the absence of appropriate pedagogical practices or the exclusion of some participants diminish or even nullify the educational effects of sport. Beyond these pedagogical issues, the discussion should also include the broader risks associated with sports practice — from the psychological pressure on young performance athletes and the phenomenon of sports burnout, to the normalization of violence in certain contact disciplines, episodes of harassment or initiation rituals in teams, or the temptation of doping where the stakes of the result become excessive.

The early commercialization of children's sports talent, with financial and image pressures placed on the shoulders of minors, is another phenomenon that prevention literature cannot ignore. From the perspective of someone who has been active in performance sports, these risks are not theoretical hypotheses, but are part of the everyday reality of competition — which is why the success of a sports program cannot be evaluated exclusively through competitive results or quantitative indicators of participation, but also through the impact on personal development, social relationships and community climate. The results of the analysis support, overall, the need for an integrated approach.

Limitations of the paper. The present paper is conceptual in nature and is based on a critical and comparative analysis of the specialized literature, without its own empirical research. The conclusions should therefore be read as a theoretical framework intended to facilitate the

understanding of the relationships between physical activity, prosocial behaviors and community safety, not as experimental evidence of causal relationships.

Another limitation is related to the interdisciplinary nature of the topic. Physical education, psychology, sociology and public management use different concepts and methodologies, which can generate varied interpretations of the same phenomena. Integrating these perspectives inevitably involves a certain degree of generalization.

Future research directions. The results of this analysis show the need for empirical research that tests the relationships between physical activity participation, the development of socio-emotional skills, and community safety indicators. Longitudinal studies could provide relevant information about the long-term effects of sports programs carried out in school and community settings.

An important direction concerns the evaluation of the effectiveness of adapted physical activity programs in developing the autonomy and social inclusion of children and adolescents with disabilities. Comparative studies are also needed between communities with different levels of institutional involvement, in order to identify the factors that favor the implementation of sustainable sports programs.

Another area of research, which is currently insufficiently explored, should systematically document the risks of intensive sports practice — burnout, overuse injuries, excessive psychological pressure, doping — so that they can be integrated, along with the benefits, into a complete model of the effects of sports on the development of children and adolescents.

CONCLUSIONS

The paper proposes an interdisciplinary approach to the relationship between physical education and community safety, integrating perspectives from education, psychology, sociology and public management. The contributions of Romanian authors are analyzed here together with the international literature, showing the complementarity between research on adapted physical activities and that on institutional quality and prevention of social risks.

One of the central arguments of the paper is that the effects of physical activity are not automatic results of practicing sports — and, equally important, that sport is not without its own risks. Its impact, in both directions, depends on the quality of educational programs, the skills of teachers and coaches, the involvement of the family and the collaboration between community institutions. Public policies oriented towards education, inclusion and active participation can amplify the

social benefits of physical activity and, at the same time, reduce the risks associated with uncontrolled sports practice, thus contributing to healthier, more resilient and safer communities. Paraphrasing the saying "mens sana, in corpore sano", we can say that healthy communities only have healthy minds. The growth, cultivation and maintenance of these healthy and harmonious minds deserves a combination of national priorities and efforts with lasting and invariably beneficial effects.

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QUALITY MANAGEMENT IN SPORTS AND LEISURE SERVICES

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ABSTRACT

I wrote this material based on an old grievance: how rarely we treat sport and leisure as a serious business with clear procedures and responsibilities, and how often we leave it to improvisation and goodwill. Quality management doesn't need factories to work—it works just as well, perhaps even more visibly, on an ice rink or a ski slope, where a mistake is immediately visible, in a child's bruised knee or a disgruntled tourist's complaint. The text follows the idea through several strands: a lesser-known story about the Romanian roots of quality management, an honest comparison between winter sports and other economic sectors from us, the eight classic principles of quality put on anyone's understanding, some real examples — good and not so good — from Cluj-Napoca, Baia Mare and the mountain resorts of Maramureş and proposals for efficiency aimed at the legislative framework.

KEYWORDS: *Quality management, winter sports, skating, skiing, sports services, free time, Cluj-Napoca, Baia Mare, Ţara Lăpuşului, sports financing.*

J.E.L. Classifications: L15, L83, Z20, R11, H71

1. WHY QUALITY MATTER IN A SPORT AND LEISURE BUSINESS

It is well known that Romanians spend much more on foreign holidays than on domestic ones. It is estimated that Romanians spent more than ten billion euros annually abroad on vacations. There are many factors involved here, but one seems to be mentioned more often and consistently. The quality offered.

When we hear "quality management", we usually think of factories, assembly lines, an ISO certificate hanging somewhere on an office wall that no one reads anymore. It's a pity, because the basic meaning of the notion is much simpler and, I would say, much closer to everyday life than it

seems: quality is the difference between a service that turns out well once, by chance, and one that turns out well every time, because that's how it was thought from the start (**Marian A.S. 2011**).

A good instructor can save a skating class or a bad ski lesson through kindness and improvisation. But a well-designed system makes that time good even when the instructor has a cold, the ice is not perfect, the snow is gone and it's pouring rain outside. This difference matters especially in sports and leisure, where the customer cannot "return" a bad experience — he already paid, came with the children, took time off from work; if things go wrong, the only beneficiary of the lesson is the next customer, not the damaged one.

This is where the universality of quality management starts: it is not a tool reserved for industry, but a way of thinking that can be applied to any organization that offers a product or service, be it a car, a medical operation, an ice-skating lesson or a descent on skis.

What changes from one domain to another is not the principle, but the object you apply: a checklist for a refrigeration plant does not differ, in its logic, from one for a chair lift or for an industrial machine — it's just what you check that changes.

However, the subject should be all the more debated and treated seriously in the sports and leisure services because it involves the public image, the reputation that influences an entire area or branch. A highly predatory parking service in Sinaia can send your customers skiing in Austria, Bulgaria or Slovakia. The exaggerated price of umbrellas and the dirt on the beach sent Romanians to Bulgaria, Greece, Italy, Spain and more recently Albania.

2. AN UNEXPLOITATED ROMANIAN CONNECTION AND THE RESEARCH METHOD

It is worth asking a direct question: did Romania have any contribution to the birth of modern quality management? The answer is surprisingly affirmative, although the story circulates little in our country.

Joseph M. Juran, along with W. Edwards Deming, is considered one of the two “fathers” of modern quality management. He was born in 1904 in Brăila, into a family that would later emigrate to the United States. He became an engineer and, later, the author of some fundamental works — including the famous “quality loop”, a model that describes the path a product or service takes, from design to the hand of the final customer. His ideas, along with Deming's, were massively adopted by Japanese industry in the 1950s and contributed to Japan's post-war economic

reconstruction — and from there they returned, through ISO standards, to the whole world, including today's Romania.

I do not think this story should be told as a textbook curiosity, but as a very practical argument for sports students and sports facility managers: the idea of quality as a system, not as luck, is not culturally foreign to us. Its roots also touch Romanian soil, literally.

2.1. Methodological benchmark and research approach

The experience and knowledge elements acquired during the development of my thesis "Costs and social benefits in mountain tourism in Maramureș" were also decisive for this research and effort to popularize, in essence, quality management. To carry out this work, we opted for a mixed methodology, predominantly qualitative, designed to unite the theoretical framework of quality management with the realities on the ground in the sports and leisure sector.

The analytical approach was carried out on three complementary levels:

• Documentation and content analysis: We re-evaluated the applicable regulatory framework (ISO 9001 series standards, national regulations in the field of sports and public administration), as well as the specialized literature dedicated to public management and risk.

• Comparative case study: We selected and analyzed sports facilities and leisure projects from large urban agglomerations (Cluj-Napoca, Sector 4 Bucharest), medium-sized urban centers (Baia Mare) and mountain or rural destinations (the resorts of Maramureș and the micro-destinations of Țara Lăpușului). The selection criteria targeted the diversity of ownership forms, management models and operational vulnerabilities.

• Direct observation and secondary data analysis: Information on the condition of the infrastructure, customer flow, and litigation history was collected by consulting local and national press reports, institutional releases, as well as through direct on-site assessments conducted during 2020–2026.

3. COMPARISON WITH OTHER COUNTRIES — AND WITH OTHER SECTORS IN ROMANIA

3.1. Landmarks regarding the situation in the West

In many clubs and leisure complexes in Romania, quality remains a formality — an opinion from the Public Health Directorate, an ISU authorization, a paper from ANPC — not a daily philosophy. Rarely does a gym or rink manager measure customer satisfaction in numbers: how

many customers return, how long they wait at the checkout, how many incidents are reported in a month.

In Western Europe and the United States, the same things are part of the organization's governance—written safety procedures, periodic internal auditing, continuous feedback—and quality certification often becomes a condition for advantageous commercial insurance.

The difference is not necessarily about money. It costs just as little to put a daily ice or cable check list on a wall as it does to not put it up—the only difference is if someone decides it's worth the time to write it and, most of all, stick to it.

3.2. Sport and free time, face to face with other Romanian sectors

It is instructive to put sports and leisure alongside sectors that have already gone through this path. The car industry in Argeș, Cluj or Timiș has been forced by the big companies to adopt strict quality standards (**IATF 16949**) since the 90s — not out of conviction, but because otherwise they would not receive orders. The result: today, a worker in an auto parts factory works under stricter quality procedures than the manager of a private sports center in the same city. The IT and BPO industry was quick to copy Western client standards (data security, documented processes) simply because it could not work with them otherwise. HoReCa has been pushed towards a kind of "public pressure" quality management — review platforms immediately punish any fall in standards.

Sports and leisure do not yet have this mechanism as developed, although online reviews are starting to play a similar role.

The conclusion is simple: the Romanian sectors that embraced quality management did not do so out of philosophical conviction, but because someone from the outside—a big client, a platform, a law—forced them. Somewhat despite appearances, quality management is also quite present in public order and safety structures, both in the Police and in the Gendarmerie and in the fire brigade (**Marian & Bunea 2012**). Sports and leisure do not yet have this "outsider" as present, which means that managers who choose quality themselves have a real edge, not just an image one.

4. A PROBLEM SO IMPORTANT THAT IT MUST BE “TRANSLATED” TO EVERYONE

To avoid remaining just textbook terms, here is the simplest possible explanation that anyone can understand:

Quality management means doing things right the first time, repeatedly, not by luck — and, when something goes wrong, not being satisfied with fixing it once, but making sure it doesn't happen again.

It's a bit like having a good food recipe and writing it down, step by step, for your children, instead of hoping that each one of them will, by chance, get the same proportions as you. A written recipe doesn't guarantee culinary genius, but it does guarantee a consistent result that anyone can learn and repeat.

Three simple questions sum up the whole philosophy, whether we're talking about an ice rink, a ski slope, or a holiday camp: What happens here, the same every time? Who is responsible if it doesn't happen again? What do we do, specifically, to prevent a problem from happening again? If you can clearly answer all three, you already have a functional quality system — even if you've never heard of ISO 9001 (an international standard that sets the requirements for a quality management system (QMS), helping a company provide good products and services, satisfy customers, and constantly improve (**Marian, 2011**).

Why does it matter? Because a parent who brings their child to the ice or snow evaluates not only how well the instructor skates or skis, but also whether the ice is free of holes, whether the chairlift is checked, whether the locker room is clean, whether there is a clear plan in case of a more serious fall. All of this is quality — not marketing, not luxury, but minimum decency conditions of service, the lack of which is immediately visible in the business's reputation.

5. THE EIGHT PRINCIPLES OF QUALITY MANAGEMENT, PUT ON ICE AND SNOW

The classic form of the ISO standard formulated eight principles of quality management. They remain a good tool for thinking, even though more recent editions have regrouped them into seven (**Marian A.S. 2026**).

Here's what each looks like, translated into a winter sports business — rink or slope alike:

1. Customer orientation

The customer of a skating lesson or a ski pass is not a "passerby". There is a parent who wants the child safe, an adult who is looking for exercise without injury, a tourist who wants a beautiful memory. Being customer-centric means periodically asking — via a short form, a QR code, a straight talk — what went well and what didn't, instead of assuming you already know.

2. Leadership

The one at the top sets the tone. If the patron personally checks the ice in the morning or goes up the slope himself to see the snow condition, the employees will do the same. If management is absent, any written procedure remains a dead letter. From a managerial perspective, leadership in sports and leisure services should not be reduced to a simple physical presence on the field or to current administrative management. In modern organization theory, we talk about transformational leadership and leading by example. In spaces with high operational risk (such as ski slopes or ice rinks), the leader is the one who builds a safety culture.

When senior management personally prioritizes the rigor of technical checks over immediate short-term profit, the signal sent to the team is that quality and user safety are non-negotiable. Effective leadership formulates the quality policy and provides the necessary resources so that the procedures are not perceived by employees as unnecessary bureaucracy, but as a shield of institutional protection. (**Marian, Risk management, 2026**).

3. Staff involvement

Instructors, cashiers, chairlift or ice machine operators are the first to notice a problem — a hole in the safety net, a slippery area, an aggressive skater or skier. They need a simple reporting channel without fear of repercussions. At one point, the BBC television channel reported that with the establishment of the famous Turkish resort of Antalya, 750 million dollars were spent on staff training. An amount that saves us from other motivating explanations.

4. The process-based approach

Instead of treating each day as an isolated case, you think of the rink or slope as a chain: opening and checking, ticketing, equipment rental, supervision, maintenance, closing.

Each link has a person in charge and a clear way of doing it. The process-based approach involves decoupling service performance from chance or the simple individual goodwill of staff.

In leisure services, the process represents a logical sequence of interconnected activities – from receiving the client and equipping him, to supervision on the sports surface and intervention in the event of an incident.

5. The systemic approach

Ice or snow, facilities (fridge, chair lift, snow cannon), staff, tickets and marketing are not separate things. A failure in the cable installation directly affects safety, which affects reputation, which affects next year's sales.

6. Continuous improvement

After each season, a serious business should ask itself what accidents or complaints it has had and what it can change: the schedule of the series, the number of supervisors, the type of protections on the slope. It is the most succinctly described principle, but it has extraordinary significance and long-term effects and explains the success of the field in Baia Mare or Cluj, but also the regression of some famous areas at another time - the Romanian coast, some traditional resorts (**Băile Herculane, Vatra Dornei, resorts from Secuime**).

7. Fact-based decision-making

Instead of deciding "on the fly" how many instructors are needed or at what time the ice or slope is crowded, you note, for a few weeks, the tickets sold per hour and decide based on these figures. Fact-based decision-making shifts the management paradigm from empirical intuition to analytical rigor anchored in real data. In mountain tourism and winter sports, data-based decisions prevent both waste of resources and exposure to risk.

This involves the systematic collection and continuous analysis of two categories of indicators:

1. Operational and safety data: frequency and typology of incidents/accidents per hour, peak hours of occupancy, average waiting time at the box office or at cable car facilities.
2. Perception data (beneficiary feedback): assessing the degree of satisfaction through quick tools (QR surveys, sentiment analysis on review platforms).

Basing decisions on concrete data allows for dynamic adjustment of the number of instructors or supervisors, reconfiguration of the maintenance schedule of sports surfaces, and optimization of operating costs.

8. Mutually beneficial relationships with suppliers

The company that maintains the refrigeration plant or the chairlift, the one that sharpens the skates, the one that insures the building — all are quality partners, not just bills to pay.

A stable relationship is worth more over time than the cheapest bidder of the moment.

6. STEP-BY-STEP IMPLEMENTATION IN A WINTER SPORTS BUSINESS

An entrepreneur starting or already running an ice rink or a small ski slope does not need a quality department like in a factory. He needs a few simple tools, applied with discipline, not additional bureaucracy.

The most handy is a “daily log” — a notebook or a simple digital form, in which, every morning, someone checks the condition of the ice or snow, the functioning of the facilities, the condition of the protective nets and rental equipment, the presence of a first aid kit. Five minutes a day prevents hours of problems.

The second tool is a risk log, not just insurance. Insurance covers damage after it has occurred; the log helps you prevent it. For winter sports, typical risks are falls by beginners, collisions during rush hour, slips outside the ice or snow, equipment failures, overcrowding beyond safe capacity. For each one, write down how you prevent it, who is responsible, and what you do if it does happen.

The third is about people: these businesses often operate with seasonal staff, young people with no previous experience, hired for a few months. This is where quality is most often lost, because each season they “start over” without a written transmission of the lessons of previous seasons. A simple training sheet, given to new employees on their first day, costs little and prevents a lot.

Finally, customer feedback doesn’t have to be complicated. A QR code at the exit with three questions — how was the ice or snow, how was the staff, would you recommend it to a friend — provides a much clearer picture in a few weeks than the owner’s subjective impression.

7. REAL EXAMPLES WORTH LEARNING FROM

7.1. A good administration-sport collaboration: the skating rink in Sector 4

A good example of successful collaboration between the local public administration and the world of ice sports comes from Bucharest: the City Hall of Sector 4 built, in collaboration with the Romanian Ice Hockey Federation, an indoor ice rink, with money from the local budget, after completion the investment will be handed over free of charge to the federation, for the training of performance athletes and for competitions. It's a simple model, but rarely found in our country: the administration assumes the investment cost, and the national sports structure ensures the know-how, the competition calendar and continuity, without the town hall turning itself into a sports operator. This kind of partnership would also be interesting at the level of a small or medium-sized city, adapted to scale — not necessarily an Olympic ice rink, but a seasonal base, built by the mayor's office and managed by a local structure.

7.2. Cluj-Napoca: a stable private model, a seasonal public one and a lesson to avoid

In Cluj-Napoca, a large private ice rink has been operating for more than a decade, set up in the parking lot of a hypermarket — a business model that has proven to be sustainable in the long term, with a constant schedule and affordable rates. In parallel, the municipality organizes, during the holidays, a public skating rink in the central area and one on the set of the Sports Hall, integrated into the Winter Fair. The coexistence of the two shows that there is not one correct recipe, but at least two distinct markets: the private rink customer pays for a consistent experience year after year, while the Winter Fair visitor comes for the festive atmosphere, not necessarily the performance.

The existence of several quality skating rinks cultivates an audience that will get used to using these facilities, they are not competitors, they support each other in forming a more numerous and stable clientele. Poisoning a child at one of the rinks with bad food, or not being able to take emergency action will be a stain with long-term effects on an entire field.

Also in Cluj we find a less pleasant but useful lesson. An ice rink in the Mărăști neighborhood, once built and managed by a private company under a contract with the Autonomous Public Domain Authority, ended up, after the termination of the contract, in a dispute that lasted for a decade in the courts, resulting in compensation of hundreds of thousands of lei paid by the public institution to the former operator for its investments and equipment.

Beyond the legal aspects, the case is a direct lesson in contractual risk management: any public-private partnership for a seasonal sports base — ice rink, slope, beach — must clarify from the start, in writing, what happens to private investments in the event of termination and who owns the equipment. The lack of these clarifications can cost not only money, but also whole years of blockage (**Marian A.S. 2026**).

7.3. Baia Mare: a local-county partnership that recovers its costs

Baia Mare organizes, through the **"Băimăreană Winter"** event, held in partnership between the town hall and the Maramureș County Council, several seasonal ice rinks, one of which is right in the old town center. The financial model used — the partial recovery of costs from sponsorships and the rental of commercial spaces in the perimeter of the event — is useful for any small or medium-sized municipality interested in developing such a seasonal infrastructure without considering it a pure cost from the local budget.

The large number of participants speaks for itself both about the quality offered and about the inspiration of the authorities who initiated such collaborations.

7.4. Not just skating: skiing in Maramureș, an already consistent field

It would be a shame to talk about winter sports in the area and stop only at the ice — Maramureș actually has a serious skiing area, with three resorts less than an hour from Baia Mare. In Cavnic, the SuperSki, Roata and Icoana complexes operate, with slopes totaling almost six kilometers, served by chairlifts and ski lifts, plus a tubbing slope for non-skiers.

At Șuior, the slopes add up to 3.6 kilometers, with artificial snow installed at night on a good part of the route and a conveyor belt dedicated to beginners and children — a quality detail in itself, precisely thought out for the safety of the most vulnerable customers. The Izvoare resort, at the foot of Vârful Igniș, is also being renovated, with slopes complemented by guided horseback rides, a relaxing alternative to skiing, suitable for families — proof that the two worlds, of mountain sports and horse riding, can coexist naturally in the same place, under the same management umbrella.

From the perspective of quality management, all three resorts already offer the basic elements — approved facilities, ski monitors present on the slope, rental equipment — but exactly here there is room for more: a common incident reporting system between the three resorts, a daily published checklist (not just internal), and a closer collaboration with local authorities for the joint promotion of the "Maramureș ski area" as a single tourist brand, not as three competing resorts.

8. WHAT LEGISLATION COULD DO FOR THESE BUSINESSES

Small operators in sports and leisure — skating rinks, small slopes, horse riding centers, mineral spring lookout points — often encounter an approval system (DSP, ISU, ITM, ANPC, environmental permits) designed more for large units, with fixed compliance costs, similar regardless of the size of the business (**Marian 2026**).

For a seasonal business, operating three to four months a year, these costs weigh disproportionately compared to a permanent base. Several directions deserve, I believe, serious discussion by decision-makers.

● A simplified authorization regime for seasonal facilities (skating rinks, tubing tubes, small slopes), with a standardized checklist instead of multiple and redundant approvals.

● Tax incentives for operators who voluntarily obtain a quality or safety certification — a "bonus" for those who exceed the legal minimum, not just sanctions for those who do not reach it.

● Extension of the Register of Approved Sports Facilities, administered by the Ministry of Sports, to temporary seasonal facilities, accessible to the general public.

● Framework contracts for public-private partnerships on seasonal sports facilities, developed by the ministry or by associations of city halls, precisely to avoid situations like the Mărăști skating rink dispute.

● Specific support for the exploitation of small but valuable natural resources — mineral springs, trails in protected areas — through funds dedicated to tourism micro-infrastructure at the commune level, not just large investments.

None of this necessarily requires new laws, but rather better coordination between the institutions that currently separately control the same business, and a real proportionality between the size and duration of a business and the compliance costs imposed.

9. BENEFICIARIES AND DECISION-MAKERS

There are several categories of beneficiaries. For entrepreneurs, the simple system described above can be put into practice in a few days, without expensive consultants, and directly reduces the risk of accidents, claims and unforeseen expenses — exactly the costs that erode the margin of a seasonal ski or skating business.

Instructors, physical education and sports teachers, the framework of the eight principles provides a common language between the world of management and the world of sports, useful both in the classroom and in organizing their own competitions or camps.

For students of the Faculties of Physical Education and Sports, but not only, the examples in this material — the ice rink in Mărăști, Fiesta Sport, the collaboration of Sector 4 with the Hockey Federation, the Cavnic, Șuior and Izvoare resorts, the borcut in Poiana Botizii — can become starting points for undergraduate or dissertation papers related to verifiable case studies, not abstract literature.

In the most important group, the decision-making one, for local administrators, the models from Bucharest, Cluj-Napoca and Baia Mare show different ways, all functional, to bring recreational infrastructure without assuming all the financial risk from the local budget — through a stable

private operator, in connection with a seasonal partnership with partial cost recovery or through a collaboration with a national sports federation.

10. AVAILABLE FUNDING PROGRAMS AND PROJECTS

For those interested in developing or modernizing a sports or recreational infrastructure, there are currently several active funding directions in Romania, useful both for local authorities and, in certain schemes, for private operators or sports clubs.

● The National Investment Company (CNI), under the Ministry of Development, Public Works and Administration, runs national investment programs in sports facilities, gyms and sports complexes — one of the main ways through which a city hall can obtain funding for permanent infrastructure.

● The Ministry of Sport, through the National Agency for Sport, annually finances public utility sports programs and national federations, and the legislation was recently amended to allow the financing of private children and youth clubs, not just public structures.

● The European Erasmus+ Sport program finances cooperation and capacity building projects in the field of sport, including for small clubs and local organizations, with a focus on social inclusion and education through sport.

● The European Structural and Cohesion Funds, through regional programs, can finance, in certain programming cycles, tourism and leisure infrastructure at local level — including facilities related to mountain tourism, health or protected areas.

The practical recommendation for an interested entrepreneur or mayor remains simple: the first step is not to write the project, but to directly check, on the official websites (sport.gov.ro for the Ministry of Sports, cni.ro for the National Investment Company, the erasmus-plus.ec.europa.eu portal for European funding), the lines opened in the current year, because these programs change from one year to the next.

CONCLUSIONS

Quality management in sports and leisure is not a conceptual luxury artificially imported from other sectors — it has, as the story of Joseph Juran shows, a very Romanian root, too often forgotten.

The transfer of ideas from more "disciplined" sectors to winter ice and snow does not require huge investments, but discipline and consistency: a daily checklist, a risk register, a training sheet for seasonal staff and simple feedback from customers can make the difference between a business that lasts ten winters and one that dies after the first difficult season. Of course, this requires effort, resources, time and perhaps that is precisely why it is appropriate, in the spirit of the popular proverb, to prepare the winter business from the middle of the year. Otherwise, quality could not be ensured and this shows its effects over time.

Real examples — from the collaboration of Sector 4 with the Hockey Federation, in Cluj-Napoca, Baia Mare and the mountain resorts of Maramureș — show that the Romanian market has already experimented with several models, each with its own lessons, including the painful one of a decade-long litigation.

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CRIMEA, UKRAINE, IRAN. THE EUROPEAN DIMENSION OF AVIATION SECURITY

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ABSTRACT

The need to make progress, improve security policies, and enhance global aviation security has been a priority for this sector, spanning industry, economic development, mobility, and scientific research.

The constant evolution of public policies, involving the assessment of existing ones and the emergence of a need for new, modern policies capable of responding to changing inputs, has prompted nations and international organisations to collaborate with industry specialists on their development.

The growing interdependence among nations and the technical nature of certain fields have necessitated the identification and establishment of coordinated, harmonized actions at both global and regional levels.

The states comprising these intergovernmental international organizations have played and continue to play a significant role, both in drafting constituent instruments and in adopting documents issued within the organization; such documents become operational only after ratification by a specific proportion of member states. By accepting and ratifying the constituent instruments of intergovernmental international organizations, member states enable these organizations to "act" as legal entities under domestic law.

Addressing this subject is relevant for highlighting the influence civil aviation currently has on diplomatic and military affairs, given its potential to play a n very important role at any moment.

Whether considering the situation in Crimea, Ukraine, or Iran, or focusing on identifying best practices for international cooperation in civil aviation and adjusting public policies, this analysis is both compelling and necessary.

KEYWORDS: *aviation, security, Europe, airspace, safety.*

J.E.L. Classifications: L93, R41, H56, F55.

INTRODUCTION

Given the specific nature of the topic, its international significance, the allocated resources, the bodies involved, and the anticipated expectations, I consider this subject to be of particular importance, distinctive, innovative, and bold especially since the available bibliographic resources and specialized literature lack significant diversity.

The data and information resources available, accessible in both physical and electronic formats, consist primarily of regulations, laws, and official reports from international and national bodies. An analysis of these materials, combined with an in-depth study aimed at formulating concrete outputs, is imperative, at least at the national level.

Engaging with subject-matter experts, experienced representatives, and members of relevant authorities to gather viewpoints, forecasts, medium- and long-term visions, and legislative requirements is essential; the findings will be presented in a structured manner to serve as the foundation for and support the scientific research.

The United States took the initiative to explore the need to bring the world's major powers together to formulate public policies for aviation, aimed at protection against terrorist threats and other risks.

The invitation extended to 52 nations for the 1949 Chicago Convention introduced a novel approach to civil aviation: the pursuit of standardized regulations, procedures, and organizational structures in response to the post-World War II landscape.

The imperative to advance, improve security policies, and enhance global aviation security became a priority for this sector which is vital to industry, economic development, mobility, and scientific research.

The constant evolution of public policies involving the assessment of existing measures and the need for new, modern ones capable of addressing emerging demands prompted nations and international bodies to collaborate with industry specialists on their development.

None of these efforts would have been possible without a diplomatic approach rooted in communication, relationship-building, and a commitment to identifying and addressing the sector's needs.

CRIMEA, UKRAINE, IRAN. THE EUROPEAN DIMENSION OF AVIATION SECURITY

1. A view of aviation security

European aviation security must today be analysed through a broader logic than the purely technical one. In the past, the main emphasis fell on flight safety, on maintenance, on crew training, on air traffic control and on the prevention of accidents caused by operational errors or technical failures. After 2014, this approach is no longer sufficient. The Crimea crisis, the downing of flight MH17 in eastern Ukraine, the Russian invasion of 2022 and the downing of flight PS752 in Iran have shown that civil aviation can be directly exposed to military, political and diplomatic risks. For this reason, European aviation security must be understood as a domain in which safety, security, strategic intelligence, international law and civil-military cooperation directly influence one another (European Parliament & Council of the European Union, 2018; ICAO, 2023).

Crimea represents the first major moment of this transformation. After the annexation of the peninsula by the Russian Federation in 2014, control over the airspace of the Simferopol flight information region became contested. The problem was not only political. It produced a concrete operational risk. The FAA showed that the Russian Federation had attempted to unilaterally establish a new flight information region within the Simferopol FIR, while Ukraine continued to be recognised as the air traffic service provider for that airspace. Under these conditions, civil aircraft could receive contradictory instructions from different air traffic service providers. The FAA considered this situation a danger to civil flights and prohibited certain operations by U.S. operators in the affected area (Federal Aviation Administration, 2014).

The Crimea case shows that sovereignty over airspace is not an abstract problem. For civil aviation, it has direct consequences for route planning, for air-ground communications and for the way crews interpret the instructions they receive. The FAA emphasised that

contradictory instructions coming from Ukrainian and Russian providers could create confusion in the cockpit. More seriously, following the instructions of one of the parties could lead to a civil aircraft being wrongly identified as a threat by the other party (Federal Aviation Administration, 2014). Thus, Crimea became a clear example of the link between territorial conflict, air traffic control and aviation security.

The downing of Malaysia Airlines flight MH17, on 17 July 2014, amplified this problem. The Boeing 777 aircraft was flying from Amsterdam to Kuala Lumpur and was shot down over eastern Ukraine. The Dutch Safety Board report established that the aircraft was struck by a 9N314M warhead launched by a Buk surface-to-air system, which detonated to the front and left of the cockpit. All 298 people on board died (Dutch Safety Board, 2015). This case demonstrated that a civil aircraft at cruising altitude can be vulnerable when flying over a conflict zone in which anti-aircraft systems capable of reaching high altitudes are present.

MH17 changed the way Europe views overflight of conflict zones. The Dutch Safety Board showed that, before the accident, many air operators implicitly assumed that open airspace is safe airspace. This assumption proved to be wrong. If the responsible state does not close the airspace, operators must nonetheless independently assess the overflight risk. The Dutch Safety Board recommended improving the exchange of threat information, more rigorous risk assessment and greater attention to the evolution of the military conflict on the ground (Dutch Safety Board, 2015). In the 2019 follow-up report, the same institution showed that after MH17 states and airlines began to pay more attention to conflict zones, and operators moved to more structured risk assessments (Dutch Safety Board, 2019).

The European institutional response to MH17 led to the strengthening of EASA's role in managing risks arising from conflict zones. Regulation (EU) 2018/1139 provides, in Article 88, for cooperation between the Commission, EASA and the Member States when there are interdependencies between civil aviation safety and security. The same article allows EASA to disseminate information and recommendations regarding risks to civil aviation arising from conflict zones (European Parliament & Council of the European Union, 2018). On this basis, EASA publishes CZIBs, Conflict Zone Information Bulletins, and information notes for operators. These do not replace the responsibility of operators, but they provide a common European framework for identifying and communicating risks (European Union Aviation Safety Agency, 2016; European Union Aviation Safety Agency, n.d.).

The Russian invasion of Ukraine on 24 February 2022 transformed regional risk into a systemic problem for European aviation security. EASA published CZIB-2022-01R13 for the airspace of Ukraine, in which it mentions the Lviv, Kyiv, Dnipro, Simferopol and Odesa FIRs as affected airspace. The bulletin indicates that these regions are closed to civil flights and that the affected airspace must be treated as an active conflict zone. EASA points to risks of intentional targeting, misidentification and the use of ground and airborne combat systems capable of affecting civil flights at all altitudes (European Union Aviation Safety Agency, 2026a).

The war in Ukraine has produced effects beyond Ukraine's borders as well. EASA issued a separate bulletin for the airspace of the Russian Federation, in particular for the area located west of longitude 60° East. In this document, EASA shows that the activation of Russian anti-aircraft defence systems, in response to Ukrainian missiles and drones, can affect civil flights, including in the vicinity of international airports. The document also mentions the risks of GNSS jamming and spoofing, especially in areas close to the conflict and in areas targeted by drone attacks (European Union Aviation Safety Agency, 2026b). This element is important for Europe because interference with satellite navigation directly affects route safety, positioning accuracy, approach procedures and the ability of crews to maintain an accurate picture of the aircraft's position.

The legal and diplomatic dimension of the MH17 case complements the operational dimension. The criminal investigation was carried out by a Joint Investigation Team made up of the Netherlands, Australia, Malaysia, Belgium and Ukraine. The Public Prosecution Service of the Netherlands states that this team investigated the persons involved in the downing of flight MH17 and that several suspects were prosecuted (Netherlands Public Prosecution Service, n.d.). In 2025, the European Court of Human Rights found, in the case of Ukraine and the Netherlands v. Russia, that Russia was responsible in the context of the conflict in Ukraine and in connection with the downing of MH17, including through the absence of an effective investigation and through non-cooperation with international proceedings (European Court of Human Rights, 2025).

Iran introduces another dimension of aviation security: the risk produced by rapid military alert and by the misidentification of civil aircraft. On 8 January 2020, Ukraine International Airlines flight PS752 took off from Imam Khomeini Airport in Tehran bound for

Kyiv. The final report of the Aircraft Accident Investigation Board of the Islamic Republic of Iran shows that the aircraft was misidentified by an anti-aircraft defence unit near Tehran, and two missiles were launched at it. All 176 people on board died (Aircraft Accident Investigation Board of the Islamic Republic of Iran, 2021). The report states that the aircraft was operated by a qualified crew, was under Iranian air traffic control and had received take-off clearance after coordination with the military sector (Aircraft Accident Investigation Board of the Islamic Republic of Iran, 2021).

The PS752 case is relevant to European aviation security even though the accident occurred outside Europe. The aircraft belonged to a Ukrainian operator, the passengers held several citizenships, and the lessons concerned the entire international civil aviation system. The Iranian report formulated recommendations regarding the distribution and collection of information, risk assessment and the application of protective measures when military activities may endanger civil aviation (Aircraft Accident Investigation Board of the Islamic Republic of Iran, 2021). Canada criticised the responsibility of the Iranian authorities and emphasised the consequences of the civil and military decisions that allowed flights to be operated in a context of heightened military tension (Government of Canada, 2021).

The link between PS752 and the European aviation security system is also seen in the way EASA treats the airspace of Iran and the Persian Gulf region. In CZIB 2026-03-R14, EASA recommends that operators not operate in the airspace of Iran, Iraq and Lebanon at all altitudes and flight levels. The document mentions the high state of alert of Iranian air defence and the increased probability of misidentification in the Tehran FIR. EASA recommends continuous monitoring, updated risk assessments and contingency plans for operators flying in the region (European Union Aviation Safety Agency, 2026c).

ICAO provided the international methodological framework for this approach through Doc 10084, the Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones. The manual explains risk management processes, threat assessment, mitigation measures, the closure or reassessment of affected airspace and examples of good practice for states and industry (International Civil Aviation Organization, 2023). For Europe, this manual is important because it provides a common language between authorities, operators and international bodies. It enables the move from isolated reactions to a standardised process of identifying, assessing and reducing risks in conflict zones.

The European dimension of these cases lies in the European Union's capacity to transform tragic experiences into operational mechanisms. Crimea highlighted the risk of contested air control. MH17 highlighted the risk of overflying a conflict zone in which high-performance anti-aircraft systems are used. The war in Ukraine extended the risk to the regional level and introduced additional problems, such as airspace closure, diversionary routes, the activation of anti-aircraft defence and GNSS interference. PS752 showed that a civil aircraft can be shot down even in open airspace, when civil-military coordination fails and anti-aircraft defence operates under pressure. Together, these cases show that European aviation security can no longer be separated from geopolitics, diplomacy and strategic risk management.

Crimea, Ukraine and Iran must be treated as markers of a structural change. In all three situations, the aviation risk did not arise from an isolated aircraft malfunction. It arose from conflict, from a lack of coordination, from contested air control, from the use of military systems and from the incomplete communication of threats. The European response, through EASA, the European Commission, the Member States and the mechanisms of joint assessment, confirms that modern aviation security must be built on up-to-date information, international cooperation, documented risk assessments and rapid decisions concerning airspace (European Union Aviation Safety Agency, 2016; European Union Aviation Safety Agency, n.d.; International Civil Aviation Organization, 2023).

2. Airspace in Conflict Zones

Military conflict generates direct and indirect risks for civil aviation, through the militarisation of airspace, the activation of anti-aircraft defence systems, the degradation of civil-military coordination and the increased probability of misidentifying civil aircraft.

Airspace in conflict zones is one of the most sensitive themes of contemporary aviation security. In a normal operating regime, airspace functions as invisible infrastructure for mobility, trade, tourism, logistics and international connectivity. In an armed conflict, the same airspace becomes a zone of risk. It can be contested, fragmented, militarised, closed, jammed, or used simultaneously by civil aircraft, military aircraft, anti-aircraft systems, missiles and drones. For this reason, the analysis of airspace in conflict zones must go beyond the technical approach of air traffic management. It must include the assessment of military risks, the

responsibility of states, civil-military coordination, the exchange of information and the ability of air operators to make rapid decisions.

The International Civil Aviation Organization treats operations over or near conflict zones as a distinct risk-management problem. ICAO (2023) shows that states and operators must assess threats, apply risk-reduction measures and decide, when the situation requires it, to close or avoid airspace. The ICAO Doc 10084 manual is important because it shifts the analysis from the simple question "is the airspace open?" to the correct operational question: "is the airspace sufficiently safe for civil aviation?" (International Civil Aviation Organization [ICAO], 2023).

In conflict zones, legally open airspace is not necessarily operationally safe airspace. This principle became evident after the downing of Malaysia Airlines flight MH17, on 17 July 2014. The Dutch Safety Board (2015) showed that the existing system of responsibilities did not produce an adequate assessment of risks for civil flights crossing eastern Ukraine. In its follow-up report, the Dutch Safety Board (2019) emphasised that the recommendations issued after MH17 addressed three directions: airspace management, the exchange of threat information and risk assessment. These three directions still define the core of aviation security in conflict zones today.

A first characteristic of airspace in conflict is the loss of predictability. In peacetime, the planning of an air route is based on cost, distance, wind, sector capacity, overflight charges and published restrictions. In conflict, the operator must include in the decision risks that are not always visible in standard aeronautical data. Ostroumov, Ivannikova, Kuzmenko and Zaliskyi (2025) show that the closure of volumes of airspace forces operators to reconfigure aircraft trajectories, which increases route length, flight time, aircraft costs and the final price borne by passengers. Their study treats the Russo-Ukrainian war as a case of structural modification of the global air transport network, not as a mere regional disruption.

In this sense, airspace in conflict zones produces safety effects and economic effects simultaneously. The primary risk concerns the lives of passengers and crews. The secondary risk concerns the viability of transport networks. When a zone closes, traffic does not disappear completely. It moves to other corridors, increases the load on the sectors that remain open, increases the distance travelled and can produce imbalances between airlines. Ostroumov et al. (2025) show that Ukrainian airspace was closed to any civil use from 24 February 2022, and

that the airspace of the Russian Federation and Belarus became restricted because of sanctions and military risk. The authors include in the same risk category airspace in the Middle East, such as Afghanistan, Iran, Iraq, Syria and Yemen, where armed conflicts or military instability maintain a high risk for civil aviation.

The war in Ukraine offers the clearest recent example of the closure of a large-scale airspace. EASA (2026a) indicates that bulletin CZIB-2022-01R13 for Ukraine remains active and refers to the Lviv, Kyiv, Dnipro, Simferopol and Odesa FIRs. This confirms that Ukrainian airspace continues to be treated as a conflict zone for civil aviation. In practice, the closure of these FIRs forces airlines to redesign the Europe-Asia, Europe-Caucasus and North America-Asia connections. EASA recommends that operators avoid airspace in which military systems, missiles, drones or anti-aircraft defence can generate misidentifications or attacks on civil aircraft.

The notion of FIR is central to this subchapter. A flight information region is not merely a delimitation on a map. It defines responsibilities for flight information, alerting and coordination services. In the context of Crimea, the problem of the Simferopol FIR demonstrated that a dispute over territorial control can produce direct operational confusion. The FAA (2014) prohibited certain U.S. civil aviation operations in the Simferopol FIR because aircraft could receive contradictory instructions from Ukrainian and Russian air traffic service providers. This situation shows that contested airspace can become dangerous even before an actual attack on an aircraft occurs.

The Crimea case shows the link between sovereignty, air control and safety. If two authorities simultaneously claim the ability to provide air traffic services in a given airspace, crews may receive conflicting instructions. In a situation of military tension, confusion can lead to misidentification, to uncontrolled deviation or to entering an airspace where one party considers the aircraft unauthorised. The FAA (2014) treated this combination of contradictory ATC instructions and military tension as a hazard for civil flights. From this perspective, Crimea is a case of risk produced by contested air control, while MH17 is a case of risk produced by the overflight of a conflict zone with active anti-aircraft systems.

MH17 changed the way airspace in conflict zones is assessed. The Dutch Safety Board (2015) established that the Boeing 777 aircraft was shot down over eastern Ukraine, and that all 298 people on board died. The report showed that the risk to civil flights had not been

adequately recognised by the parties involved. The Dutch Safety Board (2019) revisited the recommendations and found that overflying conflict zones remains a current risk for aviation. This case showed that the mere existence of a restriction ceiling, for example the prohibition of flights below a certain altitude, is not sufficient when a zone contains surface-to-air systems capable of reaching cruising altitudes.

After MH17, the central question became who should assess the risk. The state controlling the airspace bears the primary responsibility, but the air operator cannot limit itself to that responsibility. ICAO (2023) treats risk assessment as a joint process, in which the state of overflight, the state of the operator, the aviation authorities, the intelligence services and the operators must all contribute relevant data. This is essential because the state affected by the conflict may not have the capacity, the will or the political freedom to close the airspace in time. In such situations, the absence of a closure decision cannot automatically be interpreted as the absence of risk.

The European response to this problem was the strengthening of EASA's role. Regulation (EU) 2018/1139, through Article 88, provides for cooperation between the Commission, EASA and the Member States when there are interdependencies between civil aviation safety and security. This provision offers the basis for the exchange of information and for issuing recommendations regarding conflict zones (European Parliament & Council of the European Union, 2018). In practice, EASA uses Conflict Zone Information Bulletins, that is CZIBs, for high-risk airspace, and other forms of information for different levels of risk.

EASA's CZIBs are important because they transform security information into an operational tool for operators. They describe the affected airspace, the level of risk, the types of threats and the recommendations for operators. For Ukraine, EASA (2026a) maintains the recommendation to avoid the affected airspace, and for the Russian Federation, EASA (2026b) points to risks related to anti-aircraft defence, misidentification and GNSS interference in the western area of Russia. This approach shows that airspace in conflict should not be viewed only through the borders of the state in which the fighting takes place, because military, electronic and operational effects extend into neighbouring airspaces.

GNSS interference represents a distinct threat. It does not physically destroy the aircraft, but it can degrade navigation, generate false warnings, affect satellite-based procedures and increase crew workload. Ostroumov et al. (2025) include the jamming and spoofing of

navigation signals among the threats that can affect civil aircraft not only in the conflict zone, but also in neighbouring airspaces. For Europe, this aspect is important because the war in Ukraine has produced an increase in reports of navigation interference in Eastern Europe, in the Baltic Sea, in the Black Sea and in the vicinity of active military airspace.

Another effect of the conflict is the increase in route complexity. Ostroumov et al. (2025) use the Horizontal Flight Efficiency indicator, HFE, to assess how inefficient a trajectory becomes when the aircraft must circumnavigate closed or restricted airspace. The authors calculate the difference between the resulting trajectory and the ideal great-circle trajectory. The greater the HFE, the greater the inefficiency of the trajectory. This approach makes it possible to quantify the effect of an airspace closure, not merely to describe it in general terms.

In the case of the Russo-Ukrainian war, the effect is not limited to Ukraine. Ostroumov et al. (2025) show that the combined airspace affected by the closure of Ukraine and the restriction of the airspaces of Russia and Belarus forms a very large barrier for flights between Europe, North America and Asia. The authors estimate that the area involved represents one of the largest airspace segregations since the Cold War period. Consequently, airspace in conflict must be analysed as network infrastructure. The closure of one zone produces effects in other zones, even if they are not directly involved militarily.

The same idea appears in Martín-Domingo, Ersöz and Martin (2026), who analyse Russia's air connectivity after the restrictions imposed following the invasion of Ukraine. The authors show that, after 24 February 2022, 36 countries, including the European Union, the United Kingdom and the United States, closed their airspace to Russian airlines, and Russia responded with reciprocal bans. In the first month, Russia's international capacity fell by 41%, but by January 2023 it had returned close to the previous level, with a total decline of only 4%. This recovery was achieved by reorienting connections towards markets that remained accessible, in particular Turkey and the United Arab Emirates.

This result has an important implication for aviation security. Airspace closure does not necessarily eliminate the connectivity of the targeted state. It changes the geography of connectivity. Martín-Domingo et al. (2026) show that the number of countries connected by air with Russia fell from 64 to 34, and that the most affected connections were the European ones. Nevertheless, alternative markets grew. Turkey, the United Arab Emirates, Armenia and other states absorbed part of the flows. This shows that airspace restrictions have strategic effects

different from their operational effects. From an operational point of view, they reduce the risk for operators who avoid a zone. From a geopolitical point of view, they can be circumvented by reconfiguring the network.

The reconfiguration of routes has direct effects on costs. Martín-Domingo et al. (2026) note that the restrictions on Russian airspace forced European operators flying to Asia to use longer routes, and some connections, such as Paris-Tokyo, required additional flight time. Ostroumov et al. (2025) confirm the same phenomenon through the analysis of increased trajectory length and total flight time. In such cases, aviation security produces operational costs, and operators must choose between more expensive but safer routes and shorter but risk-exposed routes.

Civil-military coordination is the second pillar of airspace in conflict zones. Mostarac, Reščić, Mihetec and Novak (2022) show that European airspace is fragmented, and that fragmentation produces congestion. The authors explain that the flexible use of airspace is based on civil-military cooperation and on the coordination of airspace use. This idea is useful for conflict zones because it shows that a complete separation between civil and military aviation no longer reflects operational reality. Even in peacetime, military airspace structures must be activated, deactivated or adjusted according to civil traffic. In times of conflict, this coordination becomes vital.

Mostarac et al. (2022) describe three levels of airspace management: strategic, pre-tactical and tactical. The strategic level establishes flexible structures and priority rules. The pre-tactical level operates through a joint civil-military airspace management cell. The tactical level involves real-time cooperation for the activation, deactivation or reallocation of airspace structures. In conflict zones, these levels must function rapidly. If information about a missile launch, a drone attack or the activation of anti-aircraft defence does not reach the civil authority, aircraft may remain on dangerous routes.

The PS752 case shows the consequences of the failure of civil-military coordination. The Aircraft Accident Investigation Board of the Islamic Republic of Iran (2021) reported that Ukraine International Airlines flight PS752, which took off from Tehran for Kyiv on 8 January 2020, was misidentified by an anti-aircraft defence unit, and two missiles were launched at the aircraft. All 176 people on board died. The report is relevant because the civil aircraft was operating on a departure procedure, in open airspace, in a context of heightened military tension.

PS752 shows that an airspace can be formally open but operationally unsafe. In a military alert regime, defence systems may misinterpret the trajectory of a civil aircraft. In such situations, the decision to keep the airspace open must be supported by very good coordination between the civil authority, anti-aircraft defence and air operators. EASA (2026c) explicitly mentions that Iran maintains a high level of alert for its air forces and anti-aircraft defence units, which increases the probability of misidentification in the Tehran FIR. For this reason, EASA recommends that operators not operate in the airspace of Iran, Iraq and Lebanon at all altitudes and flight levels, in the context described in CZIB 2026-03-R14.

This recommendation shows that modern aviation security does not concern only the flight itself. It includes airport infrastructure, air traffic services, command centres, military systems and communications networks. EASA (2026c) emphasises that the risks for aircraft operating in the region can be reduced through proactive airspace management and contingency plans, but that these measures do not completely eliminate the vulnerability of ground-based aviation infrastructure. This formulation is important because it extends the analysis from the aircraft to the aviation ecosystem.

Within this framework, assessing the impact of airspace blockage becomes an essential technical component. Srivastava, St. Clair and Pan (2018) propose a “what-if” analysis method for rapidly estimating the impact of blocking volumes of airspace. Their study does not refer strictly to war, but to potentially hazardous operations, such as space launches, yet the method is relevant to conflict zones. The authors show that users can draw a blocked airspace volume on a map, can modify its size, position or activation time, and can rapidly receive indicators regarding the affected traffic. Such logic can support decisions regarding the closure, reopening or restriction of airspace in crisis situations.

Srivastava et al. (2018) use the concept of a route segment density map. Real trajectories are divided into segments between known waypoints, and crossings are aggregated over hourly intervals. Thus, when a volume of airspace is blocked, the model can rapidly estimate how many flights intersect that zone. The authors show that the method allows an instantaneous assessment of the impact of blocking an arbitrary airspace, with a low loss of accuracy compared with real data. For conflict zones, such an instrument would allow the comparison of several scenarios: total closure, altitude restriction, transit corridor or complete avoidance.

Nevertheless, technical models cannot replace security judgement. Srivastava et al. (2018) show that traffic prediction is affected by season, day, hour, weather, ATC strategies and operator behaviour. In conflict zones, these uncertainties increase, because additional factors appear: the activation of anti-aircraft defence, missile attacks, drones, electronic jamming, political decisions and rapid changes to NOTAMs. Therefore, an impact-assessment system must be integrated with security information, not used in isolation.

Drones add a new dimension of risk. Wallace, Winter, Rice, Kovar and Lee (2023) analysed cases of dangerous proximity between unmanned aircraft systems and manned aircraft, using objective UAS detection data and ADS-B. Their study shows that pilots' visual reports are limited, because they depend on the crew's ability to observe the object and to correctly estimate its distance and altitude. In conflict zones, this problem becomes more serious. Drones can operate in large numbers, at different altitudes, with unpredictable flight profiles and sometimes without electronic cooperation.

The use of military drones, improvised drones and loitering munitions changes the nature of airspace in conflict. Ostroumov et al. (2025) mention that the automatic flight of military unmanned aerial vehicles represents a serious hazard for civil aviation in conflict zones. Unlike a piloted military aircraft, a drone may have a reduced radar signature, low altitude, a fragmented trajectory and a limited avoidance capability. If these systems operate in the vicinity of civil routes or airports, the risk is not confined to the actual combat zone.

A useful concept for analysing airspace in conflict zones is “risk stratification”. Not all altitudes carry the same risk. Not all regions of a FIR are equally exposed. Not all threats have the same range. Long-range surface-to-air missiles can affect cruising altitudes. Small drones mainly affect low altitudes, the vicinity of airports and arrival or departure procedures. GNSS jamming can affect extensive areas and can cross borders. Anti-aircraft defence on alert can produce misidentifications at any flight level. For this reason, the closure decision must combine geographic analysis, vertical analysis and temporal analysis.

In practical terms, a mature assessment of airspace in conflict must answer several questions. The first question is whether there are weapon systems capable of reaching civil altitudes. The second question is whether there is intent or a probability of mistaken engagement. The third question is whether the civil authority receives military information in time. The fourth question is whether the operator has independent sources of information. The

fifth question is whether the alternative route is available and economically sustainable. ICAO (2023) and the Dutch Safety Board (2019) support this logic through their emphasis on threat identification, information exchange and risk assessment.

For Europe, airspace in conflict zones has a strategic dimension. The European Union does not directly administer all the airspaces in its neighbourhood, but European operators fly to, from or near these zones. For this reason, EASA functions as a hub for collecting, assessing and communicating risks. EASA (2026a) and EASA (2026b) show that Ukraine and the west of the Russian Federation remain critical zones for flight safety, and EASA (2026c) shows that the Middle East can move rapidly from tension to active conflict. This continuity of risks confirms that European aviation security depends on the geopolitical neighbourhood.

The legal dimension must not be separated from the operational one. After MH17, state responsibility became part of the discussion about aviation security. The Government of the Netherlands states that both the European Court of Human Rights and the ICAO Council found Russia responsible for the downing of flight MH17 and for the deaths of the persons on board. This legal development is relevant because it confirms that the use of weapons against civil aircraft is not merely an operational accident, but also a serious breach of the international obligations of states.

Nevertheless, legal liability usually arises after the tragedy has occurred. The purpose of aviation security is prevention. For this reason, the management of airspace in conflict zones must be anticipatory. Mostarac et al. (2022) offer a useful lesson through the idea of proactive planning of the flexible use of airspace. The authors show that choosing intervals with reduced civil traffic can diminish the impact of military activities on civil traffic. In conflict zones, the same logic can be applied in reverse: when military activity increases, civil traffic must be reduced, diverted or suspended before the risk becomes critical.

Closing the airspace is the firmest protective measure, but it is not the only one. There can be altitude restrictions, mandatory routes, temporary corridors, prohibitions during certain hours, additional monitoring requirements, contingency plans and rapid communication procedures. However, the experiences of MH17 and PS752 show that partial measures can fail if the threat assessment is wrong. If there are anti-aircraft systems capable of striking cruising altitudes, or if air defence operates at a high state of alert, simply maintaining civil corridors may be insufficient.

Airspace in conflict zones must be understood as vulnerable infrastructure, not as a neutral surface. It can be affected by military decisions, sanctions, territorial claims, weapon systems, jamming technologies, drones and a lack of coordination. The cases of Crimea, Ukraine, MH17 and PS752 show that risk can take different forms. In Crimea, the risk arose from contested air control. In eastern Ukraine, the risk arose from overflying a zone with active anti-aircraft systems. After 2022, the risk arose from an extended conflict that closed airspaces and reconfigured global routes. In Iran, the risk arose from the misidentification of a civil aircraft by anti-aircraft defence.

Consequently, the security of airspace in conflict zones depends on four conditions. The first is accurate information about threats. The second is real civil-military coordination. The third is the operators' capacity to turn information into a routing decision. The fourth is the existence of an international framework that obliges states to communicate risks and to avoid the use of weapons against civil aircraft. ICAO, EASA, the FAA and national authorities have different but complementary roles. ICAO provides the global framework. EASA provides the European alerting mechanism. The FAA provides the example of direct prohibitions for U.S. operators. Air operators apply the final decision in flight planning.

Airspace in conflict zones cannot be treated merely as a routing problem. It represents a point of intersection between aviation, security, international law and geopolitics. The closure of a FIR affects not only the country concerned. It alters the global network, operating costs, market access and the distribution of traffic across the corridors that remain open. At the same time, the failure to close a dangerous airspace can produce irreversible consequences. The central lesson is clear: in conflict zones, the aviation decision must be preventive, documented and internationally coordinated.

CONCLUSIONS

Ensuring civil aviation security has been a matter of constant concern for the civil aviation community since the Cold War era, a period, however, marked by an inability to reach a consensus on successfully combating crimes directed against civil aviation.

The issue of aviation security was first addressed by the International Civil Aviation Organization and subsequently by the European Civil Aviation Conference and the European

Union, with the latter taking its first steps in this regard following the attacks of September 11, 2001.

To gain an overview of the international community's efforts to suppress acts of unlawful interference, I have analyzed the key documents issued to achieve this objective. This analysis highlights the legal responsibilities and obligations of States regarding the prevention of acts of unlawful interference and underscores that combating this phenomenon is impossible without the proper and prompt implementation of these regulations.

Since 1963, the International Civil Aviation Organization has adopted a series of documents aimed at curbing the commission of these offenses on an international scale. These documents took the form of international conventions and technical annexes, the latter incorporating Standards and Recommended Practices, with the specific document relevant to this study being Annex 17, "Safeguarding International Civil Aviation against Acts of Unlawful Interference," to the Convention on International Civil Aviation (the first edition of which was adopted in 1974).

To ensure aviation security at the regional level, the European Civil Aviation Conference, an organization with a mandate in the field of aviation security, adopted the first edition of Document 30 in 1985.

The European Union revised its air transport policy following the attacks of 11 September 2001 by adopting a series of regulations aimed primarily at ensuring the protection of citizens using this transport system. This new policy was implemented through the adoption of Regulation (EC) No 2320/2002 of the European Parliament and of the Council of 16 December 2002 establishing common rules in the field of civil aviation security; Commission Regulation (EC) No 820/2008 of 8 August 2008 laying down measures for the implementation of common basic standards on aviation security; Regulation (EC) No 300/2008 of the European Parliament and of the Council of 11 March 2008 on common rules in the field of civil aviation security and repealing Regulation (EC) No 2320/2002; and Commission Regulation (EU) No 185/2010 of 4 March 2010 laying down detailed measures for the implementation of the common basic standards on aviation security. Pursuant to Article 249 of the Treaty establishing the European Community, these regulations have general application, are binding in their entirety, and apply in every Member State of the European Union.

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Interdisciplinary: Social Sciences and Humanities

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ISSN 3008-4849 (Print)
ISSN 3008-4822 (Online)
ISSN-L 3008-4822