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Editor's Note

The *Thai Journal of National Interest*, Issue 21, presents a selection of scholarly works that reflect critical dimensions of national security and interests across psychology, economics, society, and governance.

The article **"Flexible Self-Regulation and Resilience"** highlights the role of adaptability and self-regulation in confronting disasters, terrorism, and pandemics. It emphasizes that resilience is not a static trait but a dynamic process that requires continuous development.

In the field of political economy, **"Reprogramming Sovereignty: Financial Algorithms and the Future of Political Economy"** introduces an innovative perspective on how states may employ financial algorithms to redesign economic sovereignty in the context of a shifting global order beyond Bretton Woods.

From the socio-cultural dimension, **"Digital Deconstruction of Tradition"** analyzes the transformation of religion and family life under the influence of digital society, revealing the increasing complexity and hybridity of values, beliefs, and intergenerational transmission.

The issue concludes with a case study, **"Digital Tools in Security Governance: The Case of Poland"**, which explores both the opportunities and limitations of digital mechanisms in enhancing participatory democracy in the field of national security governance.

Taken together, these contributions underscore a unifying theme: **resilience and sovereignty** are the essential factors linking individuals, societies, and states in navigating both enduring and emerging challenges of the twenty-first century.

The Editor sincerely hopes that the works in this issue will be of great benefit to readers, both academically and practically, providing knowledge and pathways for safeguarding national interests in a sustainable manner.

Dr. Jakkrit Siririn

Editor-in-Chief

Thai Journal of National Interest

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Reprogramming Sovereignty: Financial Algorithms and the Future of Political Economy

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ABSTRACT

This article examines the epistemological foundations of sovereignty in the context of the declining liberal economic order and the emergence of strategic statecraft. Drawing on Russia's algorithmic response to Western sanctions, it introduces the concept of sovereign acceleration—a temporal regime enabling strategic outcomes independent of traditional capital accumulation. Utilizing a methodology grounded in strategic epistemology, comparative circuit analysis, and visual infographics, the study argues that new modalities of sovereignty emerge from the capacity to program financial circuits and redesign developmental trajectories beyond the Bretton Woods paradigm. The findings provide a reframing of political economy by integrating resource ontology, financial autonomy, and algorithmic governance into a framework for analyzing sovereign resilience.

KEYWORDS: sovereignty, financial circuit, strategic epistemology, algorithmic time, Bretton Woods, Russia

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Introduction: The Algorithmic Turn in Sovereignty

The geopolitical and economic upheavals of the 21st century—marked by sanctions, pandemics, and regional realignments—have exposed the structural limits of the neoliberal order. Russia's response to Western financial pressure demonstrates how states may attempt to move beyond the Bretton Woods framework by constructing alternative financial ontologies grounded in sovereign logic. This article challenges the assumption that sovereignty must be mediated through liberal market principles or electoral legitimacy. Instead, it proposes that sovereignty is increasingly produced through the algorithmic configuration of financial circuits that enable strategic outcomes without reliance on traditional forms of capital accumulation. The guiding question is not whether states survive global crises, but how they rewrite temporal structures, control cycles of production, and design strategic resilience. Through the Russian case, the study introduces the notion of sovereign time and accelerated outcome regimes, offering a reframing of political economy in the digital era.

Table 1.

Relevant Literature by Thematic Contribution

Thematic Focus	**Key Authors**	**Contribution to the Article**
Ontology of Sovereignty	Foucault (2008), Dugin (2012)	Defined sovereignty as epistemic rather than legal or territorial
Algorithmic Finance	Bratton (2016), Zuboff (2019), BIS (2020)	Interpreted algorithms as instruments of control in modern governance
Strategic Economic Planning	Khazin and Kobyakov(2020), Milanovic (2019)	Differentiated between sovereign and client states in global circuits
Anti-Dollar Paradigm	Eichengreen (2011), Arrighi (1994), Hudson (2003)	Explored the historical and systemic dominance of the dollar and its decline
Epistemic Acceleration	Suwan-achariya (2025), IMF (2022)	Proposed new algorithmic tools for time-based economic sovereignty

Note. This table summarizes the key sources that underpin the article's epistemological and methodological foundations. Created by the author. Synthesized from IMF *(2022)*, Khazin & Kobyakov *(2020)*, and Suwan-achariya *(2025)*.

1.Methodology: Strategic Epistemology with Comparative Circuit Design

This article applies a strategic epistemology framework rooted in ontological design and acceleration theory. As Cox (1981) has argued, methodology is never neutral but "for someone and for some purpose." This principle underscores the political dimension of epistemic choices: the way we study sovereignty already reflects a positionality toward power, knowledge, and institutional order. In this sense, Jessop (2016) reminds us that the state should not be treated as a fixed actor but as a dynamic institutional ensemble embedded in shifting world-systemic logics. This dual orientation — methodology as political choice (Cox) and the state as evolving ensemble (Jessop) — anchors the present study in critical political economy while opening space for sovereign circuit design as a methodological innovation. Rather than relying on statistical inference or regression models, the methodology emphasizes conceptual modeling and comparative epistemology through the following dimensions:

- **Ontological Comparative Analysis**: Sovereign financial algorithms are compared against Bretton Woods–based infrastructures across four analytical dimensions: time, value, control, and legitimacy. This enables tracing how monetary regimes encode sovereignty beyond exchange rates and reserves.
- **Circuit-Based System Modeling**: Nations such as Russia, China, and Iran are analyzed as constructors of closed-loop sovereign circuits, aligning monetary emission, domestic retention, and reinvestment logics. This builds on the recognition that sovereignty lies not in nominal independence but in circuital control.
- **Infographic Integration**: Conceptual transfer is supported through visual circuit models (e.g., Sovereign Feedback Loop, Sovereign vs. Global Time, Dollar vs. Sovereign Algorithms). These diagrams act as methodological instruments, not illustrations, by embedding systemic dynamics into communicable schematics.
- **Case Selection via Epistemic Intentionality**: Case selection is guided by intentionality rather than statistical representativeness. The focus lies on states that explicitly reject dollar hegemony and experiment with algorithmic sovereignty — making their trajectories strategically rather than randomly relevant.

- **Dialectical Acceleration Regime**: Economic time is reframed as programmable temporal sovereignty. Instead of deferring development through global market cycles, states attempt to accelerate outcomes by design, compressing future gains into present circuits.

This methodology thus operates as both critique and reconstruction: critique, in the Coxian sense of exposing the political stakes of methodological choice, and reconstruction, in the Jessopian sense of mapping how evolving state ensembles reconfigure monetary and infrastructural sovereignty through algorithmic design

2.Analytical Framework and Conceptual Turn

Sovereignty is understood here not as a fixed institutional property, but as an evolving algorithmic construct—shaped by temporal regimes, control over financial circuits, and the capacity to generate strategic outcomes under constraint. This section identifies three major turns in sovereignty:

1. Territorial Power – enforced through military strength and borders.
2. Institutional Power – exercised through policies, treaties, and multilateral frameworks.
3. Algorithmic Power – embedded in protocols, digital circuits, and financial codes.

This article explores how sovereignty can be reprogrammed through financial algorithms—how nations can escape dependency on foreign code and design strategic circuits of economic autonomy. Figure 1 below visually summarizes this transformation of sovereignty across three epochs This figure illustrates the evolving nature of sovereignty across three major historical and operational shifts. The first turn, **Territorial Power**, is defined by military control and geographic borders. The second, **Institutional Power**, centers on treaties and policy frameworks governed by bureaucratic and multilateral institutions. The current and emerging turn is **Algorithmic Power**, which is exercised through protocols and code—often invisible yet critical infrastructures for financial, logistical, and communicative sovereignty. This typology highlights the transition from material to informational regimes of control and the need for reprogramming sovereignty in the digital era.

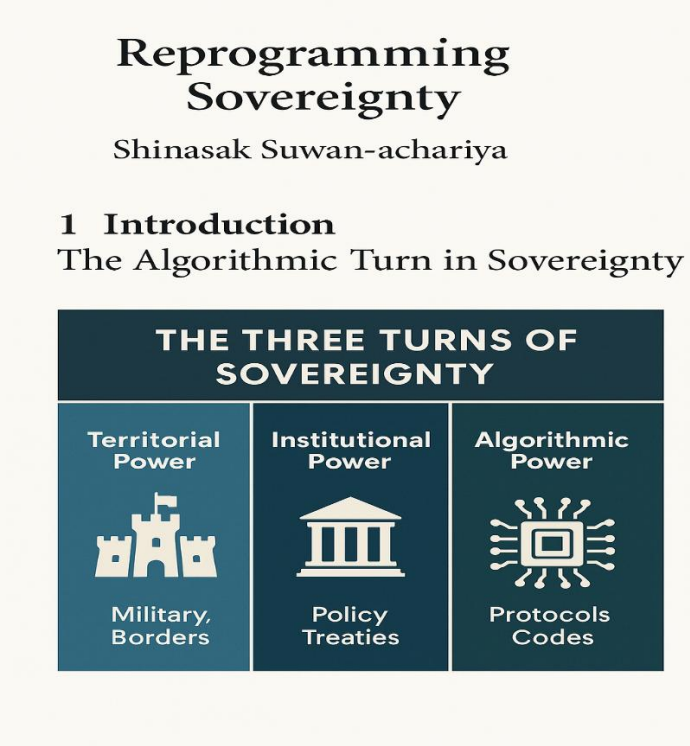

Figure 1. *The Three Turns of Sovereignty: From Territorial to Algorithmic Power*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

2.1 The Birth of a Global Algorithm: Bretton Woods as Code

The Bretton Woods system, established in 1944, did not merely create a new monetary order—it coded the foundations of a financial operating system that continues to shape the global economy today. While initially presented as a multilateral agreement among sovereign nations, the architecture embedded a logic of centralized control through the U.S. dollar.

- The IMF and World Bank served as institutional executors of this code.
- The U.S. dollar, tied first to gold and later floated, became the reserve currency.
- Monetary policy across the globe was subordinated to a logic of dollar dependency.

The key shift was ontological: sovereignty became conditional upon participation in a global algorithm where the dollar was the central processor.

2.2.Financial Colonialism: From Code to Control

The term "financial colonialism" describes a system where peripheral economies are locked into dependency via mechanisms beyond traditional imperialism. Instead of occupying land, empires now occupy fiscal space, data flows, and credit ratings.

"Modern colonization is no longer about territory, but liquidity."
— *Shinasak Suwan-achariya*

Core Instruments of Financial Colonialism:

- SWIFT: Controls access to global payment networks
- Rating Agencies: Decide a nation's creditworthiness algorithmically
- Dollar Liquidity Traps: Create cycles of external debt
- IMF Conditionality: Rewrites national budgets via policy loans
- Sanctions: Weaponize code to exclude sovereign actors from the system

Table2.

Comparative Ontology Table: Bretton Woods vs Sovereign Circuits.(Foucault, 2008) (Zuboff, 2019)

Aspect	**Bretton Woods Logic**	**Sovereign Financial Circuit**
Currency Anchor	US Dollar (Gold Fiat)	Resource-backed or Digital Local Currencies
Control Center	IMF / World Bank / SWIFT	Central Bank-led, Domestic Ecosystems
Logic of Power	Conditional Inclusion	Strategic Autonomy
Flow of Capital	Dollar-Centric, External Investment	Internal Recycling, Sovereign Reinvestment
Crisis Management	Austerity and Bailouts	Circuit Reprogramming & Acceleration
Role of Algorithm	Hidden in Institutions	Explicitly Designed for Strategic Goals

Note. Created by the author.

2.3 Layers of Financial Colonialism

Building upon the conceptual turn toward algorithmic sovereignty, this section dissects the architecture of financial control embedded in global economic infrastructure. The contemporary financial regime, although no longer formally bound to the Bretton Woods system, continues to exert asymmetric power through layered mechanisms that function beyond traditional territorial or institutional forms.

- Value Layer

At the foundation is the value layer, in which the U.S. dollar functions as the universal equivalent. This creates a systemic dependency, forcing all nations to benchmark value, reserves, and trade in terms of a single sovereign currency—concentrating power in the issuing state.

- Algorithmic Layer

Above this lies the algorithmic layer, where ratings agencies, sanctions algorithms, and automated compliance systems enforce economic discipline. These operate not via military force or formal treaty, but through code-based enforcement of norms, often precluding sovereign choice.

- Infrastructure Layer

The uppermost infrastructure layer encompasses networks like SWIFT, VISA, Mastercard, and associated payment systems. These infrastructure protocols act as gatekeepers of global transaction flows, capable of instant exclusion or surveillance—undermining sovereignty through programmable chokepoints Such dynamics echo Srnicek's *(2017)* analysis of platform capitalism, where infrastructural control becomes a determinant of sovereignty, and Bratton *(2021)* on the "revenge of the real," where code-based governance defines pandemic and financial responses alike.

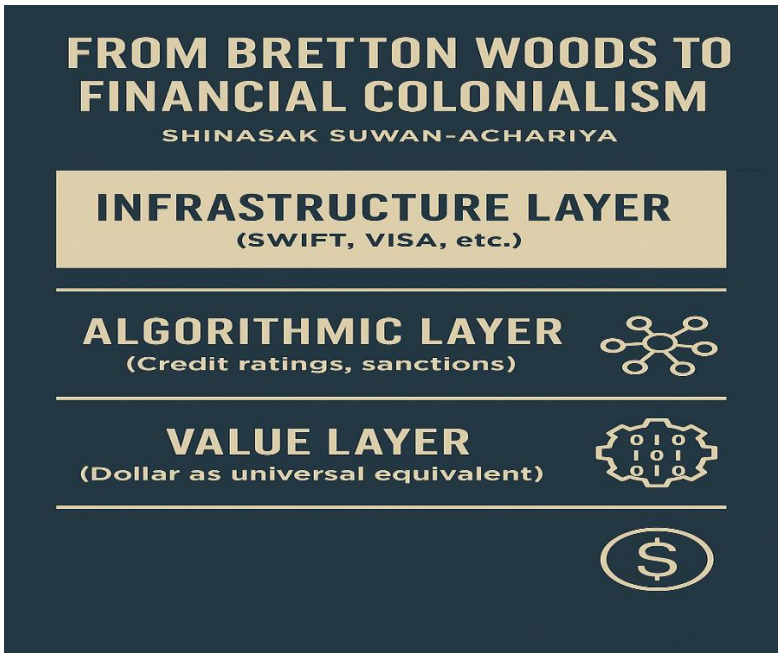

Figure 2. *Three-layered structure of financial colonialism under the post-Bretton Woods regime.*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

This movement away from the dollar circuit is not merely technical but epistemological. Nouriel Roubini (2022) argues that the weaponization of finance has incentivized countries to hedge against dollar dependence, while Paul Krugman (2022) warns that U.S. leverage could decline if economic coercion persists. Scholars such as Subacchi (2020) and Tooze (2022) highlight that the fragmentation of the global monetary order is opening space for multipolar financial nodes anchored in sovereignty rather than market orthodoxy. Institutions like the Eurasian Development Bank (EDB, 2024) are facilitating this transition by developing commodity-backed and bilateral settlement frameworks. These developments collectively signal a rewriting of the financial logic of globalization.

The collapse of confidence in Western monetary stability, the weaponization of sanctions, and the emergence of digital financial tools have created an opening. Nations that once followed the "code" of the global dollar system are now writing their own financial algorithms.

- Russia's ruble circuit is being redesigned with energy, military, and logistics at its core**.**
- *China's digital yuan bypasses SWIFT and experiments with programmable money***.**

  This aligns with debates within central banking research, which highlight CBDCs as **"**minimally invasive**"** technologies designed to preserve sovereignty while ensuring resilience in cross-border payments **(**Auer & Böhme, 2021; Bank of England, 2021**).**

- Iran and India are building bilateral and multilateral circuits based on commodities and infrastructure.

This is not simply a shift in tools—it is a shift in ontology: a redefinition of what counts as *value*, *money*, *power*, and *sovereignty*.

Figure 3. *Sovereign Finance vs Dollar Circuit: A Strategic Comparison*

Feature	Dollar-Zone Logic	Reprogrammed Sovereignty
Currency Control	Externalized (SWIFT, IMF)	Internalized (Ruble, Yuan, Crypto)
Value Basis	USD trust	Commodity-backed / Protocol-led
Financial Institution	IMF / World Bank	Bilateral Development Banks
Flexibility	Low	Programmable
Strategic Orientation	Western-Dominant	Multipolar

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

3.Sovereign Circuits and Strategic Time: The Ontology of Financial Algorithms

3.1 What Is a Financial Algorithm?

A financial algorithm is not merely a set of computational instructions—it is a **sovereign logic of circulation**, determining **who gets what, when, and how**. In an age where money is no longer neutral but programmable, financial algorithms have become the operating system of political economy.

- They control **issuance** (who can create liquidity)
- They determine **priority** (what sectors or actors receive it)
- They define **retention** (how long value stays within a system)
- And they guide **reinvestment** (what feedback cycles are incentivized)

Thus, every financial algorithm **carries ontology**—a view of value, time, power, and national purpose.

"A financial algorithm is not just code—it is a blueprint of who a nation wants to become"

— *Shinasak Suwan-achariya*

3.2 The Sovereign Circuit: A Closed-Loop Design for National Resilience

Strategic states design **sovereign circuits**—closed-loop financial flows that accelerate outcomes, protect key industries, and resist external shocks. These are not abstract designs; they are the core of modern statecraft.

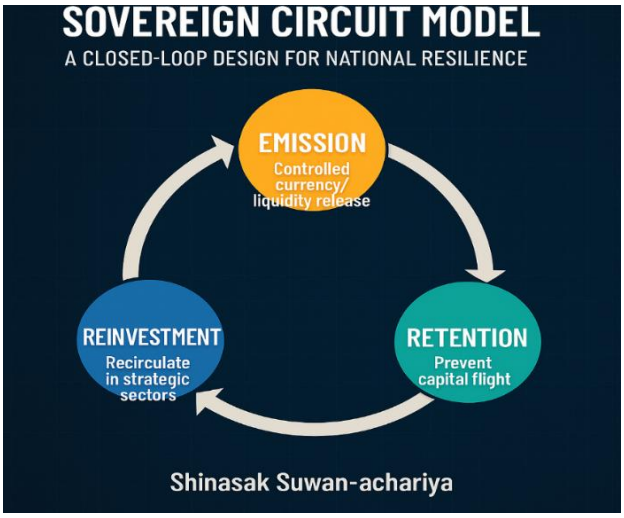

Figure 4. *Phase Sovereign Circuit (Emission – Retention – Reinvestment*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

Table3.

Phases of Sovereign Monetary Circuit (Russia Example)

Phase	**Function**	**Example (Russia)**
Emission	Controlled currency/liquidity release	Energy-backed rubles via gas trade
Phase	**Function**	**Example (Russia)**
Retention	Prevent capital flight	Capital controls and import substitution
Reinvestment	Recirculate in strategic sectors	Military–Logistics–Healthcare loop

This design turns money into a **sovereign tool**, not just a medium of exchange. It aligns national development with a programmable outcome framework.

3.3 Ontological Differences: Dollar Algorithm vs Sovereign Algorithm

Category	**Dollar-Based Financial Algorithm**	**Sovereign Financial Algorithm**
Value Anchor	Floating fiat, trust in Fed	Energy, commodity, or national strategy
Objective	Global liquidity & capital mobility	Strategic self-reliance & targeted acceleration
Circuit Flow	Open-ended, leaks to global finance	Closed-loop, nation-centric reinvestment
Governance	Market-determined via rates	State-programmed based on mission
Visibility	Hidden in financial instruments	Explicit in public financial architecture

3.4 Time, Control, and the Role of Ontology

Sovereign algorithms redefine **time** not as a passive horizon but as a domain of active intervention. Unlike neoliberal systems that defer outcomes to invisible market logic, sovereign financial systems are:

- **Outcome-driven**: Focused on measurable sovereign goals
- **Time-conscious**: Oriented around acceleration, not infinite growth
- **Epistemologically designed**: Reflecting a worldview that prioritizes production over speculation

Designing Financial Algorithms for Sovereignty: Strategic States and Algorithmic Sovereignty

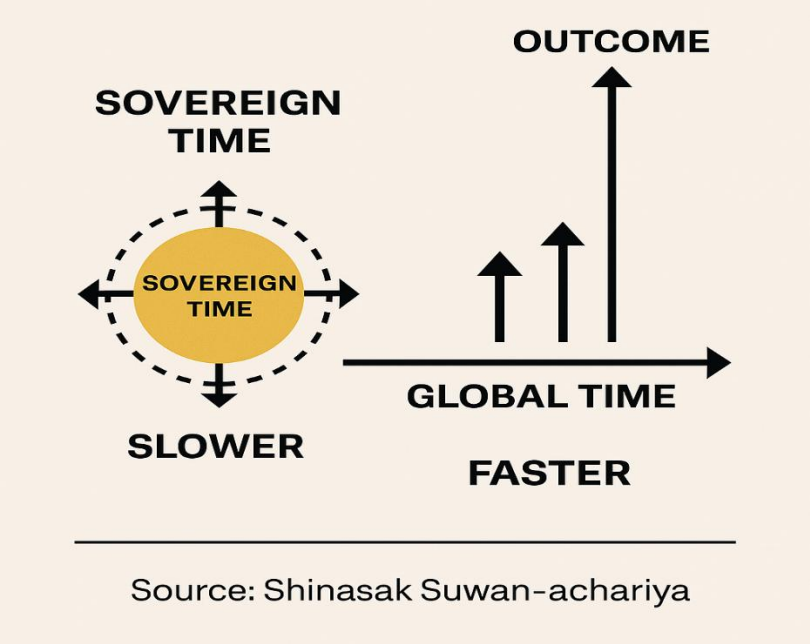

Figure 5. *Sovereign Time vs Global Time: Accelerated Outcome Regime*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

4.1 The Strategic State: Beyond Institutional Participation

In a world where algorithmic infrastructures shape economic outcomes, states can no longer rely solely on participation in global institutions—they must become **strategic designers** of their own economic code. A **Strategic State** does not merely manage its resources; it programs its own **financial outcomes**, timelines, and feedback loops.

Strategic States:

- Design closed circuits of capital circulation
- Prioritize outcome-based planning over market spontaneity
- Treat time as an active variable in sovereignty

In contrast, **Client States** follow pre-coded pathways designed by others—whether by IMF prescriptions, rating agencies, or conditional trade agreements.

4.2 Table 4.

Case Comparison: Strategic vs Client States(Khazin & Shcheglov, 2018) (Milanovic, 2019)

Indicator	**Strategic State (e.g. Russia, China)**	**Client State (e.g. Germany, Thailand)**
Financial Design	Domestic algorithmic control	External dependency on global circuits
Resource Logic	Value-based monetization (energy, tech)	Market-based valuation
Crisis Response	Circuit reprogramming	Fiscal austerity & borrowing
Timeline	Accelerated outcomes (war readiness, tech leaps)	Deferred development, compliance-based
Goal Definition	Autonomy & security	Stability & international legitimacy

4.3 Algorithmic Sovereignty in Action

Russia:

- Ruble circuit anchored in energy trade
- Reinvests in military–logistics–pharma sectors
- Controls capital outflow through double-loop circuits

China:

- Digital yuan as programmable currency
- Local government financing vehicles as parallel reinvestment loops
- Belt and Road as **global supply chain reprogramming**

Iran:

- Sanction-proof clearing mechanisms (barter, crypto, yuan-trade)
- Domestic industrial base backed by military infrastructure
- Recycles liquidity in oil–missile–medicine economy

4.4 The Logic of Survival vs The Logic of Obedience

Strategic states follow a logic of survival, sovereignty, and outcome acceleration. Client states remain locked in a logic of obedience, compliance, and deferred value (Khazin & Shcheglov, 2018; Milanovic, 2019). This bifurcation reflects how global hierarchies reproduce dependency through financial circuits while enabling pockets of sovereign reprogramming.

"To be sovereign today is not to resist globalization, but to reprogram its pathways."

— Shinasak Suwan-achariya

Sovereignty now demands epistemic independence, data autonomy, and control over value circuits—far beyond conventional policy flexibility.

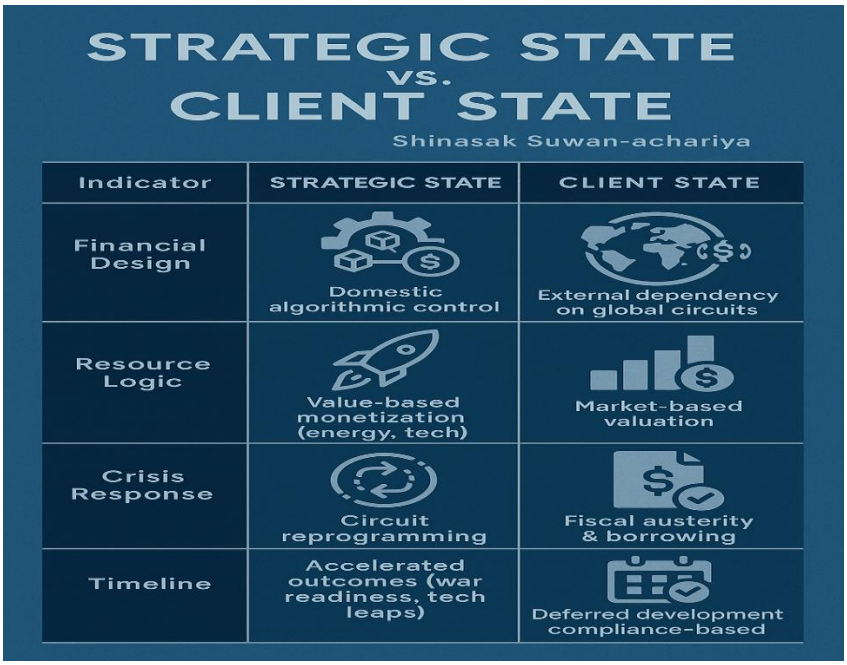

Figure6*.Comparison: Strategic vs Client States*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

5.Reprogramming Sovereignty: Financial Algorithms and the Future of Political Economy

(Morozov, 2013) (Bank for International Settlements, 2021) (Dugin, 2012)

5.1 Crises as Debugging Events

In digital systems, crises serve as **debugging events**—they expose vulnerabilities in the code and compel rewriting. The same is true in political economy. The Covid-19 pandemic, the war in Ukraine, and the weaponization of sanctions have created **interruptions in the financial algorithm** of globalization. (Morozov, 2013) (Bank for International Settlements, 2021) (Dugin, 2012)

These crises:

- Revealed the fragility of global supply chains
- Unmasked the political nature of dollar liquidity
- Exposed the danger of algorithmic dependencies (e.g., SWIFT, credit agencies)

Rather than collapse, **strategic states responded by reprogramming.** (Khazin & Shcheglov , 2018) (Milanovic, 2019)

5.2 The Battlefield Is Not Only Physical—It's Algorithmic (IMF, 2022) (SWIFT Institute, 2020)

This movement away from the dollar circuit is not merely technical but epistemological. Nouriel Roubini (2022) argues that the weaponization of finance has incentivized countries to hedge against dollar dependence, while Paul Krugman (2022) warns that U.S. leverage could decline if economic coercion persists. As Drezner (2015) noted, targeted sanctions in a world of global finance have amplified coercive leverage, but also incentivized the development of circumvention logics. Recent studies stress that the Western sanctions regime after 2022 represents not only a geopolitical measure but a structural redesign of financial warfare (Tooze, 2023). Modern warfare includes:

- **Currency attacks** (freezing reserves, banning transactions)
- **Logistics sabotage** (blocking shipping channels, targeting supply nodes)
- **Data asymmetry** (cutting AI/tech access, cyberattacks)

"To control the battlefield today is to command the flows of money, value, and code."
— *Shinasak Suwan-achariya*(IMF, 2022) (SWIFT Institute, 2020)

5.3 Reprogramming as Resistance

In mid-July 2025, the European Union passed its 18th package of sanctions against Russia, targeting oil price ceilings, shadow fleets, pipeline operations (Nord Stream), and adding 22 more banks to the SWIFT exclusion list. While European officials hailed this as a blow to Russia's military budget, analysts pointed out the limitations of EU-only sanctions. Russia's defense industry is not technologically dependent on Europe, and circumvention mechanisms via Central Asia and China have rendered many restrictions symbolic. However, these sanctions do exert cumulative stress on fiscal planning. Russian officials responded by advancing a doctrine of strategic austerity. Speaker Valentina Matvienko declared a shift toward 'total efficiency for every ruble,' signaling a move from stimulus economics to an Accelerated Outcome Regime, where national priorities determine budget allocations rather than macroeconomic orthodoxy. This case exemplifies how sovereign circuits absorb external pressure by redirecting resource flows internally, designing outcomes under constraint, and redefining time horizons. In contrast to Bretton Woods logic, which delegates financial discipline to market forces or IMF oversight, Russia asserts ontological control—turning sanctions into catalysts for structural redesign. The epistemic implication is clear: resistance is not merely survival, but redesign. The 18th sanction package illustrates the friction between external financial coercion and internal algorithmic adaptation—a key battleground for sovereign algorithmic statecraft.

5.3.1 Case Insight: Russia's 18th Sanction Package and the Logic of Strategic Budgeting

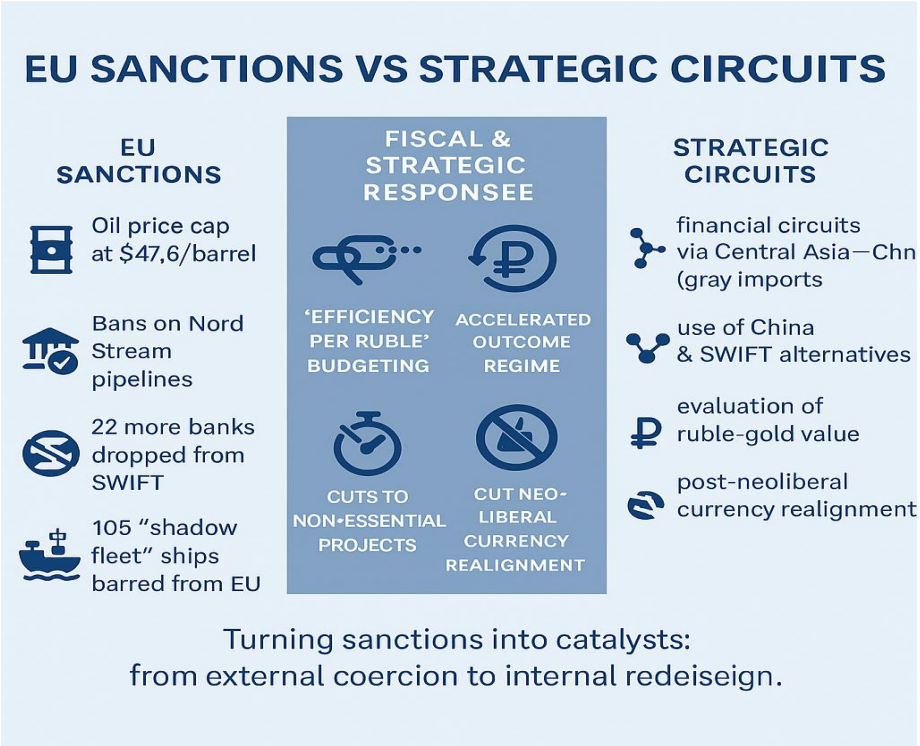

Figure. 7*.EU sanctions vs strategic circuits*

Note.From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

Comparative Table5.

Sovereign Circuit Strategies

Russia	**China**	**Emerging Axis**
Ruble-based energy circuits; capital controls linked to industry; import-substitution hubs	Digital yuan for domestic + Global South trade; BRI-anchored assets; AI-cloud supply chains	Russia–Iran–India corridor; North Korea as reserve; coordination civilizational algorithm

Table 5. Strategic circuits illustrate how Russia, China, and emerging axes encode sovereignty through differentiated financial algorithms, moving beyond trade into civilizational logics.

5.4 The Logic of Acceleration

Strategic states reject the idea that development is slow, sequential, and liberal.

They adopt a **logic of acceleration**:(Khazin & Shcheglov, 2018) (Milanovic, 2019)

Table 6.

Liberal vs. Sovereign Logic across Domains

Domain	**Liberal Logic**	**Sovereign Logic**
Time	Deferred, linear	Accelerated, cyclical
Value	Market-assigned	Strategically programmed
Legitimacy	Global compliance	Domestic survival
Outcome	Growth for growth	Sovereignty-first impact

They view the battlefield as a **programmable architecture**, not just a space of confrontation. (IMF, 2022) (SWIFT Institute, 2020)

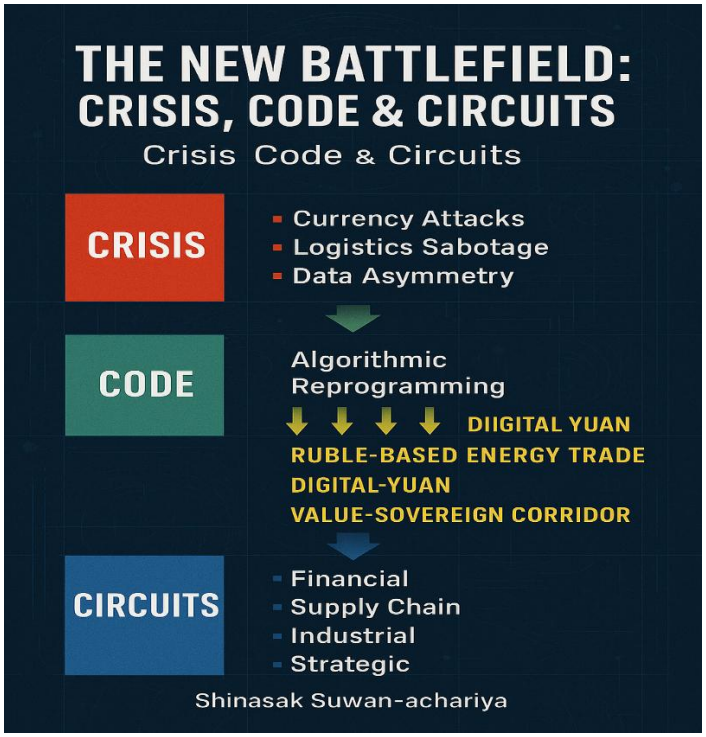

Figure 8. *Crisis-Code-Circuit Model of Strategic Sovereignty*

Note. From *Algorithm of sovereign economy* [Unpublished manuscript], by S. Suwan-achariya (2025).

This diagram illustrates the emerging battlefield in economic warfare—transitioning from direct crises (e.g., currency attacks, logistics sabotage) to algorithmic reprogramming and the establishment of sovereign circuits across finance, supply chains, and strategic industries.

Conclusion: The End of the Dollar as a Universal Code

This analysis reflects what Arrighi (1994) foresaw as the terminal phase of U.S. financial hegemony. Schmitt (2005) emphasized that the dollar's global function as an accounting unit had already become increasingly detached from real productive circuits. Once operating as more than a currency, the dollar historically served as a universal algorithm of value, stability, and access. Yet its progressive weaponization—through sanctions, exclusion mechanisms, and asymmetrical rule-setting—has transformed it from a neutral measure of value into a code of command. That command, however, is now being openly resisted.

Designing Sovereignty Beyond Defensive Autonomy

In the contemporary environment, strategic states no longer pursue sovereignty as a defensive shield but as an active process of design. This transformation entails, as Khazin and Shcheglov (2018) and Milanovic (2019) suggest, a qualitative shift in economic governance: programming circuits instead of following globalized markets; accelerating developmental time rather than deferring it; embedding value into national strategies rather than into dollar-denominated indexes; and localizing control over infrastructures, data, and finance. Sovereignty, therefore, is no longer static but iteratively coded through economic, technological, and epistemic design.

Toward a Civilizational Economy

The emerging post-dollar order is not structured by the ascendance of a single alternative currency but by a plurality of financial logics and institutional designs. Russia experiments with energy-backed ruble circuits; China develops programmable digital infrastructures and the digital yuan; India aligns rupee corridors with production-based ecosystems; and Iran engineers barter and crypto-clearing mechanisms under sanctions pressure (Hudson, 2021; Tooze, 2022; Subacchi, 2020). The diversification of circuits also resonates with Global South debates on the erosion of U.S. hegemony. Acharya (2014) argues that the "American world order" is giving way to regional and civilizational logics, while Gallagher (2016) demonstrates how China's integration with Latin America reframed the limits of the Washington Consensus. These initiatives collectively constitute not a bloc, but a multipolar code system characterized by overlapping sovereignties and differentiated value logics. As Arrighi (1994) anticipated, the systemic cycle of accumulation enters a phase where no single hegemon dominates; instead, plural circuits redefine globalization itself.

Policy Implications

This analysis generates several implications for policymakers, particularly in states of the Global South navigating external constraints. First, central banks may consider developing programmable sovereign currencies linked to national strategies rather than global liquidity demands (Brunnermeier et al., 2021). Second, industrial policies can anchor value creation within sovereign reinvestment circuits rather than external benchmarks. Third, education and research should prioritize epistemic sovereignty in domains of finance, data governance, and artificial intelligence. Finally, diplomacy may shift emphasis from conventional trade treaties toward interoperability agreements across financial protocols and settlement mechanisms. These shifts align with the pursuit of resilience and autonomy under conditions of financial fragmentation.

Final Proposition

The post-dollar economy should not be conceptualized as anti-global. Rather, it is *code-global but value-sovereign*: a system that redefines globalization as a plurality of executable algorithms reflecting civilizational priorities instead of corporate or dollar-based hegemony. Strategic states of the twenty-first century are not those that merely follow rules but those capable of writing their own executable economic logic (Arrighi, 1994; Schmitt, 2005).

Disclosure statement

The author declares that there are no known competing financial interests, personal relationships, or professional affiliations that could have appeared to influence the work reported in this manuscript. All interpretations, arguments, and conclusions are the sole responsibility of the author.

AI Disclosure

The author affirms that this manuscript is entirely the result of the author's own academic work. ChatGPT (OpenAI, GPT-5, August 2025 version) was used solely for minor language editing, grammar correction, and formatting under the author's direct supervision. No research content, data analysis, interpretation, or conclusions were generated by AI. All scholarly ideas, arguments, and findings are the author's own and have been verified for accuracy before submission.

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Exhibition and fair activities in the enterprise marketing management system

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ABSTRACT

The article considers theoretical, methodological and applied aspects of realisation of exhibition and fair activity in the system of marketing management of an enterprise. The essence of exhibition and fair activity is defined, approaches to the interpretation of the concept by different authors are considered. The requirements for organising and preparing for participation in exhibition events have been determined. The article marks out advantages of exhibition and fair activity in the system of marketing management of an enterprise. The article systemises coefficients of assessment of the qualitative level of organisation of events and indicators for assessment of efficiency of exhibition and fair activity for an enterprise. It allocates main stages of management of exhibition and fair activity of an enterprise in the system of marketing management. The study proposes a scheme of implementation of exhibition and fair activities through effective communication between the exhibitor and visitors of the exhibition. The composition of the team of specialists who can provide effective exhibition services and provide professional advice to visitors, create conditions for the proper operation of the exposition is determined. The results obtained by enterprises through participation in exhibitions are highlighted.

KEYWORDS: exhibition and trade fair activities in the marketing management system, indicators for assessing the effectiveness of exhibition and trade fair activities, a team of exhibition service specialists.

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1.Introduction. The development of exhibition and trade fair activities is one of the elements of the company's marketing management system, stimulating innovative solutions, structural changes in favour of high-tech production, and promoting advanced domestic technologies, goods and services in the domestic and foreign markets.

Exhibitions and fairs occupy a special place in the complex of the modern enterprise management system, since they allow expanding the possibilities of dissemination and obtaining economic, organisational, technical and commercial information for development. The relevance of the problem of functioning, development and improvement of the exhibition and fair management system, the proper level of study of these issues by domestic and foreign scholars have led to the choice of the research topic.

2.Literatures review. The essence of exhibition and fair activities within the management system, as well as the rationale for their use as part of a marketing strategy, have been explored by scholars and practitioners such as: Antoniv O., Bozhkova V., Chykalova A., Duplyak T., Erfan Ye., Gaponenko V., Grygorishyn R., Kellezi J., Rozmyslov O., Rykhlik V., Serednytska L., Surko L., Smirnova K., Tkachenko T., Vdovychen A., Vdovychenova O. Yufriadi F. and other authors.

This enables a comprehensive analysis of the effectiveness of exhibition and fair activities within the enterprise's marketing management system. However, methodological approaches to assessing the effectiveness of exhibition and fair activities remain understudied.

The research is aimed at studying the theoretical and methodological and developing applied aspects of implementation of exhibition and fair activities in the system of marketing management of enterprise.

To achieve this goal, the following tasks have been set: to define the essence and types of exhibition and fair activities of enterprise; to consider the features of exhibition and fair activities in the system of marketing management of enterprise; to develop methodological approaches to assessing the efficiency of exhibition and fair activities of enterprise; to propose directions for improving exhibition and fair activities and to develop measures to improve its efficiency.

3.Methodology. To achieve this goal, the authors used theoretical generalisation – to clarify the conceptual framework, in particular, to supplement the concept of 'management of exhibition and fair activities of an enterprise' and the components of exhibition and fair activities of an enterprise; generalisation of the results of research, analysis and synthesis – to develop a methodology for assessing the efficiency of exhibition and fair activities of an enterprise, to supplement the methodology for rating the expediency of an enterprise's participation in exhibitions.

The methodology consists of a rating assessment of the goals defined within the marketing strategy. Let us present the stages of determining the index of expediency of participation in the exhibition in the form of a diagram (Figure 1).

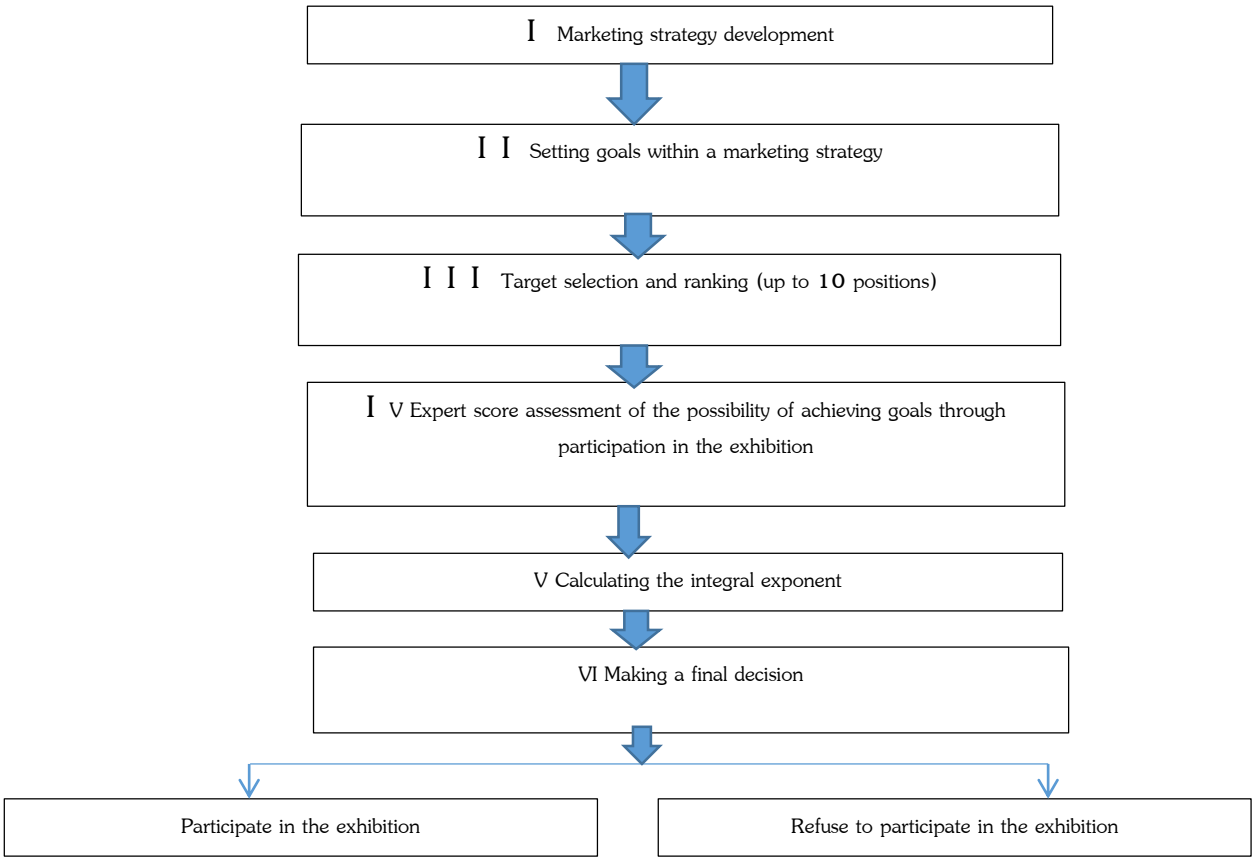

Figure 1. *Stages of determining the integral index of feasibility of participation in the exhibition*

Note. Compiled by the authors

Consider the algorithm for determining the integral index of the feasibility of participating in the exhibition.

1. Selection and ranking of goals set to be achieved within the marketing strategy. It is worth using 10 positions to establish a reliable result.

2. Score the possibility of achieving the goals through participation in the exhibition. To do this, meet with experts who have already participated in similar events. We suggest using the following scoring scale to assess the achievability of goals: 0 – the goal is unachievable, 100 – the goal is completely achievable.

3. The feasibility of participating in the exhibition is determined by an integral index. This criterion is calculated as the product of the specific weight of the goals and the designation of the achievability of the goals. Then you need to add the obtained products. The value of the index is reduced to a value from 0 to 1, for which the sum of the products is divided by 10,000.

The integral index of the feasibility of participating in the exhibition for making management decisions can be determined by the formula:

$$I = \frac{\sum_{i=1}^{10} k_i a_i}{10000}, \quad (1)$$

where ki – specific weight of the target: k1 – target 1; k2 – target 2; k10 – target 10. ai – specific weight of the targets: a1 – specific weight of target 1; a2 – specific weight of target 2; a10 – specific weight of target 10.

4. The final stage is the decision to participate in the exhibition or to reject such an offer. The management decision is made depending on the received integral index according to the proposed rating methodology.

Table 1 shows possible solutions based on the quantitative value of the index.

Table 1.

Management decisions based on an integrated index of the feasibility of participating in the exhibition

Quantitative value of the integral feasibility index	Qualitative characteristics of management decisions
0 – 0,3	Participation in the exhibition is not advisable. The proposal should be rejected.
0,31 – 0,6	It is worth refusing to participate in the exhibition or using more information to clarify the scale and possibilities of the event for
0,61 – 1	Participation in the exhibition is advisable. Start preparing for participation in the event.

Note. Compiled by the authors

4.Results. Participation in exhibitions and fairs is an important component of a company's marketing management system, which allows it to expand its search for buyers and make its products more widely known to the target audience. However, the full-scale war significantly hinders the holding of such events in Ukraine, but does not reduce the opportunity to participate in international exhibitions and fairs.

Exhibition and trade fair activities involve preliminary resolution of issues related to planning, preparation for participation in the exhibition, organisation and distribution of responsibilities, direct participation in exhibition events, representation of the company at the exhibition, actions of the staff after the exhibition, which must be carried out and determine the results of participation in the exhibition (Mylko & Demchuk, 2023). In this article, we propose a methodology that will help you make effective decisions about participating in exhibitions, taking into account the company's goals within the marketing strategy and the established marketing management system of the company.

Bozhkova emphasises that 'exhibition activity is a tool for promoting the company's products to new markets, establishing new contacts with business partners, tracking the development of close competitors, studying general industry trends (Bozhkova, 2011, Bozhkova V. & Chykalova A., 2015).

Exhibition activity is associated with the movement of exhibition samples from the place of production to the exhibition centre, which requires taking into account logistics costs. L. Surko considers exhibition logistics, which is a directed activity carried out through the effective management of the flow

of exhibition services and relevant information from the place of origin to the place of consumption in order to fully satisfy consumer demand (Surko, 2011).

International exhibitions occupy a special place in the marketing management system, as they help to find partners abroad and to enter foreign markets with domestic goods. Despite the uncertainty, Ukraine is defending its right to host the EXPO World Exhibition in 2030 at the state level. Italy, South Korea, and Saudi Arabia are also bidding for the right. This will require creating an exhibition site, building infrastructure, and preparing the city to host an event of this scale for such a large number of people (Mylko, & Demchuk, 2023). The World Expo in 2025 will be held in Osaka, Japan. It is expected that 170 countries will be represented at EXPO 2025, and at least 28 million people will visit it (Grygorishyn, 2023).

Increased global market accessibility through digital technology creates new opportunities for businesses, reduces trade barriers and significantly expands market reach. Increased global market accessibility through digital technologies reflects the positive impact of Information and Communication Technology (ICT) advancements especially in the context of international business and trade (Yufriadi et. al., 2024).

The current security environment has led to the search for new forms of exhibition and trade fair events, so virtual exhibitions have become especially relevant during the 2020 pandemic. However, virtual events do not have the same economic effect on the country's economy as offline events. In addition, online events make it impossible to have direct contact with products and do not allow them to be tested. You can make a virtual presentation and hope that potential partners will be interested in it. In such events, you need to ensure perfect communication, as this is the factor that determines the success of the event (Erfan, 2021).

Virtual exhibition events have the following advantages: no geographical restrictions; high-precision personalisation – the use of intelligent solutions such as Oracle Experience Manager, which allows you to manage the visitor's experience by offering pre-prepared exposition containers; omnichannel – viewing the exposition regardless of the location of participants and channels of access to information; cost-effectiveness for visitors, participants and organisers; no need to look for a place and area for stands and exhibition exhibits (Shynkarenko, 2017).

The virtual exhibition opens up a wide range of opportunities for companies, including the freedom to choose a themed exhibition and virtual stand on which to display information about the company and its products; access to statistics on visits and ratings of the virtual stand; and the ability to independently make changes to the information displayed on the virtual stand.

A virtual stand is a virtual exhibition that will contain basic information about the company, its specialisation, product range, as well as its application possibilities (video content) and contact information. There is an opportunity to establish feedback from consumers. Exhibition organisers use special flash technologies, which make it possible to make the presentation of the company and its products more interesting and dynamic. Virtual exhibitions are characterised by interactivity (Serednytska & Gega, 2017).

Virtual exhibitions, such as clothing exhibitions, can be found on various online platforms and websites. Here are some recommended resources where you can find virtual exhibitions.

1. Virtual Fashion Week. This website offers access to virtual fashion shows from various brands and designers. You can browse clothing collections and join virtual shows in real time.

2. Vogue Runway. This resource provides an opportunity to browse collections of famous fashion brands from all over the world. You can get acquainted with the latest trends, view photos and videos of fashion shows.

3. Artsy. This platform specializes not only in fashion, but also in contemporary art. On the platform, you can find virtual exhibitions in various categories, including clothing and accessories.

Exhibitions can be held in a mixed format, combining virtual and offline events, which will expand both the opportunities and the number of participants.

When organising exhibitions, special attention should be paid to presentations of the company and products. It is necessary to pay close attention to the demonstration, which is a way to present the advertising product to the target audience with recommendations for use. The demonstration, in addition to the business part, may include a solemn part, a cultural programme, a buffet table (Gaponenko, & Rykhlik, 2015).

When planning a presentation of a company or its product, it is important to choose a presentation hall, select a stylish design and equipment that will maintain or enhance the company's image. To increase attendance, it is advisable to organise evening presentations, especially if the presentation is intended for a wide range of visitors (Smirnova, 2021).

The advantage of the exhibition is to focus on a specific topic and attract a business audience. Exhibitors have the opportunity to meet people they have never met before. This helps to spread the effect of the exhibition far beyond its venue. Such events often bring together opinion leaders in the business environment who want to share their experience in organising business processes and competitive tools, or to develop ways out of difficult situations (Vdovychen, & Vdovychena, 2018).

Participation in exhibitions and fairs is relevant for small and medium-sized enterprises that have limited financial resources to organise advertising activities. Domestic entrepreneurs tried to make the most of this opportunity before the pandemic and before the start of the great war. Today, this is gaining relevance again, as the foreign market has become particularly important for Ukrainian business.

The main actors in the exhibition services market are: the organising company; participating companies; and exhibition visitors.

An exhibition organiser is a legal entity or group of legal entities that organises exhibitions.

Exhibitors – legal entities and individual entrepreneurs invited to participate in the exhibition to exhibit their goods and services.

Visitors – representatives of enterprises, entrepreneurs, citizens who visit the exhibition to get acquainted with the exhibits, conclude contracts or purchase goods (Vdovychen, & Vdovychena, 2018).

The quality and application of information gathered through participation, along with sales or orders generated during trade fairs, are among the primary factors used to assess trade show effectiveness. Additionally, obtaining international market insights is also considered a key indicator when evaluating the success of trade show participation (Kellezi, 2014).

Thus, exhibition and fair activity in the system of marketing management of an enterprise is a purposeful and organised process for presentation of products to an interested audience.

In Table 2, the group of authors proposes a set of coefficients for assessing the qualitative level of organisation of exhibitions and fairs.

Among the indicators of efficiency of the exhibition and fair activity of an enterprise, it is proposed, in addition to financial ones, to take into account non-financial performance indicators, such as:

1) share of professional audience in the total number of visitors to the stand;
2) positive assessment of the exposition by the professional audience;
3) assessment of the quality of visitor service;
4) indicator of the company's participation in trade fairs.

Table 2.

Coefficients for assessing the quality level of exhibition and fair organisation

Coefficients	Characteristics of the coefficient
Participation Stability Coefficient	The indicator is determined by the ratio of the total number of participants at an exhibition or fair for the analysed period to the same indicator for the previous period. Its value should be greater than 1 if the number of participants increases
Coefficient of Active Participation (offline)	The indicator is determined by the ratio of the number of exhibitors participating in the exhibition offline to the total number of exhibitors. Its value should not exceed 0.9
Passive Participation Coefficient (online)	The indicator is determined by the ratio of the number of exhibitors participating in the online exhibition to the total number of exhibitors. Its value should not exceed 0.3
An indicator of an international exhibition	The ratio of the number of foreign exhibitors to the total number of exhibitors. Its value must exceed 0.15. An exhibition is considered international if the number of foreign exhibitors exceeds 15%.
Regional Activity Coefficient	The indicator is determined by the ratio of the number of participants from the region where the exhibition event is held to their total number
External Activity Coefficient	The indicator is determined by the ratio of the number of participants external to the region (from another region, country) to the number of local exhibitors
Exhibition Effectiveness Ratio	The indicator is determined by the ratio of the number of participants to the number of contracts concluded. Shows the average number of contracts per participant

Note. From source (Tkachenko, & Duplyak, 2016).

The following indicators can be used to analyse the level of effectiveness of exhibition and fair activities:

1) attendance – the number of visitors who took part in the event. This indicator shows the interest of the audience and may also indicate the popularity of the exhibition or fair;

2) start of sales – the number of sales made during the event. This indicator reflects the actual profits made at the exhibition or fair;

3) orders and contracts – the number of orders or contracts that were concluded during the event. The indicator indicates the potential value and effectiveness of the event in attracting new business clients;

4) press and media engagement – the number of mentions, articles, interviews or reviews of the exhibition in the press and media. This indicator indicates the level of coverage and reputation of the event;

5) exhibitor satisfaction – surveys conducted among exhibitors to assess their opinion of the event. This indicator provides objective feedback and identifies opportunities for further improvement (Rozmyslov O. & Rozmyslova K., 2018).

By participating in an exhibition, companies gain the effect of concentrating their attention, which is achieved due to the massive scale of exhibition and fair activities. This result is enhanced by the brightness of the exhibition as an event with a limited duration.

Indicators for assessing the effectiveness of exhibition and fair management may include:

1) cost of one visitor to the exhibition – the costs required for participation per visitor to an exhibition or fair;

2) cost of one concluded contract – the costs necessary for participation per one concluded contract;

3) costs necessary for participation, which fall on the value of the concluded contract;

4) profitability of the exhibition and fair activity – increase of net profit (net income) after the exhibition and fair activity to the total expenses necessary for participation in the exhibition or fair;

5) the share of buyers in the total number of visitors to an exhibition or fair;

6) the share of buyers in the total number of persons interested in the company's stand (exposition).

The methodology for assessing the feasibility of participating in the exhibition was tested to compare two prestigious international exhibitions: Apparel Sourcing Paris 2024 and Heimtextil 2024. Apparel Sourcing Paris 2024 – the largest European clothing exhibition, which took place in Paris on February 5-7, 2024. The event brings together manufacturers, designers, buyers, fabric suppliers, and other representatives of the textile industry.

Heimtextil 2024 has become a global exhibition in the field of interior textiles, interior design and interior trends. This event determines fashion trends for the upcoming season, provides important impetus for exhibiting companies. The rating of the feasibility of participating in exhibitions was calculated and two prestigious international exhibitions were compared: Apparel Sourcing Paris 2024 and Heimtextil 2024. Based on the calculated integral feasibility indices for international exhibitions: Apparel Sourcing Paris 2024 and Heimtextil 2024, we made conclusions. For the international exhibition

Apparel Sourcing Paris 2024, the integral feasibility index was 0,565, for Heimtextil 2024 – 0,6455. According to the recommendations adopted in Table 1, if an enterprise has a limited financial budget for the implementation of exhibition and fair activities and needs to choose only one event, it is worth choosing the international exhibition Heimtextil 2024, since the integral feasibility index falls within the range of 0,6 – 1.

The management of the company's exhibition and fair activities includes a number of steps and processes aimed at the successful participation of the company in exhibitions and fairs to ensure maximum efficiency and effectiveness.

The main stages of management of exhibition and fair activities in the system of marketing management of an enterprise include:

1. Strategic planning, which involves determining the purpose and goals of the enterprise's participation in exhibitions and fairs, choosing the appropriate strategy and approaches.

2. Analysis and selection of events through market research, search for special events that best meet the needs and profile of the enterprise.

3. Budgeting, which involves the development of a budget for participation in exhibitions and fairs, including the cost of a stand, marketing materials, travel, transportation, and promotion.

4. Preparation for participation, which requires clear planning and preparation of the exhibition stand, development of presentation materials, training of company representatives to interact with visitors.

5. Direct participation in the event – active participation in the exhibition or fair, attracting the attention of visitors, interacting with potential customers, collecting contact information and information to study the demand and needs of the target audience. Market research at an exhibition provides a significant amount of information at a higher speed and with lower total costs than traditional market research. This is a side effect of participation in an exhibition. Exhibitions allow you to track the dynamics of various indicators, identify trends and determine their magnitude, as such events are held regularly.

6. Evaluation of results, which requires analysing the effectiveness of participation, assessing the results achieved, return on investment and assessing the potential for further cooperation.

We propose a scheme of exhibition and fair activities through effective communication between the exhibitor and visitors (figure 2).

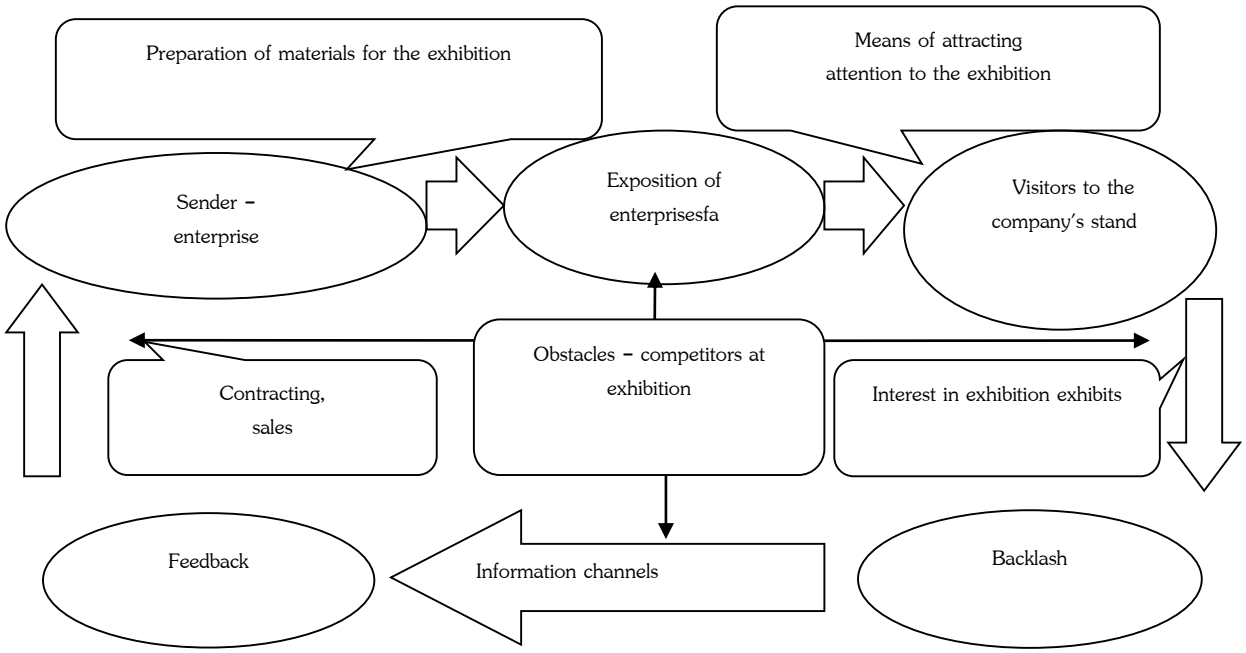

Figure 2. *Scheme of exhibition and fair activities*

Note. Compiled by the authors

To participate effectively in the exhibition, a company needs to form a team of specialists who can provide effective exhibition services and professional advice to visitors, and create conditions for the proper operation of the exposition. The team should be divided into the following roles:

1) the exhibition manager is a person responsible for organising the work of the staff and presenting the exhibition exposition. The head of the exhibition team controls the work of the exposition to implement the approved plans;

2) presenters – people who demonstrate products from the exhibition and establish contact with interested parties;

3) receptionist – a member of the exhibition team who waits for visitors at the edge of the exhibition, greets guests, invites them to view the exhibition, collects business cards of interested parties, distributes information materials to visitors, fills in the meeting calendar and directs visitors to members of the exhibition team responsible for specific areas of work;

4) technical service – employees who assemble and disassemble the stand and other elements of the exhibition, install various devices and control their operation;

5) auxiliary personnel – persons performing auxiliary functions and performing auxiliary tasks.

Members of the exhibition team working on the presentation of the exhibition should be familiar with the objectives of participation in the exhibition.

When making a decision to participate in an exhibition, it is necessary to prepare information and advertising materials that correspond in content and form to the nature of the exhibition. Advertising materials should be designed so that the information attracts the attention of the target audience in terms

of the company's marketing strategy. The materials should also take into account the subject matter of the exhibition and the profile of the audience.

The exhibition and fair activity of an enterprise is a means of:

- maintaining popularity and forming a positive image in a particular area of economic activity;
- search for investments in expansion and development;
- establishing profitable contacts with managers of partner companies for long-term cooperation.

Exhibitions are an effective tool for marketing management of an enterprise, which allows to draw conclusions about:

- sales dynamics and effectiveness of the sales policy;
- market position;
- obtaining innovative ideas from competitors whose activities at the exhibition are as transparent as possible;
- identification of general market trends.

The exhibition and fair activity of an enterprise is a tool of marketing management of an enterprise, which creates preconditions for achieving goals in certain areas, including sales, customer relationship management, public relations, brand strengthening, market research; it provides personal appeal to the target consumer, allows to maintain feedback and demonstrate personal responsibility for their products (Antoniv, 2011).

5. Conclusions and Discussion. Certainly, the organization of exhibition and fair activities is a purposeful endeavor by an enterprise, creating conditions to achieve overarching corporate goals and specific marketing objectives in both national and global markets. Managing exhibition and fair activities within the marketing management system involves decision-making, resource allocation, establishing interconnections among various system elements, and ensuring the overall effective operation of the enterprise.

The study highlights the strategic importance of exhibition and trade fair activities in enhancing enterprise visibility and achieving marketing goals. The developed methodology for assessing the expediency of exhibition participation offers a structured and data-driven approach to decision-making. Given the current geopolitical and economic challenges, virtual and hybrid formats of exhibitions are gaining relevance, although they require further optimisation. Future research should focus on improving the effectiveness of digital exhibition tools, measuring long-term impacts of exhibition participation, and developing comparative frameworks for evaluating international events.

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Digital Tools in Security Governance: Enhancing Public Participation and Deliberative Democracy – the case of Poland

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ABSTRACT

Poland's rapid digital transformation reshapes democratic engagement in national security governance, offering opportunities and challenges. Despite expanding e-governance, digital identification, and consultation tools, barriers like unequal digital literacy and limited transparency hinder inclusive participation. This study, grounded in Habermas' deliberative democracy theory, explores how digital tools can enhance accountability and public involvement in security decision-making. Using a mixed-method approach—expert interviews, student surveys at War Studies University in Warsaw, and analysis of policy documents and media—it reveals limited civic engagement despite widespread use of digital platforms for information access. Institutional trust, influenced by transparency, leadership, and media framing, remains moderate. Experts highlight the potential and limitations of digital deliberative mechanisms for democratic legitimacy. The study recommends developing secure, transparent digital platforms to improve public consultations in security policy-making. While Poland's technological infrastructure supports digital inclusion, uneven participation underscores the need to strengthen capacities for genuine democratic co-creation in security governance.

KEYWORDS: National security, governance, digitalization, deliberative democracy, Poland

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1. Introduction. The digital transformation of public life has significantly reshaped the mechanisms through which citizens engage in democratic processes. In the domain of national security, where decisions often occur behind closed doors, digital tools offer a potential avenue for increasing transparency, accountability, and civic engagement. However, the integration of such tools into security governance presents complex challenges, particularly concerning misinformation, institutional capacity, and ethical oversight.

Governance institutions must change to incorporate wider participation and guarantee open policy responses in an increasingly complex security context that includes cybersecurity, surveillance, public safety, and digital disinformation. Digital technologies have the potential to increase the visibility of security issues in policymaking, promote discussion, and close gaps between government institutions, young civic actors, and technical specialists—especially when they are co-adopted by students and security experts.

Moreover, in the digital era, governments worldwide are increasingly exploring e-governance tools to enhance citizen engagement in public policy, including national security. Yet, the effectiveness of these tools depends heavily on public trust in institutions and the perceived legitimacy of digital participation mechanisms.

From a theoretical perspective, Habermas's Theory of Communicative Action underpins the value of inclusive discourse, stressing that decision-making legitimacy hinges on open, reasoned communication among diverse stakeholders—including novices and specialists (e.g., students and security experts)—within an "ideal speech situation" (McCarthy et al., 2023).

Decidim, an open-source, free digital infrastructure that was first created in Barcelona to support participatory democracy through processes including referenda, public consultations, assemblies, and participatory budgeting, is one notable example (Barandiaran et al., 2024; Aragón et al., 2017). Designed to democratically structure decision-making processes across technological, political, and community aspects, Decidim is an example of a "technopolitical" platform (Barandiaran et al., 2024). In a similar vein, Pol.is uses statistical clustering and machine learning to combine vast amounts of citizen input into logical patterns of agreement and disagreement. Pol.is is an example of how computational tools may scale deliberative processes in high-stakes governance domains (Soper, 2014).

The significance of inclusive, logical discourse as a foundation for valid policy decisions is emphasized by foundational theories of deliberative democracy as defined by academics such as Rawls

and Habermas (e.g., Rawls' "original position" and Habermas' "ideal speech situation") (Polsci Institute, 2024). Furthermore, empirical research demonstrates that the quality and efficacy of civic discourse are strongly impacted by the design of online debate, including choices regarding anonymity, media richness, and moderator responsibilities (Davies & Chandler, 2013).

Although digital platforms for involvement are becoming more and more popular, their effectiveness in real governance settings still depends on the circumstances. Deliberative outcomes, for instance, depend on how well platforms incorporate debate, accountability, and meaningful feedback loops. These observations imply that digital tools such as Decidim and Pol.is have the capacity to revolutionize security governance through the structuring of citizen participation, the development of wider legitimacy, and the facilitation of evidence-based policy debates. However, in order to realize this potential, careful planning, institutional integration, and continuous assessment are needed to make sure that these instruments promote genuine deliberative democracy rather than only token or surface-level involvement.

Poland's complex media landscape and evolving digital infrastructure make it a compelling context to investigate how digital tools can foster civic engagement in the realm of security. This paper investigates how digital tools influence public participation in security-related decision-making by analyzing expert perspectives from academia and practice. The central question guiding this study is: What are the opportunities and limitations of using digital platforms for deliberative democracy in the context of national and public security?

In the context of Polish security governance, this study examines how digital tools might improve deliberative democracy and encourage public engagement. The study, which sits at the nexus of democratic practice and digital transformation, gives special attention to the viewpoints of future policymakers because it acknowledges their potential impact on how governance systems develop over the next several decades. Using a mixed-method study methodology, it incorporates media narratives, structured student surveys, expert interviews, and a thorough examination of national policy texts.

Students from War Studies University's Faculty of National Security in Warsaw participated in the poll, which reveals a complex participation environment. Digital platforms are frequently used for information retrieval and policy discourse monitoring, but they are still mostly underutilized for active civic involvement, such as participating in policy consultations, starting public debates, or contributing to decision-making processes. Moderate levels of institutional trust are influenced by media framing, perceived transparency, leadership skill, and response to public concerns.

The dual nature of digital deliberation is further highlighted by insights from security and governance experts. While it presents new avenues for inclusivity, quick feedback, and cross-sector discussion, it also faces obstacles like low motivation for participation, gaps in digital literacy, and doubts about the veracity of online discourse. Collectively, these results add to larger discussions about how digital spaces might be strategically used to strengthen democratic legitimacy in security policies, but they also highlight structural and cultural obstacles that need to be removed in order for their full potential to be achieved.

2. Policy and Media Context: Digital Transformation, Public Consultation, and Civic Initiatives in Poland and the EU

Poland has made consistent attempts to modernize public administration and advance open government, according to an analysis of national policy documents. However, there are still obstacles in utilizing digital tools for civic engagement, especially in the area of security governance.

In order to promote public engagement, the Open Government Data Review of Poland (OECD, 2015) emphasized the necessity of shifting from compliance-driven data release to a proactive, value-oriented, whole-of-government strategy with greater governance and stakeholder collaboration. Although its framing was more bureaucratic than consultative, the National Integrated Informatization Programme 2020 (PZIP), launched in 2016, sought to enhance citizen communication with public administration through shared digital infrastructure and ICT deployment (European Commission, 2019). More recently, the Digitalization Strategy for Poland 2035, which is presently up for public comment, lays out a comprehensive agenda that includes the adoption of AI technologies, cybersecurity, digital skills development, fair digital transformation, and seamless administrative system integration (Algolytics, 2025; WBJ, 2025). A similar paradigm shift toward systemic societal digitalization beyond traditional e-government services is marked by the Landmark National Digital Strategy, which outlines four key pillars: digital infrastructure, cybersecurity, digital competencies, and technological innovation (Decent Cybersecurity, 2025).

In anticipation of the Digital Networks Act's implementation by December 2025, Poland's 2025 EU Council Presidency agenda places a strong emphasis on bolstering cybersecurity, AI governance, and digital infrastructure (Bird & Bird, 2025). In addition to EUR 12.4 billion in planned measures for advancing quantum computing, artificial intelligence, cybersecurity, and digital literacy, the Digital Decade Country Report recognizes strong fixed internet infrastructure but also points out ongoing deficiencies in citizens' digital skills and limited business adoption of advanced technologies (European Commission, 2025). With around 8 million users, Poland's leading digital identity platform,

mObywatel, exemplifies service innovation by providing digital ID, driver's license, polling station details, car history, and local environmental data. To legitimize such tools, privacy-by-design and openness are still crucial (The Guardian, 2025).

Analyses of documents and the media show that although there are institutional structures for consultation, their actual application varies. The media, civil society, and citizens did not actively participate in establishing data priorities, according to the OECD evaluation (OECD, 2015). Poland has implemented creative local-level methods, like citizens' budgets, according to comparative studies of European public consultation practices; nonetheless, digital e-consultation is still disjointed and uneven when compared to more comprehensive EU models (Council of Europe, 2024). While highlighting modernization and ease, media coverage of programs like as mObywatel frequently echoes privacy campaigners' worries that a lack of transparency could erode public confidence (The Guardian, 2025). According to polls, individual individuals' engagement in digital policy, including consultations on the Digital Markets Act or infrastructure strategies, is still low in the larger EU discourse (Publyon, 2025).

Analysis reveals four important points:

1. Robust but bureaucratic policy architecture – Poland's digital plans offer state-of-the-art services and infrastructure, but they often do not include formalised consultation processes, especially when it comes to security management.

2. Uneven consultation procedures: While formal frameworks exist, they are not always supported by easily accessible, secure digital platforms at the federal level.

3. Tensions in media framing: Reporting highlights the advantages and disadvantages of digital tools, illustrating the interplay between concerns about democratic legitimacy and technological optimism.

4. Comparative EU context: Poland is well on its way to promoting meaningful digital civic engagement, yet there is some lag among groups with lower levels of digital skill, even while following EU trends in infrastructure and service implementation.

The rapid digital transformation of the state has produced a previously unheard-of technical capacity for public engagement, but without an equally robust participatory design, these tools risk reinforcing service delivery models rather than empowering citizens to shape security policy. This combined political and media context highlights a fundamental paradox for Poland, but also in many other European countries.

2.1 Security Governance in Poland

Digital tools are being used more and more in Poland's security administration to both strengthen and limit governmental control over key infrastructures and cyberspace. Cyber resilience is framed as a cross-sectoral responsibility in the Republic of Poland's 2019–2024 Cybersecurity Strategy, which calls for state-level monitoring systems, incident response capabilities, and the protection of e-government identity and service platforms as elements of national critical infrastructure (Government of Poland, 2019).

Operating within the Research and Academic Computer Network (NASK), CERT Polska serves as the operational hub for Poland's Computer Security Incident Response Team ecosystem. As the primary instrument for identifying, coordinating, and responding to cyber occurrences inside the national domain, CERT Polska carries out incident handling, threat analysis, and public advisories (CERT Polska, 2024). National cybersecurity systems complement these operational capabilities by enhancing situational awareness for public agencies and operators of critical services through real-time monitoring and integrated warning (National Centre for Research and Development, 2022).

It is important that online platforms simplify citizen-state interactions in order to improve administrative efficiency. However, they also represent high-value cyber targets whose compromise could erode public trust and disrupt essential services (examples include platforms such as Profil Zaufany / ePUAP, mObywatel) (Gov.pl, 2023a; Gov.pl, 2023b). Consequently, security governance in Poland links cyber defense measures directly to the design and operation of such services. Through a combination of legislative measures, sectoral obligations for vital service operator, CSIRT operations, training, and innovation assistance, the Cybersecurity Strategy places these capabilities inside an integrated governance framework from a policy standpoint.

The NIS Directive, which binds domestic capacities to larger transnational governance regimes, is one of the EU regulations that this framework is in line with (Government of Poland, 2019).

There are three research and policy evaluation implications that follow:

- As demonstrated by CERT Polska's incorporation into national response strategy, the sociotechnical coupling of platforms and governance necessitates concurrent technical and institutional examination (CERT Polska, 2024).
- There is a tradeoff between centralization and resilience; unified identity services and centralized monitoring enhance cooperation, but they may also introduce single points of failure (Government of Poland, 2019).

- The lack of publicly available data on incident response results continues to hinder the measurement of policy execution, underscoring the necessity of more operational metrics openness (CERT Polska, 2024; Gov.pl, 2023a).

3. Empirical research framework

3.1. Methodology

This mixed-methods study was conducted directly and via email during June and July 2025, combining a quantitative survey and qualitative interviews. The quantitative component involved a survey administered to sixty students (N = 60) from the War Studies University in Warsaw, representing various academic years and including both undergraduate and master's students.[1] The instrument comprised 13 questions divided into four thematic sections: (1) Demographics; (2) Institutional Trust; (3) Digital Deliberation; and (4) Future Outlook, with responses including both Likert scale ratings and open-ended qualitative input. The qualitative component consisted of semi-structured interviews with fifteen experts in the field of security governance, including academic professionals from the War Studies University, police practitioners, and analysts. These interviews followed a standard expert questionnaire of 15 open-ended questions, and the responses were thematically analyzed to identify common patterns, divergent views, and emergent insights. Data was coded manually, and themes were synthesized across three broad domains: (1) democratic deliberation and digital tools; (2) risks and ethical considerations; and (3) institutional readiness and future outlook.

The main hypothesis of the empirical research is: "Increasing institutional capacity, digital literacy, and trust is anticipated to move participants toward more optimistic engagement patterns. Digital tools have the potential to improve public participation and deliberative democracy in security governance, but their actual impact is limited by perceived platform safety, institutional trust levels, and cultural attitudes toward privacy."

[1] The empirical analysis presented in this study was conducted during a research stay funded by the STSM Grant at War Studies University, Warsaw, Poland, June 2025, within the framework of COST Action CA22149 — The Research Network for Interdisciplinary Studies of Transhistorical Deliberative Democracy (CHANGECODE)

3.2.Qualitative research – Findings

Table 1.

Participant Demographics

Gender

Category	**n**	**%**
Male	33	55.0
Female	25	41.7
Unspecified	2	3.3

Age Range (years)

Category	**n**	**%**
20	5	9.1
21	37	67.3
24	6	10.9
<35	7	12.7

Study level

Category	**n**	**%**
Graduate students	45	75.0
Master students	10	16.7

Democratic Deliberation and Digital Tools

Experts noted that digital tools can enhance participatory democracy by reducing traditional barriers such as geography and accessibility. Academic respondents cited successful examples like participatory budgeting in Warsaw and the use of the Polis platform in Taiwan. However, few police practitioners expressed skepticism, citing social polarization and limited political cooperation as major obstacles to meaningful digital engagement.

Risks and Ethical Considerations

All participants highlighted the dangers posed by misinformation, disinformation, and manipulation, particularly through artificial intelligence. Several academics warned that digital tools ″can become a dangerous force in the possession of the wrong entities,″ while another emphasized the need

for European-developed platforms to prevent foreign influence. Ethical concerns centered on surveillance and cultural differences in privacy expectations.

Institutional Readiness and Future Outlook

There was consensus that public institutions are not yet adequately equipped to handle secure and inclusive digital consultations. The generational digital divide also impacts both trust and literacy levels, with older populations more vulnerable to misinformation. While academic experts predicted continued growth in digital participation, the practitioners anticipated a decline due to public distrust and unchecked disinformation.

The findings reveal a nuanced landscape in which digital tools hold promise for democratizing security governance but also pose significant risks. The optimism of academic respondents contrasts with the cautious scepticism of the practitioners and analysts, underscoring a gap between theoretical potential and field-level realities. Building institutional capacity, enhancing public digital literacy, and developing robust regulatory frameworks emerge as critical priorities. Furthermore, cultural dimensions of privacy and security must be integrated into digital tool design to ensure global applicability and legitimacy.

Table 2.

Key Themes and Perspectives on Digital Tools in Security Governance

Theme	**Sub-Themes**	**Key Insights**	**Illustrative Quotes**
Digital Tools & Deliberative Democracy	Accessibility, Inclusion	Digital tools broaden access to deliberation, especially for traditionally excluded groups.	"Digital platforms can bring more voices into democratic discussions."
	Political Division	Polarization reduces the feasibility of constructive digital dialogue.	"It is unrealistic to expect society to work together with politicians."
Risks & Vulnerabilities	Misinformation, AI manipulation	Disinformation threatens legitimacy and trust in digital	"False information will lead to a loss of trust in

Theme	Sub-Themes	Key Insights	Illustrative Quotes
		platforms.	this type of solution."
	Foreign Influence	European-designed platforms preferred to avoid foreign data control.	"Chinese influence on some platforms poses a threat to democracy."
Institutional & Public Readiness	Institutional capacity	Institutions lack the technical and governance tools to implement secure digital deliberation.	"In most cases, public institutions are not yet fully equipped."
	Digital literacy gap	Generational digital divide affects participation and trust.	"Digital natives and digital migrants... can complement and learn from each other."
Ethical and Governance Gaps	Legal frameworks	Surveillance and privacy expectations vary across cultures.	"In Europe, surveillance enters a sphere that many want to keep private."
	Regulatory shortcomings	Current legal systems lag behind technological developments.	"There are many legal loopholes."
Policy & Institutional Recommendations	Trust-building	Focus on education, transparency, and European control of digital tools.	"Citizens' safety in the use of digital tools must be ensured."
	Role of academia	Experts should act as educators and mediators.	"Academic institutions should serve as knowledge translators and watchdogs."

Theme	Sub-Themes	Key Insights	Illustrative Quotes
Future Outlook	Divergent projections	Academics predict growth; practitioners foresee decline due to misinformation.	"Such tools will not be used... false information will lead to a loss of trust."

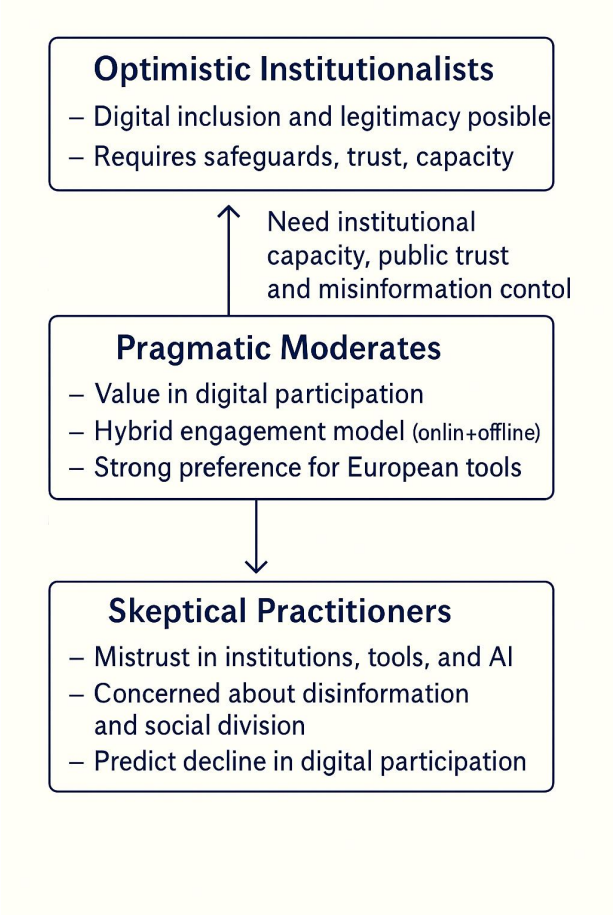

Figure 1. ***Quantitative Analyses – Attitudinal Groups***

According the qualitative analysis, respondents can be divided into three different attitudinal groups: (1) Sceptical Practitioners; (2) Pragmatic Moderates; and (3) Optimistic Institutionalists, in order to examine viewpoints on digital participation, institutional trust, and the role of technology in civic engagement. Thematic coding of open-ended survey results, and interview transcripts produced

these categories. Iterative in nature, the classification procedure used both inductive codes based on participants' own language and emphasis and deductive codes influenced by earlier research on digital democracy

Participants who express optimism that digital inclusion and legitimacy are feasible, given sufficient safeguards, trust-building strategies, and institutional competence, fall under the category of Optimistic Institutionalists. This group's responses focused on how technology might improve institutional legitimacy and public involvement, provided that disinformation is effectively managed and access is fair. Participants that support a hybrid engagement paradigm that combines online and offline resources but acknowledge the importance of digital participation make up the Pragmatic Moderates group. Participants in this group showed a clear preference for platforms created in Europe, pointing to higher perceived standards for data privacy and conformity to democratic values.

Participants in the Sceptical Practitioners group have a strong suspicion of organizations, technology, and artificial intelligence. Disinformation hazards, growing societal divide, and anticipated drops in future internet engagement rates were the main topics of their comments.

The visual framework's flow depicts possible group movement, emphasizing that if institutional capacity, public trust, and misinformation control increase, Pragmatic Moderates may move toward Optimistic Institutionalists. On the other hand, moderates may lean toward the Sceptical Practitioner viewpoint if trust and governance capability deteriorate. Because public perceptions of digital governance are dynamic, this dynamic stance was included in the analysis.

The three-group typology compresses a range of attitudes into distinct categories, even though it offers a helpful heuristic. When analyzing results, it is important to take into account the possibility of overlap, especially between Pragmatic Moderates and the other two groups. The study also recognizes that respondents' opinions are influenced by particular technological, cultural, and political circumstances, which may restrict generalizability.

Table 3.

Participant Demographics

Gender

Category	**n**	**%**
Male	8	53.3
Female	7	46.7

Age Range (years)

Category	n	%
20-35	6	40.0
36-55	7	46.7
Over 56	2	13.3

Profession

Category	n	%
University professors	7	46.7
Analyst	3	20.0
Police practitioners	5	33.3

Institutional Trust

Table4.

Respondents were asked to rate their trust (1–5) in five key institutions

Institution	Avg. Trust	Range
Police	4.33	4–5
National Security Agencies	3.33	3–4
Government Ministries	3.00	3–3
Judiciary	3.00	3–3
Local Government	3.33	3–4

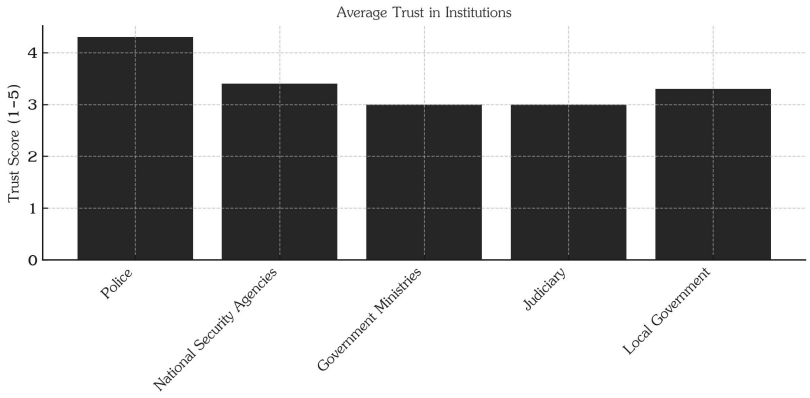

Figure 2.*Average Trust in Institutions Chart*

Table5.

Digital Engagement Perception (Likert Scale Averages)

Statement	**Avg. Score**	**Interpretation**
Digital tools increase transparency	3.67	Moderate
Willingness to join consultations	3.25	Low–Moderate
Belief that digital tools help influence policy	3.67	Moderate
Confidence to share opinions online	2.67	Low
Suitability of digital platforms for security discussion	3.25	Mixed

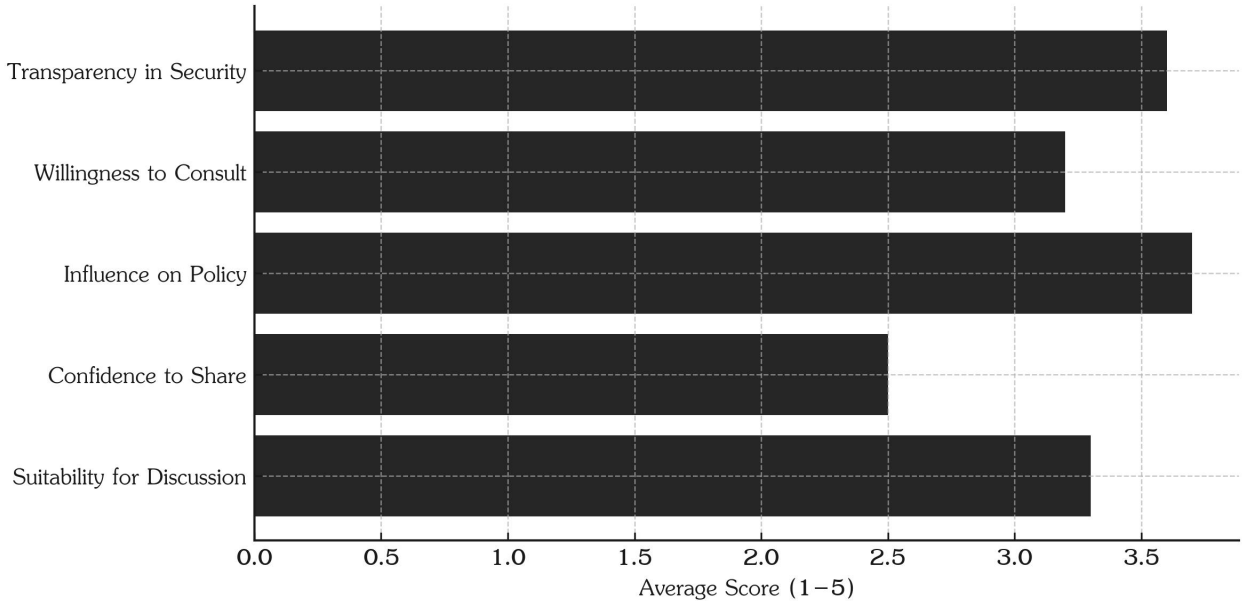

Figure 3. Likert Scale Averages Chart

Participation in Digital Platforms

- Yes: 20
- No: 37
- Unanswered: 3

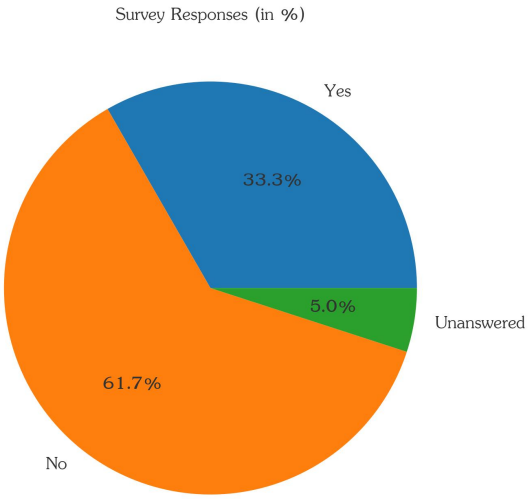

Figure 4. Participation Frequency Pie Chart

Thematic Analysis

1) Factors Influencing Institutional Trust:

- Media polarization and propaganda
- Lack of transparency and political neutrality
- Institutional leadership and competence
- Crisis response and communication quality

2) Concerns About Digital Participation:

- Surveillance and data privacy risks
- Misinformation and extremist narratives
- Limited impact of public input
- Lack of personalization in digital interactions

3) Features Encouraging Digital Civic Engagement:

- Awareness campaigns
- Government-verified platforms
- User-friendly interfaces with anonymity
- Clear evidence of impact from public input

4.Discussion

The data indicates a generational openness to digital engagement, albeit coupled with skepticism about institutional responsiveness and digital safety. While students trust the police more than other institutions, their willingness to engage is contingent on how seriously their input is taken. The findings underscore a need for improved civic digital infrastructure, transparency, and communication strategies from government bodies.

With the police having the highest average trust score (M = 4.33) and a tight range (4–5), the results show a clear hierarchy in respondents' institutional trust, indicating consistently high confidence throughout the sample. Conversely, there was a substantial amount of diversity (3–4) in the level of trust in local government and national security services, which reflected mixed but generally positive attitudes (M = 3.33).

The court and government departments also had lower scores (M = 3.00) with no range variation, indicating consistently neutral levels of trust. A consistent but unenthusiastic appraisal may be indicated by the lack of variance in these two institutions, which could be a reflection of judgments of inefficiency, bureaucracy, or inadequate response.

Overall, the results indicate that people are more trusting of organizations that are seen as directly maintaining public safety (police, security agencies) than of those that are linked to political or administrative roles (ministries, judiciary, local government). This trend is consistent with research showing that institutions that are visible and focused on providing services typically inspire greater public trust. The consistently low variability across a number of assessments, however, points to deeply ingrained perceptions of particular organizations that would be difficult to alter in the near term.

The findings show that respondents' perceptions of digital engagement are largely moderate. A acknowledgment of digital technologies' potential significance in governance and participatory decision-making is indicated by the opinion that they can affect policy (M = 3.67) and promote transparency (M = 3.67). These modest scores also suggest that these advantages are not yet thought to be completely understood or experienced by everyone. Perceptions of platform fit for security debates (M = 3.25) and willingness to participate in consultations (M = 3.25) are in the low-moderate to mixed range, suggesting cautious participation in more time-consuming or delicate participatory activities. This could be a reflection of worries about these engagements' perceived effectiveness, accessibility, or trust.

Interestingly, the lowest confidence score (M = 2.67) was for online opinion sharing, suggesting that this could be a barrier to active engagement. This is consistent with research showing that user expression can be restricted by problems like privacy concerns, fear of retaliation, and low confidence in digital discourse environments. Collectively, these results imply that although digital tools are

appreciated for their openness and power, contextual and psychological elements may prevent more active and transparent online participation.

According to the statistics, just one-third (33.3%) of the Faculty of National Security students said they use digital platforms, whilst the vast majority (61.7%) said they don't, and 5% did not respond. Given the increasing significance of digital tools in academic, professional, and security-related contexts, this comparatively low level of engagement is noteworthy. Concerns about information security and privacy, a lack of institutional support and training for efficient use, or a restricted perception of the relevance of digital platforms to their subject of study are some possible factors. The high percentage of non-participants can indicate a possible lack of digital competency or a cautious approach based on the students' security-conscious mindset. The 5% non-response rate may indicate a lack of clarity regarding the definition of "participation," which emphasizes the need for more precise definitions and education within this student body. These results point to a chance for focused interventions to incorporate safe and intentional usage of digital platforms into the curriculum, bringing students' abilities into line with the needs of the modern workplace.

* * *

According to the findings presented in the qualitative and quantitative research framework, the hypothesis is confirmed, i.e.: "Increasing institutional capacity, digital literacy, and trust is anticipated to move participants toward more optimistic engagement patterns. Digital tools have the potential to improve public participation and deliberative democracy in security governance, but their actual impact is limited by perceived platform safety, institutional trust levels, and cultural attitudes toward privacy."

This hypothesis findings has a direct connection to:

- The three-group typology—Optimistic Institutionalists, Skeptical Practitioners, and Pragmatic Moderates—and the potential for transitioning between them.
- The hierarchy of trust (police at the top, political and administrative institutions at the bottom).
- The measured levels of engagement (online opinion sharing received the lowest scores, while transparency and policy effect received modest marks).
- The student participation gap (low platform use despite relevance to their field).

5.Conclusion. Digital platforms can support public participation in national security governance, but only if implemented with strong safeguards, inclusive design, and continuous oversight. Policymakers should invest in digital literacy programs, support European-led technological infrastructure, and involve academic and civic institutions in shaping ethical frameworks. Future research should expand the participant base and explore longitudinal impacts of digital tools on public trust and democratic

legitimacy in the security domain.Digital platforms hold potential as democratic tools in security governance, especially among educated youth. However, to realize this potential, institutions must enhance transparency, demonstrate responsiveness, and adopt secure, inclusive platforms. National strategies should prioritize civic literacy and integrate localized consultations as a foundation for wider digital participation in security matters.

The results from the both qualitative and quantitative research show a generational pessimism regarding digital safety and institutional responsiveness along with an openness to digital involvement. Government agencies should place a high priority on creating a strong digital infrastructure that guarantees accessibility, security, and openness in order to increase public engagement. Efforts to promote engagement should take advantage of these reliable channels while addressing privacy and the efficacy of digital platforms, as police and security organizations are more trusted than political institutions. Additionally, incorporating training on digital competency—particularly for students who are concerned about security—into academic programs can aid in closing the gap between potential and actual digital engagement. Building trust and promoting more active, meaningful participation in digital civic spaces requires clear communication tactics and improved institutional responsiveness.

Recomendations

1. Create civic awareness campaigns using local digital media and educational institutions.
2. Integrate public consultation modules into national and regional security platforms.
3. Enhance data privacy and moderation on civic engagement sites.
4. Expand training in digital policy and cybersecurity within university programs.

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Flexible Self-Regulation and Resilience as Key Factors in Effectively Overcoming Challenges in Disasters, Terrorism, and Pandemics

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ABSTRACT

The author examines the role of flexible self-regulation and resilience as key factors in successfully overcoming challenges arising during disasters, terrorism, and pandemics. The article discusses the psychological mechanisms underlying these processes and their impact on individuals' ability to adapt to extreme and unpredictable situations. The study highlights the dynamic nature of resilience, emphasizing that it is not a static characteristic but an ongoing process influenced by both internal resources (such as emotional stability and self-efficacy) and external factors (including social support and environmental stability).

The article also explores various strategies for enhancing resilience, such as the development of emotional flexibility, cognitive reframing, and adaptive stress coping mechanisms. Additionally, it emphasizes the importance of fostering psychological resilience in different professional fields, such as healthcare and education, where the ability to manage stress and maintain a sense of control is critical.

The author further analyzes the impact of crises on social cohesion and individual well-being, noting that a resilient mindset can facilitate recovery not only at the individual level but also within communities and organizations. The article considers international experiences with resilience-building programs to illustrate effective interventions in various crisis contexts.

The study concludes with practical recommendations for enhancing resilience and flexible self-regulation through education, training, and policy development, aiming to reduce the psychological impact of crises and ensure long-term recovery.

KEYWORDS: flexible self-regulation, resilience, psychological adaptation, crises, disasters, terrorism, pandemics, emotional stability, stress coping mechanisms, psychological resilience.

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1. Formulation of the problem. In an era marked by increasing global uncertainty, the concepts of resilience and flexible self-regulation have become central to understanding how individuals and communities respond to large-scale crises such as natural disasters, terrorism, and pandemics. These complex and often unpredictable events require not only immediate coping responses but also long-term adaptive strategies that support psychological stability and social functioning. However, existing models of crisis response often overlook the nuanced, dynamic nature of human adaptation, relying instead on binary classifications of individuals as either vulnerable or resilient (Bonanno et al., 2024).

A significant problem lies in the fragmented understanding of resilience as either a personality trait or an outcome, rather than a process that involves continuous regulation of behaviour, emotions, and cognition in response to changing environmental demands. The concept of flexible self-regulation, which includes situational awareness, behavioural adaptation, and psychological flexibility, offers a promising integrative approach, yet remains underutilised in policy and practice (Bonanno et al., 2024; Egozi Farkash et al., 2022).

Moreover, the development of resilience and self-regulatory skills is highly context-dependent, shaped by cultural, structural, and interpersonal factors. For example, individuals living in conflict zones or under long-term stress, such as during the COVID-19 pandemic or the war in Ukraine, often face not only emotional strain but also disruptions to social support, employment, and access to healthcare and education. This multifactorial adversity demands systemic strategies that go beyond individual psychological interventions, incorporating community-based support systems and culturally relevant coping resources (Schwarzer, 2024; Stepanenko et al., 2023).

Another critical issue is the lack of consistent educational and training frameworks aimed at fostering resilience and self-regulation across populations. While some interventions focus on emotional regulation or cognitive restructuring, few are designed to enhance flexible adjustment capacities in real-world crisis scenarios. This gap is especially evident in education, healthcare, and emergency service systems, where personnel must regularly operate under high stress yet often lack institutional support for developing adaptive skills (Ketelaars et al., 2024; Friis-Healy et al., 2022).

Finally, there is a methodological problem in how resilience is assessed and supported. Standardised tools frequently fail to capture cultural and contextual variables, particularly in non-Western or marginalised settings. Without accurate assessment, interventions risk being ineffective or even counterproductive (Terrana & Al-Delaimy, 2023).

In this context, the primary challenge is to develop a comprehensive, interdisciplinary framework that recognises flexible self-regulation and resilience as interconnected and context-sensitive processes. Such a framework must integrate psychological theory, empirical research, and practical tools to foster adaptive functioning at both individual and systemic levels. Addressing this challenge is essential for preparing societies to respond more effectively to future crises and to ensure the psychological well-being and social stability of affected populations.

2. Analysis of recent research and publications. Recent research into resilience and flexible self-regulation in the context of disasters, terrorism, and pandemics reveals an increasing focus on adaptive mechanisms that enable individuals and communities to maintain psychological functioning under extreme stress. Bonanno et al. (2024) argue that resilience is not a fixed trait but a dynamic process of flexible adaptation, involving behavioral, emotional, and cognitive adjustments in the face of uncertain and prolonged threats. Their integrative framework emphasizes the need for a nuanced understanding of human responses beyond simplistic labels of vulnerability or resilience.

Several studies highlight the importance of resource-based approaches to understanding resilience. Egozi Farkash et al. (2022), applying the Conservation of Resources theory, demonstrate how psychological distress during the COVID-19 pandemic correlates with resource loss and how perceived and actual resources serve as buffers. Similarly, Schwarzer (2024) examines coping strategies in populations affected by war, terrorism, and migration, noting that psychological resilience depends heavily on the availability of both internal (e.g., self-efficacy) and external (e.g., social support) coping resources.

The psychological community has also increasingly turned to the idea of flexible self-regulation as a critical factor for resilience. Pellerin et al. (2022) show that individuals with high psychological flexibility—those who can adjust their behaviors and thought patterns in changing contexts—exhibit more resilient mental health trajectories during crises such as the COVID-19 lockdown. Ketelaars et al. (2024), in a comprehensive review of resilience training programs, emphasize that interventions aimed at enhancing flexibility and adaptive capacity significantly improve crisis management in both civilian and professional contexts.

Empirical studies also suggest that resilience operates on both individual and collective levels. Mokline and Ben Abdallah (2021, 2022) distinguish between personal and organizational resilience, identifying different mechanisms activated under stress. Their findings reveal that in organizational settings, such as hospitals or emergency services, collective resilience emerges through shared values, leadership, and coordinated action. This collective aspect is especially relevant during prolonged crises like the COVID-19 pandemic or armed conflicts.

Several Ukrainian studies deepen the understanding of resilience in war-torn or crisis-prone environments. Stepanenko et al. (2023) analyze socio-psychological resilience in the context of war, emphasizing the role of meaning-making, identity, and cultural narratives in maintaining community cohesion. Selezneva et al. (2024) explore how students in conflict zones adapt by reconfiguring their value systems and using existential resources to navigate uncertainty. Similarly, Serdiuk et al. (2024) investigate personal resilience resources in crisis conditions, pointing to the importance of motivation, emotional regulation, and a future-oriented mindset.

Cross-cultural dimensions of resilience are explored by Terrana and Al-Delaimy (2023), who argue for the development of culturally sensitive assessment tools. Their systematic review reveals that many standard resilience measures lack ecological validity when applied across diverse populations, thereby limiting their usefulness in global crises such as pandemics or refugee movements.

Together, these studies suggest that effective strategies for crisis adaptation must integrate psychological flexibility, personal and collective resources, and culturally grounded frameworks. The literature supports the development of resilience-enhancing programs that are tailored to specific contexts and populations, bridging theoretical insights with practical applications. In this regard, flexible self-regulation emerges not merely as an individual skill but as a cornerstone of broader systemic resilience necessary to confront contemporary global threats.

3. The purpose of the article. The purpose of this article is to explore the role of flexible self-regulation and resilience in effectively overcoming psychological and social challenges during disasters, terrorism, and pandemics. It aims to synthesize current interdisciplinary research on adaptive coping mechanisms, psychological resources, and individual and collective resilience. By analyzing empirical findings and theoretical models, the article seeks to highlight key factors that support human functioning in crisis contexts. Ultimately, it strives to provide a comprehensive understanding of how flexible self-regulation and resilience can be fostered to enhance preparedness, recovery, and psychological well-being in the face of extreme adversity.

4. Presenting main material. Bonanno, Chen, Bagrodia, and Galatzer-Levy (2024) argue that resilience in the face of disaster is not a static trait, but a dynamic process of flexible adaptation. Through a thorough analysis of empirical studies on responses to natural disasters, terrorism, and pandemics, they propose a model of "flexible self-regulation," which integrates situational awareness, contextual behavioural adjustment, and psychological flexibility as core elements of resilience. Their findings challenge the traditional dichotomy between vulnerable and resilient individuals by demonstrating that resilience is far more common than previously assumed, and that the majority of people demonstrate adaptive functioning even in high-stress conditions. Moreover, the model suggests that the ability to shift regulatory strategies according to changing demands—rather than relying on rigid coping styles—is essential for psychological adjustment. Importantly, the scholars emphasise that adaptive coping is shaped by individual differences in perception, neurocognitive flexibility, and emotion regulation capacities, rather than by the sheer magnitude of the stressor (Bonanno et al., 2024). This highlights the need for interventions that enhance flexibility rather than enforce prescriptive coping norms.

Echoing the idea of adaptive self-regulation, Egozi Farkash et al. (2022) apply the Conservation of Resources (COR) theory to examine resilience and psychological distress during the COVID-19 pandemic. Their longitudinal research reveals that individuals with access to psychosocial and material resources—such as stable employment, social support, and a sense of control—experience lower levels of psychological distress. The authors highlight the cumulative nature of resource trajectories: resource loss leads to further

vulnerability, while resource gains create protective spirals that enhance resilience. This insight reframes resilience not as a purely internal process but as an outcome shaped by structural inequalities and social capital. Egozi Farkash et al. (2022) stress that protective interventions must therefore address both personal and systemic domains, advocating for policies that preserve key resources during crises. Their findings integrate well with Bonanno et al.'s (2024) model, as both studies underscore flexibility and environmental context as foundational to adaptive functioning.

Friis-Healy and colleagues (2022) focus on promoting resilience among individuals with severe mental health conditions during the pandemic, offering a clinical perspective. Through a combination of psychoeducational sessions, cognitive-behavioural techniques, and supportive therapy, they observed improvements in patients' self-regulation, emotional tolerance, and symptom stability. The authors argue that resilience can be cultivated even in populations traditionally considered highly vulnerable, provided that interventions are tailored to individual cognitive capacities and emotional needs. The study also shows that therapeutic alliance—marked by trust, empathy, and mutual goal-setting—was a critical mediator of positive change. These findings support the conceptualisation of resilience as an emergent property that can be fostered through relational and structural support systems (Friis-Healy et al., 2022).

Ketelaars, Gaudin, Flandin, and Poizat (2024) contribute a programmatic approach to resilience-building through training. Their review of critical situation management training programmes reveals that resilience is enhanced most effectively via scenario-based learning, emotional self-monitoring, metacognitive reflection, and the deliberate cultivation of support systems. Importantly, their meta-analysis finds that generic resilience training is less effective than context-specific interventions tailored to the stressors individuals are likely to face. They also report that embedding resilience training in institutional culture—whether in healthcare, emergency services, or education—results in broader collective benefits, such as reduced burnout and increased organisational commitment. This suggests that resilience is scalable, both individually and systemically, when rooted in experiential learning and embedded social frameworks (Ketelaars et al., 2024).

The organisational aspect of resilience is further explored by Mokline and Ben Abdallah (2021; 2022) in their two-part investigation. In their first study, they analyse how individual employees adapt during workplace crises and identify autonomy, transparent communication, and interpersonal trust as key facilitators of resilience. Their second article shifts focus to collective resilience, examining how teams and organisations maintain functional continuity under uncertainty. They introduce the concept of "resilient culture," where shared mental models, distributed leadership, and psychological safety contribute to the organisation's capacity to withstand shocks. Their research is particularly relevant in today's volatile work

environments, underscoring that resilience extends beyond personal traits to encompass relational dynamics and institutional practices (Mokline & Ben Abdallah, 2021; 2022.

An important, yet often overlooked, dimension of flexible self-regulation and resilience lies in the domain of psycholinguistics — specifically, in how emotional intelligence influences communicative effectiveness during crises. Recent studies in this area, including research on the psycholinguistic mechanisms of emotional intelligence's impact on communicative effectiveness, suggest that the ability to perceive, understand, and linguistically regulate emotions plays a critical role in adaptive responses to high-stress interactions.

In emergency and disaster contexts, effective communication becomes not only a means of information exchange but also a psychological resource for regulating collective fear, uncertainty, and distress. Individuals with high emotional intelligence can adjust their language use—tone, syntax, emotional lexicon—to de-escalate tension, foster empathy, and maintain cooperation, even under extreme pressure. These psycholinguistic skills are integral to both flexible self-regulation and social resilience, as they mediate the emotional tone of interactions and influence group cohesion.

Integrating these insights into resilience-building frameworks can help shape more effective communication training for healthcare providers, educators, and emergency personnel. It also underlines the need for interdisciplinary approaches that combine psychological resilience with communicative competence grounded in emotional intelligence (Hudzenko et al., 2024).

Pellerin et al. (2022) provide empirical insight into individual trajectories of resilience during the French COVID-19 lockdown. Using longitudinal psychological assessments and structural equation modelling, they identify three main patterns of adjustment: stability, deterioration, and recovery. Their data show that individuals with high dispositional flexibility, robust emotional regulation skills, and access to social support were more likely to maintain psychological stability. Interestingly, the researchers also note that some participants shifted from deteriorating to recovering states, indicating that resilience is not fixed but malleable over time. Their findings reinforce the importance of psychological and social scaffolding during prolonged stress and support the conceptualisation of resilience as a non-linear, developmental process (Pellerin et al., 2022).

From a cross-cultural perspective, Schwarzer (2024) synthesises evidence from studies conducted in war zones, among migrants, and in contexts of terrorism, to argue that resilience must be understood as culturally mediated. He shows that coping strategies effective in one culture may be counterproductive in another, and that constructs such as "emotional control" or "autonomy" are not universal markers of

resilience. Instead, he highlights culturally specific protective factors such as religious beliefs, communal narratives, and intergenerational solidarity. Schwarzer calls for the decolonisation of resilience research and encourages the development of culturally grounded frameworks that integrate spiritual, historical, and communal dimensions (Schwarzer, 2024).

Similarly, Selezneva, Abakumova, and Sotnikov (2024) study students living in military conflict zones and reveal that resilience among this group is closely linked to meaning-making processes and transformations in the value-semantic sphere. Through phenomenological analysis, they identify existential reflection, goal re-prioritisation, and the development of spiritual perspectives as key adaptive responses. The authors argue that the instability of external reality forces individuals to rely on internal resources, particularly those rooted in identity, worldview, and future orientation. This perspective is especially valuable for understanding resilience in extreme contexts, where traditional supports may be absent or disrupted (Selezneva et al., 2024).

Serdiuk and colleagues (2024) reinforce the role of intrapersonal resources in resilience, focusing on internal control, temporal perspective, and value systems in conditions of chronic uncertainty. Their mixed-methods study shows that individuals who possess a clear sense of life purpose, orientation toward the future, and belief in personal efficacy are better able to regulate affect and behaviour during crises. Their data confirm that resilience is not merely reactive but can be proactively maintained through value coherence and self-determination. The authors argue for a model of resilience that integrates existential motivation with cognitive and emotional regulation capacities (Serdiuk et al., 2024).

The foundational contribution by Southwick et al. (2014) remains a cornerstone for contemporary resilience research. Their multidimensional framework integrates biological, psychological, social, and cultural domains, positioning resilience as an evolving process rather than a fixed state or trait. They call attention to genetic and neurobiological predispositions but emphasise that environmental factors and personal experiences ultimately shape resilience outcomes. Their model differentiates between resilience as a trait (dispositional optimism, for example), as a process (adaptive self-regulation), and as an outcome (successful adjustment). This tripartite approach cautions against simplistic definitions and encourages comprehensive, systemic analyses of resilience phenomena (Southwick et al., 2014).

Stepanenko et al. (2023) make a significant contribution by contextualising resilience within Ukrainian socio-political realities. Analysing empirical data from populations affected by war-related stress, they argue that resilience is deeply intertwined with national identity, collective memory, and cultural narratives of resistance. Their theoretical synthesis bridges Western and Eastern psychological traditions, highlighting the role of shared historical experience and community-based meaning-making in sustaining mental health.

By foregrounding cultural and historical context, their work challenges universalist assumptions in resilience research and calls for more situated, context-sensitive frameworks (Stepanenko et al., 2023).

Finally, Terrana and Al-Delaimy (2023) offer a systematic review of resilience measurement tools across cultures. Their meta-analysis reveals that many widely used instruments lack cultural sensitivity and fail to capture communal, spiritual, and historical dimensions of resilience. They advocate for the development of culturally adapted measures that incorporate collective values, interdependence, and traditional knowledge. Their study is especially relevant for international research and humanitarian work, where the risk of misinterpreting resilience indicators is high. Their work underscores that resilience must be understood not only as a psychological phenomenon but also as a socio-cultural construct (Terrana & Al-Delaimy, 2023).

In addition to the theoretical and empirical advances, some scholars advocate for applied frameworks that link resilience with public health strategies. For instance, Schwarzer (2024) recommends integrating resilience training into healthcare education and professional development, emphasising its role in both individual well-being and institutional sustainability. Ketelaars et al. (2024) support this view by demonstrating that resilience education can enhance not only stress tolerance but also ethical decision-making and team cohesion under pressure.

Table1.

Resources of Individual Psychological Resilience

Resource Category	**Specific Examples**	**Source**
Internal Resources	Emotional stability, self-efficacy, cognitive flexibility, motivation	Bonanno et al. (2024); Serdiuk et al. (2024)
External Resources	Social support, stable employment, access to education and healthcare, preservation of cultural identity	Egozi Farkash et al. (2022); Schwarzer (2024); Stepanenko et al. (2023)

Thus, the reviewed studies collectively illustrate that resilience is not a singular construct but a multifaceted, adaptive, and context-dependent process. It involves intrapersonal, interpersonal, organisational, and cultural resources that enable individuals and communities to cope with crises and grow through adversity. Whether in the face of war, disaster, or a pandemic, resilience emerges not simply from inherent traits but from dynamic interaction with the environment, social structures, and meaning systems. This holistic

understanding is crucial for designing effective interventions, policies, and educational programmes that aim not only to protect mental health but to foster human flourishing amid instability.

5. Conclusions. Current research on resilience and flexible self-regulation in the context of disasters, terrorism, and pandemics confirms that effective adaptation to large-scale crises is not determined solely by individual traits or isolated interventions. Instead, resilience emerges as a dynamic, multifactorial process shaped by psychological flexibility, resource availability, cultural context, and systemic support structures.

First of all, it is evident that resilience should not be perceived as a fixed personal attribute but as a developmental and context-sensitive capacity. Studies by Bonanno et al. (2024), Pellerin et al. (2022), and Serdiuk et al. (2024) demonstrate that individuals' ability to adapt is closely linked to the flexibility of their self-regulatory systems—including cognitive, emotional, and behavioural mechanisms—that enable real-time responses to shifting demands.

Second, both empirical and theoretical studies emphasise the critical role of environmental resources and social structures in supporting resilience. The Conservation of Resources theory (Egozi Farkash et al., 2022) and the organisational resilience models proposed by Mokline and Ben Abdallah (2021; 2022) highlight that institutional and community-level conditions—such as social support, economic security, and transparent leadership—can either enhance or undermine adaptive functioning in crisis.

Third, resilience must be understood as both an individual and collective phenomenon. Research from Schwarzer (2024), Stepanenko et al. (2023), and Terrana and Al-Delaimy (2023) indicates that cultural narratives, communal identity, and spiritual resources significantly influence how people interpret and respond to adversity. This supports a shift from individualised interventions to culturally grounded, system-level approaches.

While much of the literature focuses on individual resilience, it is equally important to consider collective resilience—the capacity of communities, groups, or organizations to adapt, recover, and even grow in the face of adversity. Collective resilience involves the development of shared coping strategies, mutual support networks, and collective meaning-making processes that strengthen communal responses to crises.

This dimension becomes especially salient in large-scale emergencies such as pandemics, natural disasters, or war, where the ability of communities to function cohesively and mobilize shared resources can significantly influence recovery outcomes. Research by Mokline and Ben Abdallah (2022) highlights the role of distributed leadership, shared values, and coordinated action in building organizational resilience, while Stepanenko et al. (2023) emphasize how cultural narratives and collective identity serve as protective factors in war-affected communities.

Incorporating collective resilience into intervention frameworks can enhance not only individual well-being but also societal stability. Community-based programs that promote trust, solidarity, and participatory decision-making can strengthen both psychological and structural resilience. Thus, future research and practice should further explore how systemic, cultural, and relational factors contribute to collective capacities for coping with adversity.

Fourth, findings from Ketelaars et al. (2024) and Friis-Healy et al. (2022) suggest that targeted training in flexible self-regulation—particularly when integrated into educational, healthcare, or emergency response systems—can strengthen both personal and institutional resilience. Scenario-based learning, emotional monitoring, and metacognitive strategies are especially effective in preparing individuals and groups for high-stress environments.

Although the concepts of *flexible self-regulation* and *resilience* are thoroughly discussed at the conceptual level, the article would benefit from a more precise operationalization of these constructs for empirical application. To enhance the practical relevance and testability of the framework, it is important to define clear indicators and measurable dimensions for both terms.

Flexible self-regulation could be operationalized through variables such as cognitive flexibility, emotional regulation capacity, behavioral adaptability, and situational awareness—each of which can be assessed using standardized psychometric tools or behavioral observations. Similarly, *resilience* might be measured through established scales capturing psychological stability, recovery speed after stress, and the capacity to maintain goal-directed behavior under pressure.

Providing such specific operational definitions would strengthen the study's applicability in real-world settings, including psychological assessment, training design, and policy development. Moreover, it would allow for more rigorous empirical testing and cross-cultural comparison of resilience-building interventions.

Finally, methodological limitations in measuring resilience across diverse populations point to the need for culturally sensitive assessment tools. Without valid measurement, interventions risk being ineffective or culturally inappropriate. As shown by Terrana and Al-Delaimy (2023), future research and practice must prioritise the development of inclusive frameworks that reflect diverse worldviews, values, and resilience pathways.

Table 2.

Summary of Methods, Their Purposes, Target Audiences, and Effectiveness

Method	**Purpose**	**Target Audience**	**Effectiveness**
Scenario-Based Learning	Enhancing adaptability in crisis	Emergency service workers, healthcare staff	High (Ketelaars et al., 2024)
Psychoeducation + CBT	Improving emotional stability	Individuals with mental disorders	Moderate/High (Friis-Healy et al., 2022)
Metacognitive Reflection	Self-observation and flexibility	Students, educators	High (Pellerin et al., 2022)
Culturally Sensitive Approaches	Increasing relevance	Refugees, minority group members	Essential (Terrana & Al-Delaimy, 2023)

Note. This table presents a summary of each method along with its purpose, intended target audience, and an assessment of its effectiveness.

In conclusion, fostering resilience and flexible self-regulation requires a comprehensive, interdisciplinary approach that integrates psychological, social, cultural, and systemic dimensions. This approach should inform the design of educational programmes, clinical practices, and public policies aimed at preparing societies for future crises. Only by embracing the complexity of human adaptation can we ensure meaningful support for individuals and communities facing the psychological and social consequences of disasters, terrorism, and pandemics.

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Digital deconstruction of tradition: religion and family values in the network environment

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ABSTRACT

The article is dedicated to analyzing the impact of digitalization on the transformation of religious and family traditions in the context of network society. The focus of the research is the deconstruction of sacred narratives and the reinterpretation of family roles under the influence of information and communication technologies. The author examines how digital platforms are transforming ritual practices, changing modes of spiritual education, and complicating the processes of intergenerational transmission of religious and moral norms.

The digital age is giving rise to new configurations of interaction between the individual, the family, and religious institutions, disrupting the traditional hierarchy of the sacred. The online environment shapes alternative socialization mechanisms where faith takes on a personalized and fragmented character, and the family functions in hybrid communication formats that combine physical presence with virtual practices. The article explores the adaptation of religious institutions to the digital logic of perception, specifically the broadcasting of services, virtual participation in rituals, and online communities of believers. In a family context, the changes in leisure activities, rituals, authority, and religious education through digital media are emphasized.

Within the framework of an interdisciplinary approach (religious studies, sociology, anthropology), key challenges are outlined: the risk of superficial religious experience, the rise of digital addiction, the fragmentation of collective memory, and the ethics of online education. At the same time, new possibilities are highlighted: accessibility of spiritual knowledge, flexibility in forms of participation, and the expansion of tools for transmitting values. Digitization not only adds new media to traditional forms of interaction but also radically changes the mechanisms of identity formation, religious affiliation, and the structuring of the sacred in everyday life.

KEYWORDS:digital deconstruction, transformation of family and religious practices, the sacred, digitization, religion, family, virtual religiosity, digital family, digital media, socialization.

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1.Formulation or the problem. Modern society is undergoing a phase of intensive digital transformation, encompassing all spheres of human activity – from economics and politics to culture, education, and religion. The issue of adapting traditional social institutions, particularly religious communities and the family, to the new conditions of the network environment is becoming particularly relevant. Ignoring digital processes can lead to an exacerbation of the identity crisis, the degradation of family relationships, and the weakening of mechanisms for spiritual succession, posing a risk to the preservation of cultural and religious continuity.

Digitalization is radically changing the structure of social institutions, influencing forms of communication, methods of socialization, and the construction of identity. Religion as a form of sacralization of cultural experience faces the challenge of a hybrid reality in which the sacred is combined with digital technologies, and faith takes on mediatized and fragmented forms of expression. Digital media are transforming ritual practices, symbolism, and formats of spiritual communication, blurring the boundaries between collective and personal religiosity.

The problem becomes particularly relevant in the context of global challenges such as the COVID-19 pandemic and the Russian-Ukrainian war, which have accelerated the processes of digitalization and demonstrated both the opportunities and limitations of virtual forms of religious and family interaction. The rapid development of digital technologies is creating a new information and communication reality, significantly changing the ways spiritual values are transmitted. The internet, social media, artificial intelligence (AI), and virtual reality are changing the ways people interact with religious practices and family values. In this context, the question arises: how does digitalization affect religious practices and family models? Is it a tool for renewing traditions, or a mechanism for deconstructing them?

Digitalization creates both new opportunities to strengthen religious and family ties and risks associated with the loss of traditional forms of interaction. For example, virtual religious services and online family communication expand access to spiritual and social resources, but can weaken feelings of community and emotional closeness. Today, the digital reality doesn't just complement everyday life; it actively shapes it, changing the ways we communicate, spend our leisure time, learn, and even perceive the world. The family, being the primary agent of socialization and the transmission of religious beliefs, is facing unprecedented challenges and transformations under the influence of the digital environment. These changes are not limited to altering communication methods or leisure activities; they affect the

very structure of family relationships, the hierarchy of authority, identity formation, and the nature of religious practice.

In the context of rapid digitalization, traditional values and practices of religion and family are undergoing profound transformation. On the one hand, technology opens up new ways of communicating, creating, and maintaining valuable and spiritual connections; on the other hand, it poses risks of losing "living" social practices and spiritual depth. This poses the most important challenges for science and society. What are the mechanisms of influence of digital formats (online communities, streaming of religious services) on religious identity and practices? How are digital formats changing parent-child relationships and family traditions? What challenges and opportunities accompany the transition of religion and family into the digital space for the practice and preservation of values? These questions are related to important scientific tasks: rethinking socialization, adapting institutions, and the reception of spirituality against the backdrop of technological changes.

2.**Analysis of recent research and publications.**Contemporary research on the impact of digitalization on religion and family encompasses a wide range of disciplines. In the field of religious studies, scholars like H. Campbell, W. Bellar emphasize that digital technologies are creating a new form of religiosity – "digital religion" – which is characterized by virtual communities and online practices (Campbell & Bellar , 2023). Other researchers, such as P. Chain, point to the role of social media in popularizing religious content, but also note the risk of spreading misinformation and simplifying spiritual teachings (Cheong , 2011).

In the context of family studies, works such as D. Boyd's focus on the impact of digital technologies on family communication. At the same time, S. Livingstone's work shows that digital technologies provide families with new tools for educating and raising children, but they also require parents to be digitally literate (Livingstone & Blum-Ross, 2022). Modern research by H. Campbell and T. Hutchings highlights several key areas: digital religiosity as a new phenomenon, the transformation of family religiosity under media influence, and intergenerational conflict in digital religious education (Hutchings, 2017).

The theoretical basis of the research is the concept of social transformation developed by P. Sztompka, which views social change as a complex process encompassing structural, cultural, and agentic components. Contemporary scientific works (e.g., the works of M. Castells, Z. Bauman, Yu. Harari) extensively cover the global changes brought about by digital technologies, touching upon issues of identity transformation, the nature of social connections, and ethical dilemmas (Bauman , 2003). S. Holloway and G. Valentine investigated the transformation of childhood under the influence of digital technologies (Holloway & Valentine , 2003). Digital technologies are viewed not as an external influencing factor, but as an element of the institutional environment that is simultaneously shaped by and shapes social practices. Qian Yu identifies three levels of influence: micro-social, functional, and symbolic, where digital

platforms are changing routine family practices and rituals and creating new forms of intimacy (Qian &Hu , 2024).

In our opinion, it's also worth mentioning sources that focus on the digital transformation of family practices in the 21st century, including religious aspects, intergenerational communication, and the impact of technology on intimacy and rituals: K. Barrie, J. Bartkowski, and T. Haverda have researched intergenerational patterns of digital communication within families and how they are changing religious and emotional connections (Barrie et al.,2019), K. Balleys, O. Martin, and S. Jochems conducted a sociological analysis of how digital practices are transforming family norms, including religious rituals, children's autonomy, and parental control (Balleys et al., 2018), A. McDonald, M. Golden, and K. Twamley introduced the concept of "platformised relationality" to describe how digital platforms are changing intimacy, care, and religious practices within families (McDonald et al., 2024), and Q. Fu and Y. Zhang analyzed how digital resources within the family influence children's emotional development, including religious and educational practices (Fu &Zhang, 2024).

An analysis of the scientific literature reveals several unresolved aspects of the problem: accompanying transformations of family and religion in the digital space, the impact of digitalization on intergenerational families and the transmission of religious values, the role of digital technologies in shaping a new understanding of ritual and practice, aspects of the interaction between digital culture and family spiritual life, the role of religious institutions in supporting families in the digital space and adapting intergenerational spiritual transmission, the specifics of family digital religiosity, and the long-term impact of digitalization on the transmission of religious values.

Unresolved aspects of the problem also include the ontological status of the digital sacred, the decomposition of institutional religiosity within the family, the digital religious socialization of children, algorithmic ethics in family spiritual life, the hybridization of rituals and transformed family ceremonies, post-intimacy, and digital faith.

3.The purpose of the article is to analyze the impact of digital transformation on sacred meanings, family religiosity, and ritual practices, to identify new forms of spiritual experience and their social and cultural legitimation in the context of a post-secular society.

4.Presentation of the main material. The digital revolution of the 21st century has fundamentally changed all spheres of human life, including such conservative institutions as religion and family. Traditional forms of religious practice are facing the need to adapt to the virtual space, where new models of spiritual communication and religious experience are being formed. The family, as a basic social institution, is undergoing profound transformations related to changes in communication practices, forms of leisure, and ways of maintaining family ties.

Digital technologies have fundamentally changed the nature of family communication and the ways in which family ties are maintained. Messaging and video calls allow families to stay connected regardless of geographical distance, creating new forms of closeness and presence. Social media is becoming a space for co-creating family history through the sharing of photos, videos, and memories (Larsen, 2004)

Digital technologies significantly impact children's socialization processes and the formation of parent-child relationships. Parents face new challenges in digital parenting, including managing screen time, ensuring online safety, and developing digital literacy in children. Educational apps and online platforms are expanding opportunities for family learning and child development. However, excessive use of digital devices can negatively impact the quality of family time and the depth of interpersonal communication. The phenomenon of "digital autism" – immersion in the virtual world at the expense of real communication – is becoming a serious problem for modern families.

Digital technologies are contributing to the emergence of new models of family organization and labor relations. Remote work and flexible schedules allow parents to spend more time with their children and be more actively involved in family life. Digital platforms for finding nannies, tutors, and other services are transforming the system of family outsourcing. Online dating is changing traditional ways of forming couples, expanding the geographical and social boundaries of partner search. Family budget planning and household management apps contribute to more efficient organization of family life.

Digital technologies open up new possibilities for religious education within the family, providing access to a variety of educational resources and interactive materials. Families can participate in online services, study sacred texts using specialized apps, and connect with fellow believers through social media. Virtual pilgrimages and 3D tours of holy sites allow families to study religious history and traditions together. Online courses and webinars on religious topics make theological education more accessible to parents who wish to deepen their knowledge for effective religious upbringing of children (Livingstone et al., 2011).

The digital space is characterized by a high degree of pluralism and competition of ideas, which poses challenges to traditional religious values in the family context. Children and adolescents gain access to a wide range of worldviews through the internet, which can contradict family religious beliefs. Social media and media content often promote values that are incompatible with traditional religious norms (Erstad et al.,2024). Parents face the need to protect their children from content that contradicts their religious beliefs while simultaneously ensuring freedom of information access. Digital technologies can contribute to the formation of individualistic attitudes that conflict with the collectivist values of many religious traditions. Family religious projects, such as creating digital archives of family spiritual history or participating in online charity, contribute to strengthening religious identity and family bonds. Family prayers can include the use of religious apps and online resources. The study of sacred texts is

supplemented by digital commentaries and interactive materials. Religious holidays and rituals are taking on a new dimension through the use of digital technologies for their organization and execution.

Digital platforms allow religious families to find like-minded individuals and create communities of interest. The digitalization of religion and family is impacting forms of social solidarity and public integration. Virtual religious communities can both strengthen and weaken traditional forms of social connection. On the one hand, digital technologies expand opportunities for creating transnational religious networks and maintaining connections between co-believers. On the other hand, the virtualization of religious experience can lead to a weakening of local community ties.

Digitalization is leading to the democratization of access to religious knowledge and family advice, which is changing the role of traditional authorities. Religious leaders are facing competition from online preachers and influential bloggers. Parents are competing with digital sources of information for influence over children. The emergence of new digital authorities – religious bloggers, YouTube preachers, family relationship influencers – creates alternative sources of moral guidance. This can both enrich religious and family experiences and create conflicts between traditional and digital authorities (Yan , 2024).

Digitalization has contributed to the spread of online worship services, video sermons, and spiritual mobile apps. Families have the opportunity to participate in religious life regardless of their location, but there is a risk of religion being perceived superficially as an informational product. Children and teenagers consume spiritual content not from their parents, but through TikTok or YouTube, and furthermore, a new media platform for religious socialization is forming, where "faith influencers" become authorities. Parents are losing their monopoly on spiritual upbringing and must seek new ways of communication. New questions are arising in the digital space: how acceptable are online confessions or "virtual communion"? How to maintain confidentiality in spiritual chats? Can Zoom replace live contact with society?

Churches and other denominations are actively adapting digital resources: creating family and spiritual marathons, parenting schools, online Bibles, and these tools became particularly effective during the COVID-19 pandemic. Christmas or Easter celebrations are increasingly taking place online: on the one hand, this ensures the participation of all members, but on the other hand, it diminishes the ritual depth, especially among young people. In scattered families and diasporas, digital tools are becoming the primary way to preserve religious identity. Live broadcasts from their home temple, online consultations with priests, virtual Saturdays – all of this forms the family's "digital parish."

Messaging apps like WhatsApp and video calls via Zoom, Google Meet, or Microsoft Teams allow you to stay connected with relatives who live far away – this is especially important for families separated by migration or professional obligations. Parents face the need to control the time their children spend online and protect them from unwanted content, such as violence or misinformation. At the same time, digital technologies provide access to educational resources that can contribute to children's development.

For example, platforms like Khan Academy or Coursera offer courses that families can use to learn together.

Virtual reality and the metaverse open up new possibilities for family interaction. Families can gather in virtual spaces for shared activities like holidays or games. However, this raises questions about the authenticity of such interactions and their impact on emotional bonds. Many religious organizations offer online courses on family ethics, marriage, and child-rearing, actively utilizing digital platforms to counsel families on spiritual upbringing. Social media has also changed the concept of family privacy. Publishing family photos or discussing personal matters online can contradict religious principles of modesty. At the same time, such platforms allow families to share their faith experiences, strengthening religious identity.

Digitalization offers numerous advantages for religion and family. Technology makes religious practices and family connections more accessible, flexible, and inclusive. They allow us to overcome geographical and social barriers, strengthening global religious and family communities. For example, online platforms allow families and religious communities to stay connected in the context of global mobility. The digital environment contributes to the spread of disinformation, which can distort religious teachings or family ideals. Virtual reality and the metaverse are opening up new horizons for family interaction. For example, families can gather in virtual spaces for shared activities like holidays or games. Digitalization requires parents to develop new competencies, including digital literacy and the ability to balance online and offline life. Social media, messengers, and video calls allow you to stay in touch with relatives who live far away. This is especially important for families separated by migration or work.

Many religious organizations offer online courses on family ethics, marriage, and child-rearing. Such programs help families integrate spiritual principles into their daily lives. For example, Christian, Muslim, and Jewish communities are actively using digital platforms to counsel families on marriage and parenting. Frequent use of technology can weaken personal connections and undermine traditional values. Additionally, the digital environment often contributes to the spread of disinformation, which can distort religious teachings or family ideals. It is important to develop strategies that will allow us to maintain a balance between tradition and innovation. Traditionally, the family served as the primary unit of religious socialization. Through family rituals (baptism, marriage), the individual was integrated into the religious community. However, in the digital age, this model is subject to deconstruction.

The virtualization of religious life is leading to new phenomena: many religious families in the US are using Zoom for communal prayers, and virtual Easter services and iftars are becoming the new norm. In Orthodox families, "digital red corners" are appearing – tablets with icons and prayers. Muslims use apps with the Qibla and prayer times. Unique phenomena are forming: social media as pilgrimage sites (the pages of deceased relatives become digital altars), and the gamification of religious experience (apps like "Bible Quiz" transform the study of sacred texts into a quest).

The digital age poses serious challenges to traditional family religious life. One of the key factors is the defocusing of attention and the fragmentation of religious practice. This often leads to a reduction in the time allocated for shared religious rituals, such as communal prayer, reading sacred texts, or spiritual conversations. Each family member can immerse themselves in their own unique digital "bubble," which contributes to the creation of "parallel worlds" and the individualization of faith. Shared points of contact in religious experience, which were previously formed through shared practice, may weaken as each person consumes their own, often personalized, spiritual content (Spadaro, 2014).

Another serious challenge is the spread of disinformation and the risk of radicalization. Sectarian movements, aggressive ideologies, and false teachings find fertile ground for spreading online, posing a threat to the spiritual health of individual family members and the entire family unit. New ethical and moral dilemmas are also emerging, related to cyberbullying, the formation of digital addiction, the accessibility of unacceptable content (such as pornography), and complex issues of AI ethics. Finally, there is a decline in the role of the traditional authority of spiritual leaders, which can weaken the influence of established religious authorities and institutions in family life.

Despite numerous challenges, digitalization also opens up unprecedented opportunities for family religious life and strengthening faith, which can be actively utilized for adaptation and development. First and foremost, it's about increasing access to religious education and information. The internet provides a wide range of online lectures, courses, webinars, e-libraries, and resources for studying sacred texts, which expands educational opportunities for all family members, regardless of their location or physical limitations. Digital platforms contribute to strengthening communities and developing interreligious dialogue. Online prayers, live streams of services, virtual meetings, and conferences allow community members to stay connected, support each other, and overcome geographical barriers, creating the effect of an "extended presence" of the church in the lives of believers. Global religious communities are being created, fostering understanding and dialogue between different traditions, which was previously extremely difficult (Family Online, 2023).

New forms of missionary work and social service are developing. Digital technologies can also actively support family values. Finally, digitalization contributes to the preservation and transmission of religious traditions. Digital archives, virtual museums, and tours of holy sites allow new generations to learn about the history and heritage of their faith, making them more accessible and appealing. Among the key transformations, we can note both positive (access to global religious resources, new forms of intergenerational dialogue, flexibility of religious practices) and negative (erosion of traditional rituals, commodification of the sacred, digital inequality in the religious sphere).

Digital technologies are also transforming the processes of religious education and spiritual guidance. Online theology courses, virtual libraries of religious literature, and mobile applications for studying sacred texts are expanding access to religious knowledge and making it more personalized.

Social media, messengers, and video conferencing provide constant connection and the possibility of individual spiritual guidance. An analysis of the content of religious social media reveals three main types of religious communication in the digital environment: informational (dissemination of religious information and news), educational (religious teaching and enlightenment), and pastoral (spiritual guidance and support).

Digital technologies have a profound impact on children's socialization processes and the formation of parent-child relationships. Modern parents are facing the need for "digital parenting" – a new form of upbringing that includes managing screen time, ensuring digital safety, and developing digital literacy in children.

One of the key aspects of the interaction between the digitalization of religion and the family is the transformation of religious socialization processes. Digital technologies create new opportunities for religious education within the family, but they also pose challenges for the intergenerational transmission of religious values. Family digital practices play a special role in religious socialization: participating in online services together, studying religious texts using mobile apps, and creating family religious blogs (Horsfield , 2015).

Digital technologies contribute to the emergence of new models of family organization, characterized by greater flexibility and adaptability to changing life circumstances. Remote work allows parents to participate more actively in family life and child-rearing, creating the conditions for the formation of more egalitarian gender roles within the family. The digitalization of religion and family is leading to significant changes in the value system, which can be classified into several areas: the transformation of the concept of authority, the shift in the concept of privacy, the transformation of temporal and spatial boundaries, and the individualization of religious and family experiences.

Table 1.

Comparative Overview of Religious and Cultural Traditions in the Context of Digital Transformation

Aspect	**Christianity**	**Islam**	**Judaism**	**Eastern Societies**
Worship	Church attendance, communal prayer	Mosque attendance, Friday prayer	Synagogue attendance, Torah reading, minyan	Temple rituals, domestic practices, meditation
Beliefs	Trinity, salvation through grace	Monotheism, Qur'an, path of submission	Monotheism, commandments, historical memory	Karma, harmony, polytheism or non-theism

Aspect	Christianity	Islam	Judaism	Eastern Societies
Ethics	Love, mercy, commandments	Sharia, virtue, submission	Halakhic norms, social responsibility	Duty, compassion, nonviolence, harmony
Family	Nuclear family, autonomy	Patriarchal structure, collective responsibility	Partnered families, community-based	Multigenerational family, collectivism, filial piety
Identity	Individual, faith- and choice-based	Collective, umma-based	Diasporic, collective, textually enduring	Role-based, harmonious, linked to social status
Moral Norms	Human rights, ethics of autonomy	Religious duty, ethics of submission	Sanctity, responsibility, commandments	Ethics of harmony, obligation, interdependence
Holidays	Christmas, Easter, Sunday services	Ramadan, Eid al-Fitr, Friday prayer	Sabbath, Passover, Yom Kippur	Lunar New Year, Diwali, Vesak, local ritual calendars
Digital Adaptation	Online services, digital prayers, virtual communities	Digital fatwas, Muslim apps, online sermons	Digital Torah study, online minyans, preservation	Meditation apps, digital rituals, virtual sanghas

Table2.

Analytical Table of Religious and Family Transformations in the Digital Age

Religious Practice	Collective participation, physical presence, ritual as a form of communal experience	Online rituals, individualized participation, gamification of spiritual experience	Religion becomes personalized, losing part of its ritual depth and social cohesion
Family Hierarchy	Vertical structure, authority of older generations	Horizontal communication, influence of digital norms on upbringing	Digital culture blurs generational authority and reshapes parenting models
Moral Orientations	Based on religious texts, traditions, and cultural narratives	Pluralism of values, influence of influencers, algorithms, and trends	Ethical fragmentation emerges, where moral norms become

			situational and platform-dependent
Institutional Trust	High trust in religious and family institutions	Doubts about traditional authorities, search for alternatives online	The digital environment stimulates critical reevaluation of the institutional role of tradition
Family Communication	Personal, direct, emotionally rich	Mediated, fragmented, often asynchronous	Digital platforms alter the quality of family dialogue, reducing emotional depth
Family Roles	Clearly defined (father, mother, children), gender-specific	Blurred, reinterpreted through digital narratives and social media	Role deconstruction leads to new models of family interaction

5.Conclusions. The study revealed that digitalization is not only changing the channels through which the sacred is transmitted, but is also fundamentally transforming the very nature of religiosity and family interaction. The digital environment emerges as a space of individualized faith, fragmented morality, and virtualized ritual, within which traditional forms of religious and family life are gradually losing their normative stability. At the same time, the adaptation of religious institutions to digital culture expands opportunities for inclusion, access to spiritual resources, and participation in transnational religious communities, but it is accompanied by the risk of faith becoming routinized, the symbolic ritual content being simplified, and the intergenerational transmission of religious values being weakened.

Families, functioning in a digital mode, are undergoing changes in parenting models, experiencing a transformation in communication practices, leisure activities, and ways of maintaining family connections. Social roles are being rethought, the authority of tradition is weakening, and new educational tools often lead to dependence or create digital inequality. Online platforms make religious practices more accessible, but at the same time, they undermine traditional community and the depth of religious experience. The adaptation of religious and family institutions to network logic is occurring through various models shaped by cultural, social, and technological factors.

The processes of digitizing religion and family are interconnected and mutually influence each other, especially in the realm of religious socialization and intergenerational transmission of sacred meanings. At the same time, the digital age is shaping new models of social stratification, where digital

inequality can exacerbate or deepen existing social and religious divides. In general, the digital deconstruction of tradition is an ambivalent process: it is capable of both renewing the religious and family fabric of society and deforming its foundations. This tension between preservation and transformation requires further investigation, particularly in the fields of digital spirituality, ethics, and the ontology of networked being.

The main problems include: the commodification of the sacred (paid online confessions), a crisis of authenticity in religious experience, and digital inequality in access to spiritual resources. Digitization creates a paradoxical situation: while destroying traditional forms of religious family life, it simultaneously gives rise to new hybrid practices. Further research could focus on a comparative analysis of practices across different denominations, as well as on the development of ethical principles for digital religious interaction within the family.

Important aspects of research on this topic include: theoretically understanding the concept of the "digital sacred" in the context of the mediatization of faith, private religiosity, and family communication; analyzing the transformation of religious practices within the family (domestic rituals, online liturgies, digital prayers, algorithmic management of beliefs); investigating the influence of digital platforms on intergenerational spiritual interaction; the role of social media in shaping children's beliefs and digital "spiritual mentors"; identifying new formats of family religiosity (hybrid rituals, visualization of faith in digital content, sacralization of media images); and identifying signs of a reinterpretation of sacred space (the emergence of digital saints, memetic symbols of faith, algorithmic amulets).

Among the promising directions for further research, we can highlight the long-term impact of digitalization on religious identity, the development of ethical standards for digital religiosity, comparative studies of the long-term effects of engagement in digital family and religious practices across different denominations, methodologies for integrating digital rituals with offline practices to strengthen intergenerational bonds, digital platforms as spatial-semantic environments for transmitting cultural narratives, and ethical and technological barriers to the use of AI services and the metaverse in religious and family communication.

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In-text citation	(Edkiy natr ZZ,2022a). Edkiy natr ZZ. (2022b)affirmed that...

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Reference list	Edkiy natr ZZ.(2022a). *Who is stronger economically - Russia or the West?* https://dzen.ru/media/yedkiyy/ktosilnee-ekonomicheski-rossiia-ili-zapad 62dc6bb677825969566f15a7?&(In Russian). Edkiy natr ZZ.(2022b). *The explosive effect of Nord Stream.* https://dzen. ru/a/YzPrA0Yuwjj-7a7x?& (In Russian).

Published in different years: In the reference list, arrange the references in the chronological order.

In-text citation	Totska(2011)and Totska.(2017).state....
Reference list	Totska, O. (2011). Statistical waves of the budgetary financing of education and science in Ukraine. *The Annals of the "Stefan cel Mare" University of Suceava, Fascicle of the Faculty of Economics and Public Administration, 11*, 2 (14), 252–257. https://cutt.ly/owJOIXwD. Totska, O. (2017). ABC-analiz bakalavrskykh osvitnikh prohram Skhidnoievropeiskoho natsionalnoho universytetu imeni Lesi Ukrainky **[**ABC-analysis of the bachelor's educational programs of Lesya Ukrainka Eastern European National University**]**. *Economic journal of Lesia Ukrainka Eastern European National University*,4,114–122. https://www.echas.vnu.edu.ua/index.php/echas/ article/view/45/30 (In Ukrainian).

2. Author variations

☐ **Work without author**

With work without the author was given, check to see whether there is a corporate author for that work and consider the source is reliable if no personal author is indicated. if your source is reliable, follow the steps below:

- Replace the author by the article title in both the citation and reference list, abbreviate the work title if it is too long in the in-text citation.

- In every citation for a portion of a work, such as an article, a book chapter, or a webpage the title should place in quotation marks.

- For whole work, such as a book, brochure, or report, italicize the title in the in-text citation.

- For in-text citations and the text of your assignment, capitalize the source title in a headline style

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In-text citation	("Millions of Chinese students",2013). OR In the article "Millions of Chinese students" (2013) ...
Reference list	Millions of Chinese students brace themselves for joblessness.(2020,May 2). *The Economist.* https://www.economist.com/china/2020/05/02/millions-of-chinese-students-brace-themselves-for-joblessness

One – two authors

Every citation should include the name of all author(s).

In-text citation	(Fidas & Sylaiou, 2021). OR Fidas and Sylaiou (2020) found that...
Reference list	Fidas, Cristos., & Sylaiou ,Stella.(2021). *Editorial for Special Issue Virtual Reality and Its Application in Cultural Heritage.* https://www.mdpi.com/2076-3417/11/4/1530

Three – 20 authors

-To avoid confusion, provide as many names as necessary to identify the references, then abbreviate the additional names to et al. in cases when many publications with more than three contributors are shortened to the same in-text citation (et al.);

- All authors must be provided in the reference list.

In-text citation	(Sureda-Negre et al., 2021). OR Sureda-Negre et al. (2020) found that...
Reference list	Sureda-Negre, J., Comas-Forgas, R., & Oliver-Trobat, M. F. (2015). Academic plagiarism among secondary and high school students: Differences in gender and procrastination. *Comunicar, 22*(44), 103-111. https://doi.org/10.3916/C44 2015-11

Corporate author (Group author, Organisations, etc.)

- Organization names must be in full name in citation and the reference list.

- The initial in-text citation should include the full name of the organization, and then can be anonymized.

- When numerous departments are given, chose the unit that is most important for the work as the author.

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In-text citation	**First in-text citation** (World Intellectual Property [WIPO], 2020). OR The World Intellectual Property (WIPO, 2020) reports **Subsequent citations** (WIPO, 2020) OR WIPO (2020) states...
Reference list	World Intellectual Property. (2020). *What's new in WIPO's Internship Program?* https://www.wipo.int/jobs/en/internships/news/2020/news_0001.html

3. REFERENCING LIST EXAMPLE

No.	Reference sources	In-text citation	Reference list
1.	**Book/eBook**	**Structure:** (Author, Year) **Example:** (Bodie et al.,2015)	**Structure:** Author Surname, Initial(s). (Year). *Title of book: Subtitle* (#ed.). Publisher Name. https://doi.org... OR URL ☐ ***For printed books,*** *leave out DOI/URL* **Example:** Bodie, Z., Kane, A., & Marcus, A. (2017) *Investments* (11th ed.). McGraw-Hill Education
2.	**Chapter in an edited book**	**Structure:** (Author, Year) **Example:** (Cardona &Rey,2022)	**Structure:** Chapter Author Surname, Initial(s). (Year). Title of chapter. In Editor Initial(s). Editor Surname (Ed.), *Title of book* (# ed., pp. chapter page range). Publisher Name. https://doi.org... OR URL ☐ ***For printed books,*** *leave out DOI/URL* **Example:** Cardona, P., & Rey, C. (2022). The limits of management by objectives. In P. Cardona & C. Rey (Eds.), *Management by missions: Connecting people to strategy through purpose* (pp. 35–48). Springer International Publishing. https://doi.org/10.1007/978-3-030-83780-8_3.

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3	**Edited Book Chapters** Chapter in an edited book, republished in translation	**Structure:** (Author, Year) **Example:** (Sutch &Pierce,2023) **Example:** (Diadyk ,2021)	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of dictionary or encyclopaedia* (Edition.). URL **Example:** Sutch, P., &Pierce, O. (2023). Practicing Humanity: Humanisation and Contemporary International Political Theory. In H.Williams, D. Boucher, P.Sutch, D.Reidy &A.Koutsoukis (Eds.), *The Palgrave Handbook of International Political Theory. International Political Theory.*(Vol.1,pp.303-320).https://doi.org/10.1007/978-3-031-36111-1_16 **Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of book(edition, page numbers for whole chapter). Publisher.* **Example:** Diadyk, T. *(2021).* Global experience in the development of business education. In O.Kalashnyk, S. Moroz, & I. Yasnolob *(Eds), Quality and safety of products in domestic and foreign trade and trade entrepreneurship: modern vectors of development and prospects: collective monograph* (pp. 145-162*).* Poltava: "Astraya" Publishing House*(*In Ukrainian*).*
4.	**Journal article**	**Structure:** (Author, Year) **Example:** (Prima et al., 2019)	**Structure:** Author Surname, Initial(s). (Year). Title of article: Subtitle. *Title of Journal, volume*(issue), page range. https://doi.org... OR URL **Example:** Prima, R., Honcharuk, O., Prima, D., & Roslavets, R. (2023). Digitalization of education – Trend, strategy, and challenge of the time. *Pedagogical Sciences: Theory, History, Innovative Technologies,* 3(127),183-191. https://doi.org/10.24139/2312-5993/2023.03/183-191
5.	**Journal article in a language other than English (not in English)**	**Structure:** (Author, Year) **Example:** (Romakh, 2021)	**Structure:** Author Surname, Initial(s). (Year). Title of article[trans.] *Title of Journal, volume*(issue), page range. https://doi.org... OR URL ((In Language). **Example:** Romakh, O. (2021). Osoblyvosti ekspertyzy naukovykh robit shchodo vyiavlennia akademichnoi nedobrochesnosti [Specifics of research papers expertize regarding detection of academic dishonesty]. *Scientific Notes of the Institute of*

			Journalism, 1(78), 11–29. https://doi.org/10 17721/2522-1272.2021.78.(In Ukrainian).
6.	**Newspaper or magazine article**	**Structure:** (Author, Year) **Example:** (Chongkittavorn ,2022)	**Structure:** Author Surname, Initial(s). (Year, Month Day). Title of article: Subtitle. *Newspaper or Magazine Title*. URL. **Example:** Chongkittavorn, Kava. **(**2022, November22**)** Three summits jointly boost centrality**.** *Bangkok Post* ,Opinion https://www.bangkokpost.com/opinion/opinion/2443139/three-summits-jointly-boost-centrality
7.	**Press release**	**Structure:** (Author, Year) **Example:** (Board of Investment, 2021)	**Structure:** Author Surname, Initial(s). (Year, Month Day). *Title of press release* [Press release]. URL. **Example:** Board of Investment of Thailand **(**2021**).** *Thailand's New Semiconductor Incentives Timed to Support Rising E&E Investment* **[**Press Release**].** https://www.boi.go.th/index.php?page=press_releases_detail&topic_id=129197.
8.	**Conference paper OR Poster**	**Structure:** (Author, Year) **Example:** (Gupta, 2009) (Suwan-achariya,2023)	**Structure:** Author Surname, Initial(s). (Year, Month Day). *Title of paper* [Type of presentation]. Title of Conference: Subtitle of Conference, Location. https://doi.org... OR URL ☐ ***For Poster,*** *use* [Poster presentation] Gupta, A. K. (2009). *Environment and disasters: Resources, systems and management* [Paper presentation]. Current Science Conference (00113891), New Delhi. http://search.ebscohost.com/login.aspx?direct=true&db=egs&AN=41529360&site=ehost-live. Author Surname, Initial. (Year). Title of paper. In Editor Initial, Surname (Ed.). *Title of book which paper appears in* (page numbers). Publisher. Suwan-achariya, S. (2023). Concept of economic development for prosperity. In G ..Y. Gulyaev (Ed.)*High-Tech, Science, and Education: Topical Concerns, Accomplishments, and Innovations. The proceedings of the XVIII All-Russian Scientific and Practical Conference*(pp. 52-55).Penza.
9.	**Thesis**	**Structure:**	**Structure:**

		(Author, Year) **Example:** (Albor, 2011) (Harris, 2014)	Author Surname, Initial(s). (Year). *Title of dissertation or thesis* [Doctoral dissertation or Master's thesis, Name of Institution Awarding the Degree]. Source Name. URL. **Example:** Albor, C. (2011). *Are poor people healthier in rich or poor areas?: The psychosocial effects of socioeconomic incongruity in the neighbourhood* [PhD thesis, University of York]. White Rose eTheses. http://etheses.whiterose.ac.uk/1595/ Author Surname, Initial. (Year). *Title of dissertation or thesis* [Unpublished dissertation/thesis]. Name of university. Harris, L. (2014). *Instructional leadership perceptions and practices of elementary school leaders* [Unpublished doctoral dissertation]. University of Virginia.
10.	**Webpage**	**Structure:** (Author, Year) **Example:** (Hai Minh, 2019)	**Structure:** Author Surname, Initial(s) or Organisation Name. (Year). *Title of webpage*. Site Name. URL. ☐ ***Webpage – no date**, replace the Year with* (n.d.) ☐ ***Webpage – no author**, use the Organisation Name if available. If No, use the Webpage Title.* ☐ *If the Author Name and Site Name are the same, omit the Site Name* **Example:** Hai Minh. (2019). *New milestone in VN-EU relations.* Government News. http://news.chinhphu.vn/Home/New-milestone-in-VNEU-relations/20196/36969.vgp.
11.	**Dictionary or encyclopedia entry.**	**Structure:** (Author, Year) **Example:** (Downes, 2018)	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Ed.), *Title of dictionary or encyclopaedia* (Edition.). URL Downes, S. M. (2018). Evolutionary psychology. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy.* http://plato.stanford.edu/entries/evolutionarypsychology/
12.	**Blog post**	**Structure:** (Author, Year) **Example:** (Bak-Maier, 2019)	**Structure:** Author Surname, Initial. (Year, Month Date). Title of blog post. *Title of blog*. URL Bak-Maier, M. (2019, March 23). Practical tips for overcoming the fear of failure – and success. *Times Higher Education blog.* https://www.timeshighereducation.com/blog/practical-tips-overcoming-fear-failure-and-success
13.	**Reports/ Government**	**Structure:** (Author, Year)	**Structure:**

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	report/ Organisation report	**Example:** (WORLDBANK, 2022)	Author Surname, Initials. OR Organisation Name. (Year). *Title of report: Subtitle*. Publisher Name. URL. **Example:** WORLDBANK.(2022).*Annual report2022*. https://thedocs.worldbank.org/en/doc/811305cdbaf5310bc659f14b1e49f05c-0090012022/original/AR2022EN.pdf
14.	**Translated books**	**Structure:** (Author, Year) **Example:** (Reinert,2011)	**Structure:** Author Surname, Initial. (Year). *Title in English* (Translator Initial, Surname, Trans.). Publisher. **Example:** Reinert, Eriks.(2011). *How rich countries got rich ...and why poor countries stay poor.*(N.Avtonomova, trans.).Vysshey shkoly ekonomik. .
15	**Republished Or modern edition of a classic book**	**Structure:** (Author, Year) **Example:** (Heidegger, (1961/2008).	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of book*(edition, page numbers for whole chapter). Publisher. (Original work published Year) Heidegger, M. (2008). On the essence of truth (J. Sallis, Trans.). In D. F. Krell (Ed.), *Basic writings* (pp. 111-138). Harper Perennial Modern Thought. (Original work published 1961)
15	**No date**	**Structure:** (Author, n.d.) **Example:** (Bo,n.d.)	**Structure:** Author Surname, Initial. (n.d). *Title of book*. Publisher Name. Bo, P. (Ed.). (n.d.). *Traditional Chinese internal medicine*. People's Medical Publishing House.
16	No page p. is used when the quotation is from one page only. Example: p. 23. pp. is used when the quotation runs on to the next page, with the page range separated with an en dash.	**Structure:** (Author,p) Example: (Stolyarova, 1993 ,pp.231-232). Wood (2018, **13:40**) Parker (2020, **Slide 4**) Frey (2019, **Research, para. 2**)	**Structure:** Author Surname, Initial. (n.d). *Title of book*. Publisher Name. Stolyarova,I.A.(Ed.)(1993). W. *Petty. A. Smith. D.Ricardo.Anthology of economic classics*. M: Econov Klyuch(In Russian). Wood, Z. R. (2018, April). *Why it's worth listening to people you disagree with* [Video]. TED Conferences. https://www.ted.com/talks/zachary_r_wood_why_it_s_worth_listening_to_people_you_disagree_with

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	Example: pp. 23-24. For electronic sources that do not provide page numbers, use the paragraph number. Use the abbreviation 'para.', and follow it with the number.		
17	Bills	**Structure:** (Author, Year) **Example:** Law and Justice Amendment Bill 2004 (Cth) (Law and Justice Amendment Bill 2004 (Cth) cl 22)	**Structure:** Law and Justice Amendment Bill 2004 (Cth).
18	Parliamentary debates (Hansard)	**Structure:** (Author, Year) **Example:** (Victoria, *Parliamentary Debates*, Legislative Council, 14 December 2017, 6854)	**Structure:** Jurisdiction, *Parliamentary Debates*, Chamber, Full Date of Debate, Page Number (Name of Speaker).

Table3.

The significant contribution of the Russian economy to global GDP

Draws attention to the upstream and midstream supply chain connectivity of food sourcing and products.	Over 30% of the "fertilizer basket" in Europe comes from Russian fertilizer exports.
It is the only country that can supply petroleum, gas, tungsten, titanium, aluminium, uranium, and rare earth minerals to any other country.	Approximately 19.5% of global grain exports are under Russian control.

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Russian gas is essential to the survival of European industry. It is an important player in the world of raw materials, and countries that consume it may face serious difficulties if there are supply disruptions	It exports more nickel than any other country (20.4%). Products made of semifinished steel (18.8%), 30% palladium and 40% enriched uranium
Nearly one-third of the natural resources currently in Russian reserves are used by the global economy as raw materials for transportation and industrial processing.	The country is well-positioned to provide low-cost raw materials, raw material processing, and transportation logistics benefits to China and Europe.

*Note.*The author's summary and collection.

unprogressive.

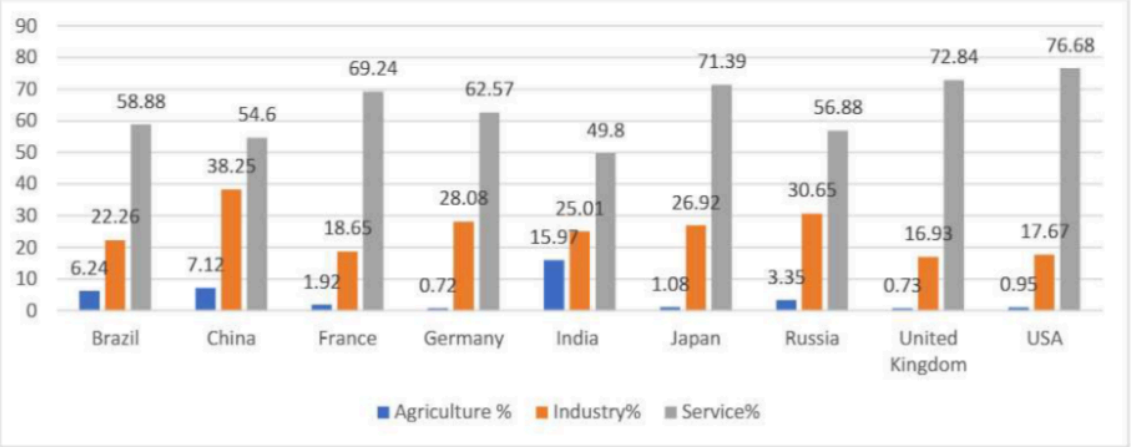

Figure 1.

Proportions of economic sectors in the gross domestic product (GDP) in selected countries in 2023

Note. From "*Proportions of economic sectors in GDP in selected countries 2023,*"by Aaron O'Neill, 2025(https://www.statista.com/statistics/264653/proportions-of-economic-sectors-in-gross-domestic-product-gdp-in-selected-countries/) In the public domain.

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(JusmineUPC 12)in Figure

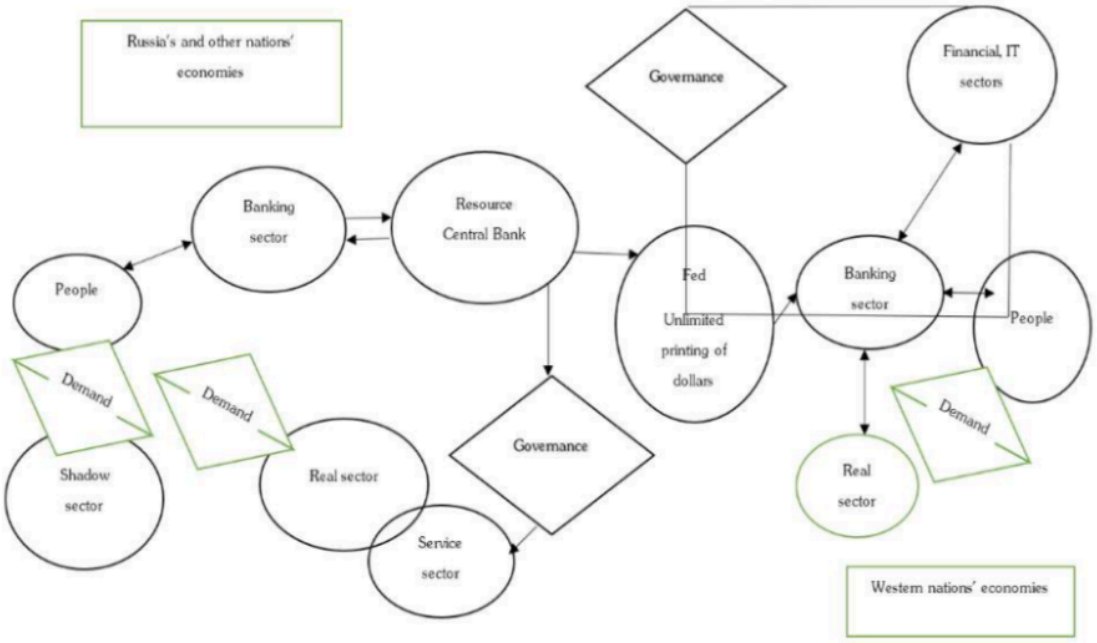

Figure2.

Gross Domestic Product of Bretton Woods

Note. The author adapted Divannyypolitikan's work(2022).

References

Anderman, E. M., Cupp, P. K., & Lane, D. (2010). Impulsivity and academic cheating. *Journal of Experimental Education, 78*(1), 135–150. https://doi.org/10.1080/00220970903224636

☐ Leave one centimetre off the front edge.

☐ Sort alphabetically.

Arellano, W. M. B., & Tornero, J. L. V. (2023). Psychometric properties of the academic dishonesty questionnaire in English students in Cuenca, Ecuador. *Etic Net-Revista Cientifica Electronica de Educacion y Comunicacion en la Sociedad del Conocimiento, 23*(2), 419–432. https://doi.org/10.30827/eticanet.v23i2.28284

Bluestein, S. A. (2015). Connecting student-faculty interaction to academic dishonesty. *Community College Journal of Research and Practice, 39*(2), 179–191. https://doi.org/10.1080/10668926.2013.848176

Compton, L., Davis, N., & Correia, A.-P. (2010). Pre-service teachers' preconceptions, misconceptions, and concerns about virtual schooling. *Distance Education, 31*(1), 37–54. https://doi.org/10.1080/01587911003725006

Conway, C. S., Staten, B. H., Harris, S., Maultsby, M., Sims, Y., Hayes, G., Smith, S., Mutisya, P., & Osler, J. (2017). Cheating: Digital learning activities and challenges. In D. M. Velliaris (Ed.), *Handbook of research on academic misconduct in higher education* (pp. 112–130). IGI Global. https://doi.org/10.4018/978-1-5225-1610-1.ch005

Dannhoferova, J., Foltynek, T., Dlabolova, D., & Fishman, T. (2022). Cutting the vicious circle: Addressing the inconsistency in teachers' approaches to academic integrity breaches. *Journal on Efficiency and Responsibility in Education and Science, 15*(1), 10–22. https://doi.org/10.7160/eriesj.2022.150102

DiPaulo, D. (2022). Do preservice teachers cheat in college, too? A quantitative study of academic integrity among preservice teachers. *International Journal for Educational Integrity, 18*, 2. https://doi.org/10.1007/s40979-021-00097-3

Doerr, K. (2021). Testing and cheating: technologies of power and resistance. *Cultural Studies of Science Education, 16*, 1315–1334. https://doi.org/10.1007/s11422-021-10048-6


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