

Editorial

Trustworthy Digital Transformation and Data-Driven Societal Resilience

Guest Editor: Dragan Vukmirović

Special Issue:

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This issue's editorial focuses on two core topics: trusted digital transformation, data-driven social resilience.

The research papers featured in this issue of *IPSI Transactions on Internet Research* cover digital technology, artificial intelligence, blockchain architecture, statistical modeling, and data-driven methods. Though they belong to distinct research fields, all these works focus on technology's reshaping of organizations, institutions, and society and center on the shared core of trustworthiness, sustainability, auditability, social value, and strengthened resilience.

From a broader perspective, the importance of responsible digital transformation is growing increasingly prominent. We must correct the one-sided perception that frames digital transformation as nothing more than the deployment of new technologies. Beyond rolling out new technologies, all types of organizations and public institutions need to ensure their digital systems are interpretable, reliable, and resilient to meet social, ethical, and institutional expectations. In this sense, the papers collected in this special issue provide support for existing academic debates across five core areas: sustainable development, AI governance, audit and oversight, democratic infrastructure, and evidence-based public health.

This section sequentially sorts out the core content of four English academic papers, which respectively fall under the fields of sustainable digital transformation, AI-native decision governance, generative AI audit regulation, and national-scale electronic voting blockchain, to string together the research trajectory of the multi-scenario implementation of digital technologies:

The first paper, **Fatahi Milasi et al.'s Sustainable Digital Transformation Framework: A Comprehensive Review of Internal and External Drivers**, focuses on the sustainable digital transformation of small and medium-sized sports enterprises in developing countries. Using the qualitative meta-synthesis method, the study identifies 5 internal drivers, including leadership commitment, and 4 external drivers, including government support. It points out that this transformation is a multi-dimensional process that integrates economic, social, environmental, and ethical dimensions, rather than a simple process of technology adoption;

The paper, **Avramović et al.'s Validation-Centric AI-Native Decision Systems: Integrating the GAVA Loop with PRIME-INSPECT Governance**, centers on the core challenge of real-time output verification for AI-native decision-making. The study puts forward the GAVA (Generate-Act-Validate-Adjust) loop and integrates it with the PRIME-INSPECT governance framework. Through conceptual modeling combined with empirical analysis of samples of IT practitioners and executives, its core contribution is positioning verification as the primary organizational function of AI-native systems;

The third paper, **Stanojević et al.'s Forward-Secure Blockchain Architecture for National-Scale Electronic Voting: Enhancing Institutional Sustainability and Democratic Resilience**, investigates the feasibility of a permissioned blockchain architecture for national-scale electronic voting. The study proposes a model based on slot workflows and one-time key pairs. Prototype tests confirm that this architecture can support auditability, forward security, and predictable finality under controlled conditions. The core research of this paper centers on the design agenda of digital electoral infrastructure, contributing academic value to discussions focused on strengthening institutional trust and democratic resilience.

The paper, **Kresović et al.'s Generative AI in Audit Oversight: A Checklist-Based Model Evaluation**, explores the application of generative AI in the preliminary review of independent audit reports and their supporting financial statements. Based on a corpus of reports from listed companies in Serbia, the study compares the performance of ChatGPT and Gemini 3.1 Pro against the benchmark of professional audit assessment. It finds that generative AI can improve audit consistency and priority-setting capabilities in scenarios that rely on standardized checklists, but scenarios that require professional judgment still need verification by experts;

The fifth paper, cites a study by **Kričković et al: Education and Cardiovascular Diseases**, which took patients receiving treatment at the Institute of Cardiovascular Diseases in Vojvodina, northern Serbia, as its research subjects. The study employed statistical analysis, Poisson regression, and emerging hotspot analysis and found that groups with different educational levels have significantly different hospitalization patterns, that the incidence of cardiovascular diseases presents spatial clustering, and that integrating clinical, socioeconomic, and geospatial data can help interpret public health inequalities and support the formulation of targeted prevention strategies.

As editors of this special issue, we have synthesized the cross-domain research findings in this collection and propose that, beyond technical capabilities, digital transformation requires four categories of non-technical support: verification, governance, institutional trust, and social connectedness. Research spanning five major fields, including sports enterprises, converges on the same core conclusion: digital systems must operate as socio-technical systems and be embedded in organizational, institutional, and social contexts throughout their design and evaluation.

Prof. dr. Dragan Vukmirović is a full professor at the Faculty of Organizational Sciences, University of Belgrade, in the fields of statistics, data science, e-business, and digital transformation. He is a former Director General of the Statistical Office of the Republic of Serbia and has extensive experience in official statistics, statistical methodology, information systems, and evidence-based decision-making. He is the author and co-author of numerous scientific and professional papers and has participated in national and international projects. His research interests include statistics, data science, e-government, digital inclusion, artificial intelligence, and the application of generative AI in education, business, and public administration..