

Editor's Foreword

Dear Scholars, Researchers, Engineers, Practitioners, and Esteemed Readers,

The contemporary world produces data at a scale and speed that would once have been unimaginable. Sensors observe physical environments, digital platforms record patterns of interaction, scientific instruments capture increasingly complex phenomena, and organizations rely on continuous streams of information to make decisions. Yet the accumulation of data does not by itself create understanding. The central challenge is to transform data into reliable intelligence and computation into systems capable of perception, learning, reasoning, adaptation, and meaningful interaction with people.

This transformation requires more than improvements in algorithmic performance. Intelligent systems operate within environments that are incomplete, dynamic, and shaped by human purposes. They must combine statistical learning with knowledge, context, memory, and decision processes. They must communicate uncertainty, adapt without losing stability, and support human judgment rather than merely produce outputs. As artificial intelligence becomes embedded in healthcare, engineering, transport, economics, education, and public life, questions of interpretability, trust, robustness, and responsibility become inseparable from questions of capability.

It is in this rapidly evolving intellectual landscape that we launch *Advanced Data Intelligence and Cognitive Systems* (ADICS). ADICS is an international, peer-reviewed, open-access journal dedicated to research on data intelligence, artificial intelligence, and cognitive systems. The journal focuses on the progression from data to intelligence and from computation to cognition, providing a forum for work that connects data-driven modeling, knowledge discovery, cognitive computing, and human-machine interaction.

The scope of ADICS includes machine learning, deep learning, data mining, knowledge representation, reasoning, multimodal intelligence, cognitive architectures, natural language processing, computer vision, intelligent agents, decision support, adaptive systems, human-machine collaboration, explainable and trustworthy artificial intelligence, and related areas. We welcome foundational studies that clarify principles and mechanisms, methodological contributions that introduce new models or evaluation approaches, and application research that demonstrates value in complex real-world environments.

Interdisciplinarity is central to our mission. Cognitive systems draw insight not only from computer science and engineering, but also from neuroscience, psychology, linguistics, philosophy, mathematics, statistics, design, and the social sciences. These fields ask different questions and use different forms of evidence, yet their interaction can produce more complete accounts of intelligence. ADICS encourages research that crosses these boundaries with conceptual care, rather than borrowing terminology without engaging the assumptions and methods from which it arises.

We are particularly interested in systems that integrate multiple forms of intelligence. Data-driven learning can reveal patterns, while symbolic and knowledge-based approaches can support abstraction, reasoning, and explanation. Perceptual models can recognize features of an environment, while cognitive and interactive components can interpret goals and coordinate action. Human expertise can guide learning, test outputs, and provide contextual judgment.

Research that examines how these elements can be combined - and where such combinations remain limited - is essential to the next generation of intelligent systems.

Four commitments will guide the journal. First, methodological rigor: contributions should use appropriate baselines, evaluation metrics, datasets, ablation studies, or theoretical analysis, and should distinguish genuine advances from gains produced by narrow settings. Second, reproducibility and transparency: authors should describe data, models, training procedures, and limitations as fully as ethical and practical constraints permit. Third, human-centered intelligence: systems should be evaluated in relation to the people, institutions, and decisions they are intended to support. Fourth, responsible innovation: privacy, fairness, safety, explainability, environmental cost, and potential misuse should be considered as part of system quality.

ADICS also seeks to narrow the distance between laboratory success and sustainable application. Models that perform well on curated datasets may encounter distribution shifts, missing data, conflicting objectives, and human adaptation when deployed. We therefore welcome longitudinal studies, field evaluations, failure analyses, and research on monitoring and governance. A result that clarifies when a system should not be trusted can be as important as one that establishes a new capability.

The journal will provide space for original research articles, reviews, methodological papers, systems studies, and critical perspectives. Applications in healthcare, engineering, economics, education, social science, and related domains are welcome when they make a clear contribution to data intelligence or cognitive systems and engage seriously with domain context. We hope this breadth will foster a research community that is technically ambitious, intellectually open, and attentive to the consequences of its work.

We warmly invite researchers and practitioners from around the world to contribute their strongest work, participate in peer review, and help shape the questions that ADICS should address. Early-career scholars are especially encouraged to bring new methods and perspectives, while experienced researchers can help establish the standards and long-term direction of the field. Through constructive exchange, we hope to create connections across disciplines, regions, and application communities.

With this inaugural issue, ADICS begins from a simple but demanding premise: intelligence is not measured only by the volume of data processed or the complexity of a model, but by the quality of understanding and action that a system enables. On behalf of the editorial team, I thank our authors, reviewers, readers, and collaborators for joining us. May ADICS become a trusted platform for advancing intelligent and cognitive systems that are capable, comprehensible, and worthy of human confidence.

Advanced Data Intelligence and Cognitive Systems (ADICS)
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