

Call for Papers

The JOS Editorial Board invites submissions to the Special Issue on

Artificial Intelligence in Official Statistics – Exploration and Exploitation

Artificial Intelligence (AI), understood as the broader framework for automating manual tasks, and Machine Learning (ML), the specific approach focusing on algorithms that learn from data, are key ideas in developing real-time, granular, and efficient data producing systems for official statistics, especially in current data-rich environments. Modern developments in AI and ML hold many promises but their use and integration is not without considerable challenges, for instance, those related to transparency and trust. However, many are convinced that the benefits outweigh the risks and that is why numerous international projects and working groups, accompanied by the backing of director generals within official statistics, stimulate the development and system-wide adoption of these new technologies. Notable international coordination efforts include the EU Innovation Agenda in Official Statistics and the UN Committee of Experts on Big Data and Data Science for Official Statistics. The steady growth of papers on AI and ML published in scientific journals makes this an opportune moment for stocktaking of the recent development in official statistics in order to accelerate their adoption.

The special issue of the Journal of Official Statistics aims to present the current state of exploring and exploiting Artificial Intelligence (AI) in official statistics production. We welcome submissions relevant, though not limited, to the key themes in this area: efficiency improvement, the use of new data sources, use of large general-purpose (foundation) models and generative AI, AI in design and data collection and dissemination, quality assurance, interdisciplinary collaboration, hybrid approaches where AI is successfully incorporated in human-centric intelligent systems, and trustworthy, fair and explainable AI.

The deadline for submission is 30.9.2025

Publication: September 2026 (online upon acceptance)

Key Themes:

- **Interdisciplinary Collaboration:** Emphasize the synergy between computer science and official statistics, fostering innovation in statistical methodologies or refinements in AI algorithms or technologies.
- **AI-enhanced data collection and dissemination:** Show how AI can support efficient data collection and assist in the production of novel, more relevant statistics. Proposals for new, timely or more detailed statistics are welcome.
- **Emerging Data Sources:** Illustrate how AI can help foster the adoption of new data sources within official statistics, empowering new statistics and/or result in more cost-effective data collection.

- Foundation models and GenAI: how can these new technologies be adopted within official statistics.
- Quality Assurance: Investigate optimal practices and standards ensuring high-quality statistical outputs in AI applications. Discuss the main pitfalls and ways to deal with sources of error and communicating them. ML in pre-processing or final product?
- Hybrid Approaches: Explore use cases that optimally combine AI, deterministic approaches and human in the loop in various tasks, highlighting efficiency and quality improvements.
- Explainable AI: Discuss best practices that keep the trust in Official Statistics intact or methods that help establish trust in the application of new AI based models.
- Efficiency Gains: Discover how AI streamline data processes, leading to cost savings and resource optimization.
- The two way street: Exploring various ways in which official statistics and administrative data can be used to improve AI models, outputs, development and tuning.

Submission Guidelines:

- Manuscripts should be submitted through the Scholar One Manuscript Central site, specifying "AI in Official Statistics" as the special issue, [ScholarOne Manuscripts \(manuscriptcentral.com\)](https://www.manuscriptcentral.com)
- All manuscripts must adhere to the JOS submission and peer review rules and will go through the usual JOS review process. Instructions for authors are available at [Submission Guidelines: Journal of Official Statistics: Sage Journals \(sagepub.com\)](https://www.sagepub.com/journalsPermissions.nav)

Join us in advancing AI in official statistics, ensuring quality and efficiency through optimal practices!

Editors for the Special Issue:

Henri Luomaranta-Helmivuo, henri.luomaranta@stat.fi (Statistics Finland), chair

Trent Buskirk (Old Dominion University School of Data Science,)

Piet Daas (Statistics Netherlands)

Johanna Laiho-Kauranne (CSC - IT Center for Science)

Sincerely,

JOS Editorial Board