Ethical Challenges in Government Use of AI-Generated Economic Statistics: Transparency, Accountability, and Public Trust

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I. Abstract

This proposal examines the ethical landscape surrounding the use of artificial intelligence (AI) to generate and augment economic statistics. The growing reliance on AI in economic data production has intensified ethical and legal debates about how to balance transparency, auditability, confidentiality, and privacy obligations with the demand for accurate, high-velocity economic information. Because economic statistics underpin public policy decisions and democratic accountability, rigorous ethical evaluation of AI-driven statistical production is essential to maintaining trust in official data.

II. Introduction

National statistical offices and financial institutions are increasingly adopting AI-generated economic statistics to improve the velocity and granularity of existing datasets. While AI-generated statistics offer potential efficiency gains, their use raises complex ethical concerns related to bias, transparency, accountability, and public trust in official economic information. Ethical scrutiny of AI-generated economic statistics is therefore critical, as government decisions rely heavily on these data. This proposal seeks to examine these ethical issues and provide a comprehensive understanding of the measures currently being developed and debated in this evolving area.

III. Objectives

This study aims to:

1. Identify the principal ethical risks associated with the use of AI-generated economic statistics in government settings;
2. Examine how AI's technical characteristics, such as bias and algorithmic opacity, interact with public sector values including transparency, explainability, and auditability; and
3. Review existing measures and approaches to ethical governance and responsible use of AI within national statistical systems.

IV. Methodology

The proposal synthesizes existing scholarly and policy literature on AI ethics and public sector applications, drawing on established frameworks that address ethical risk categories such as bias, privacy, transparency, and accountability. Government-focused studies and policy reports are also reviewed to situate ethical concerns within real-world public administration contexts.

This proposal adopts a multi-faceted methodology, including:

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1. **Literature review:** Analysis of academic articles, ethical frameworks, and industry and policy reports related to AI-generated economic statistics;
2. **Case studies:** Examination of real-world instances involving limited transparency, data misuse, or potential erosion of privacy rights in the use of AI-generated economic statistics. Particular attention is given to risks arising from data quality issues, algorithmic decision-making processes, and governance challenges identified in multidisciplinary studies of AI in government;
3. **Ethical analysis:** Application of ethical theories and frameworks to critically assess the moral implications of data usage practices and the deployment of dark patterns in AI systems.

V. Significance

Understanding the ethical dimensions of AI-generated economic statistics is crucial for minimizing potential harm and fostering public acceptance of these technologies. This paper aims to contribute to academic research, industry discourse, and policymaking by offering insights that support ethical decision-making in the use of AI-generated economic statistics. The analysis does not advocate specific policy prescriptions but seeks to inform ethical reflection among governments and other data providers.

VI. Conclusion

AI-generated economic statistics present governments with both significant opportunities and ethical challenges. In the absence of robust ethical frameworks and governance safeguards, these technologies risk propagating bias, reducing transparency, distorting economic decision-making, and eroding trust in public institutions. Governments can leverage AI-generated statistics while safeguarding fairness, trust, and integrity in official economic reporting through the responsible adoption of clear standards for data quality, algorithmic transparency, human oversight, and public accountability. This proposal seeks to map these ethical complexities and provide a nuanced understanding of the challenges that must be addressed for society to fully realize the benefits of AI-generated economic statistics.

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