

Seminario de Microeconomía Aplicada - StatGPT: AI for Official Statistics

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Abstract: National statistical systems generate the statistics that underpin policy, economic analysis, and public trust. Yet, despite decades of investment in statistical capacity, two persistent challenges, data accessibility and interpretability, limit the impact of these official statistics. The rise of large language models and generative artificial intelligence (GenAI) applications such as ChatGPT and Gemini appeared to offer a solution by enabling users to retrieve statistics using natural language. However, testing demonstrates that although the GenAI applications excel at synthesizing text, they perform poorly at delivering official statistics: they frequently provide dangerously “reasonable” but incorrect figures. This paper introduces StatGPT, an initiative by the IMF Statistics Department that leverages large language models not to generate statistics, but to generate structured queries against application programming interfaces of official statistical agencies. StatGPT ensures that users receive the exact published figures, every time, while benefiting from natural language interaction. This paper examines the limitations of off-the-shelf GenAI applications, outlines how StatGPT overcomes these limitations, and proposes a road map for making official statistics AI ready through open data access, enriched metadata standards, and strengthened data governance. By aligning technological innovation with statistical rigor, StatGPT represents a critical step toward a future where official statistics remain authoritative, trusted, and universally accessible in an AI-driven world.

About the exhibitor: James Tebrake is the Deputy Director of the Statistics Department (STA) of the IMF. His main responsibilities include overseeing the Statistics Department’s Economic data program, and the development of macroeconomic statistical standards. Jim’s current research includes developing improved frameworks and methods to account for financial innovation, globalization, digitalization, as well as developing frameworks to assess economic data quality. Prior to joining the IMF in August 2019, Jim held several positions at Statistics Canada, including Assistant Chief Statistician, Economic Statistics and Director General of the Macroeconomic Accounts Branch.

Exposure time: 1 hora