

Call for Papers/Abstracts:

“Applying LLMs and GenAI in Innovation Economics – Potentials and Pitfalls”

Workshop
Aalborg University Business School, Denmark
8-9 December

Background

Large Language Models (LLMs) and Generative AI are revolutionizing how we understand innovation economics and measure the economic impacts of technological change. In innovation studies and innovation economics, these tools facilitate novel approaches to causal identification, enable scalable analysis of previously intractable economic questions, and open new frontiers in understanding how AI technologies reshape market dynamics, productivity patterns, and policy outcomes including within specific sectors such as healthcare, energy, science, education, and public policy.

However, innovation economics has yet to fully harness the potential of emerging AI-driven LLM methods for addressing core economic questions about innovation performance, R&D patterns, and technological diffusion. With efforts to integrate these techniques, there is a growing need for researchers to exchange best practices and discuss both the potential and methodological limitations inherent to these novel approaches.

Workshop Announcement

We are pleased to announce an upcoming two-day workshop hosted by AAU Business School (DK) in collaboration with representatives from the University of Strasbourg (FR), Copenhagen Business School (CBS), University of Bremen (DE), and UNU-MERIT (NL) that jointly contribute to the PhD and Research network "Economics of Innovation, AI & Data Science applications". The 6th workshop of the network will provide a platform for sharing and discussing research that integrates LLMs and Generative AI within innovation economics, emphasizing methodological rigor and policy relevance in the analysis of AI's economic impacts.

Call for Submissions

We seek submissions that use LLMs and GenAI in research methods of innovation economics, for example, combining AI techniques with econometric analysis, causal identification strategies, or policy evaluation frameworks. Applications can also refer to text analysis of innovation documents, AI-enhanced difference-in-differences analysis, innovation measurement and metrics, natural experiments and counterfactuals using LLM-processed data, automated survey analysis, historical innovation analysis, or utilising novel unstructured data sources to construct datasets. Submissions should demonstrate how these tools advance our understanding of innovation economics exemplifying application potential and discussing inherent limitations.

Submissions might apply, explore, or advance LLMs and GenAI techniques in the context of:

Innovation Performance and Productivity Analysis

- LLM-enhanced measurement of firm-level innovation outcomes
- AI-processed patent data for productivity analysis
- Automated processing of R&D survey data for econometric studies

Market Structure and Industrial Analysis

- AI-augmented analysis of competitive dynamics and market concentration
- LLM-based classification of innovation strategies for industrial organization research
- Automated extraction of market intelligence from unstructured business data

Economic Policy Analysis and Evaluation

- AI-enhanced policy impact assessment and natural experiments
- LLM-processed government documents for policy analysis
- Automated evaluation of R&D and innovation policy effectiveness

Geographic and Regional Innovation Economics

- Mapping the geography of skills and occupations using AI-processed job posting data
- LLM-enhanced analysis of regional innovation systems and knowledge spillovers
- Geographic diffusion analysis of AI and emerging technologies

Labor Economics and Human Capital

- AI-augmented analysis of occupational transitions and skills evolution
- LLM-processed job descriptions for labor market analysis
- Economic impact assessment of AI on employment and wages

Sectoral Innovation Dynamics

- Economic analysis of AI diffusion patterns across healthcare, energy, education sectors
- LLM-enhanced study of sector-specific innovation processes
- Productivity and performance implications of sectoral AI adoption

Methodological approaches

- Combination of GenAI/LLM approaches with econometrics and causal inference
- Zero-shot classification for economic categorization and measurement
- Chain-of-thought approaches for complex economic relationship analysis
- Scaling qualitative insights to large datasets for economic analysis

We particularly welcome submissions that demonstrate how LLMs and GenAI can advance the economic research frontier by overcoming existing limitations in traditional econometric techniques within core areas of innovation economics, including: innovation systems and productivity, R&D economics and investment patterns, technological change and market dynamics, regional innovation patterns, and economic impacts of globalized R&D. We also highly encourage submissions that apply advanced AI techniques to examine economic questions about AI adoption, including scientific acceleration, market structure consequences, distributional effects, productivity impacts, and optimal policy responses. Contributions exploring how these techniques enhance our understanding of AI-driven economic transformations across specific sectors are especially welcome.

Submissions should highlight both the economic potential and the methodological limitations that emerge when using LLMs and GenAI techniques in innovation economics research. This should address data quality and economic representativeness, temporal knowledge boundaries for economic trend analysis, causal identification challenges, economic validation and interpretation, reliability and consistency for policy applications, ethical considerations in economic research, as well as reproducibility of economic findings.

Program Format

The program will feature both hands-on technical sessions focused on economic applications and research presentations emphasizing economic findings and policy implications. This workshop aims to cultivate methodological expertise in AI-enhanced economic analysis and advance computational approaches within innovation economics research communities. We welcome in particular, the participation of PhD students and early-stage researchers in economics, innovation studies, and related fields. We anticipate approximately 20-30 participants from partner institutions and beyond.

The event is free of charge, supported by AAU/MASSHINE. Participants are expected to cover their transport and accommodation.

Organizational Committee

- Roman Jurowetzki (Aalborg University Business School & CAISA, DK)
- Stefano Bianchini (University of Strasbourg, FR)
- Jessica Birkholz (University of Bremen, DE)
- Giacomo Damioli (University of Strasbourg, FR)
- Björn Jindra (Copenhagen Business School, DK)
- Lili Wang (UNU-MERIT, NL)

Local Organizing Committee

Eskil Andersen, Primož Konda & Hamid Bekamiri

Submit here: <https://forms.cloud.microsoft/e/Trs3X5cHuC>

Format Requirements:

Extended abstract: Maximum 2,000 words

Reference list: Maximum 500 words

One figure or table illustrating key findings (optional)

Important Dates

Abstract Submission Deadline:	15. August 2025
Acceptance Notification:	5. September 2025
Camera Ready Paper:	14. November 2025

Contact Information

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