



PUBLIC SECTOR INNOVATION

ARTIFICIAL INTELLIGENCE SOLUTIONS SUPPORTING ECONOMIC POLICY MAKING*

Germana Di Domenico
Department of the Treasury
Economy and Finance Ministry

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WHAT and WHY

Applying **artificial intelligence solutions**, such as **text mining and sentiment analysis** to:

- support policy makers in monitoring the sentiment of their main stakeholders, including civil society, media and interest groups so to better elaborate possible trends and agenda settings;
- deliver qualitative evaluation of policy effects, by verifying whether programs/measures to be implemented meet the intended objectives.

AI applications can indeed significantly reduce the costs for decision makers who seek additional information on public views and sentiment on existing policies.



HOW and WHEN

Institutional reports, speeches, news etc are linked to sentiment variables, which provide information for economic and other research. Being often very rich, these data are difficult to integrate into statistical traditional studies

Computers can obviously read text far faster than humans and sentiment analysis is able to reduce the text into data

Such analysis could be carried out on single years or on a longer observation series.



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WHO MAY BE INVOLVED

- Policy makers
- Civil servants
- Media
- Civil society (answering simple questions or support the decisions of operators in the interaction activities with the citizen - chatbox)

SOME EXAMPLES

To estimate the unemployment rate or inflation rate, to improve forecasts of relevant variables for policy purposes, to measure consumer and business confidence

Huge potential:

- Text and sentiment analysis: analysing the policy documents and the official declarations of the Finance Ministers from 2011 (establishment of the European Semester) to the most recent publications, it would be possible to extract the tone or sentiment expressed in reference to global economic conditions, the national economic cycle and/or the implementation of government programs.
- Institutional short reports
- Automated data validation
- Visualization by images of institutional analyses



PUTTING INTO PRACTICE - OPEN ISSUES

- Need for **new skills and specific vocational training** - AI@MEF proposed project under the EC SRSP
- **Monitoring results** – Are these AI solutions really effective? How could their use be improved?