
‘Prompting economics’

How to reconcile ‘traditional’ information services with AI-based information practices

Dr Timo Borst

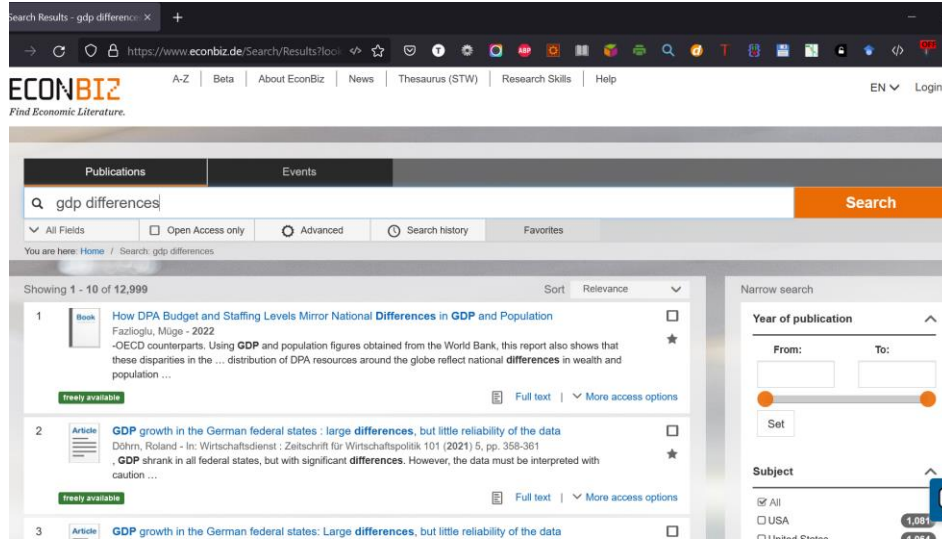
Beyond the Numbers 2023
Federal Reserve Bank of St. Louis
November 6 – 8, 2023



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'Traditional' information services (as we know them)

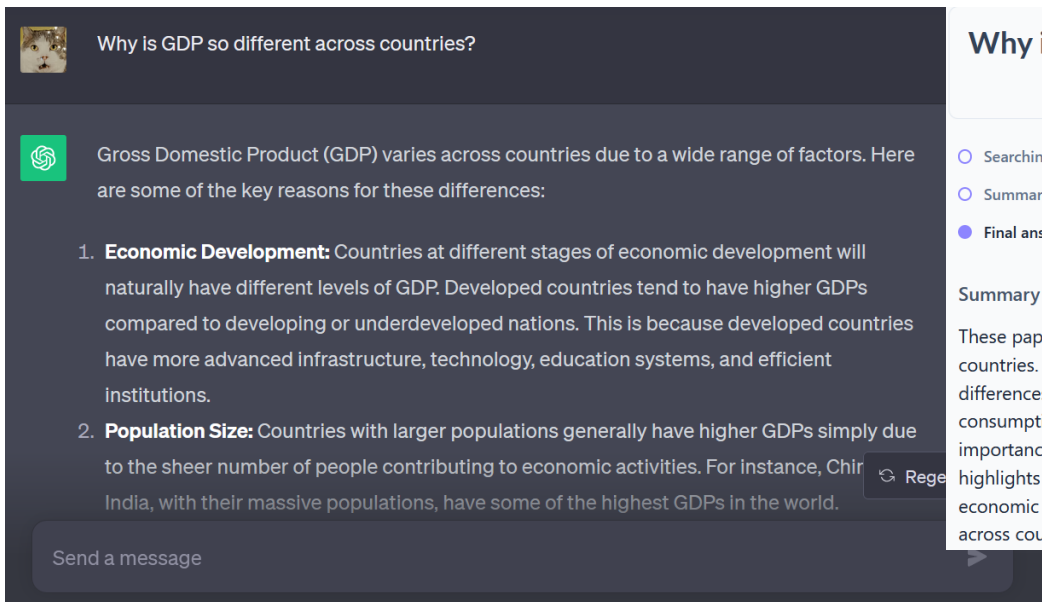
(example: [EconBiz](https://www.econbiz.de/))



The screenshot shows the EconBiz search results page for the query 'gdp differences'. The page displays a list of search results, including a book and two articles. The first result is a book titled 'How DPA Budget and Staffing Levels Mirror National Differences in GDP and Population' by Fazlıoğlu, Müge (2022). The second and third results are articles titled 'GDP growth in the German federal states : large differences, but little reliability of the data' by Döhrn, Roland (2021). The page also features a search bar, navigation tabs for 'Publications' and 'Events', and a 'Narrow search' sidebar with filters for 'Year of publication' and 'Subject'.

- built upon metadata as proxies for documents
- keyword-based retrieval
- rankings based more on formal criteria (e.g., popularity, freshness, relevance)
- selective 'list'-view
- content itself often inaccessible or exposed via snippets (mostly from abstracts)

Now, some intervention is happening...



Why is GDP so different across countries?

Gross Domestic Product (GDP) varies across countries due to a wide range of factors. Here are some of the key reasons for these differences:

1. **Economic Development:** Countries at different stages of economic development will naturally have different levels of GDP. Developed countries tend to have higher GDPs compared to developing or underdeveloped nations. This is because developed countries have more advanced infrastructure, technology, education systems, and efficient institutions.
2. **Population Size:** Countries with larger populations generally have higher GDPs simply due to the sheer number of people contributing to economic activities. For instance, China and India, with their massive populations, have some of the highest GDPs in the world.

Send a message

<https://chat.openai.com/>

Why is GDP so different across countries?

- Searching for papers
- Summarizing 8 abstracts
- Final answer

Summary of top 4 papers

Copy

These papers provide insights into the factors that contribute to the differences in GDP across countries. [Barro 2003](#) and [Alonso-Carrera 2010](#) suggest that variations in GDP can be attributed to differences in factors such as human capital, investment ratio, fertility rate, government consumption, inflation rate, terms of trade, and international openness. [Barro 2003](#) emphasizes the importance of initial levels of real per capita GDP and human capital, while [Alonso-Carrera 2010](#) highlights the role of capital endowments and sectoral composition. These findings suggest that economic growth and sectoral structure play significant roles in explaining the differences in GDP across countries ([Barro 2003](#); [Alonso-Carrera 2010](#)).

<https://elicit.com>

How to deal with this? A few suggestions...

Continuously observing and evaluating information behaviour in economics.

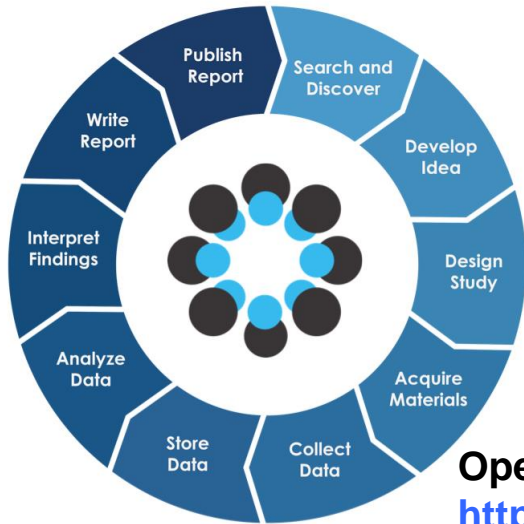
Common activities and tasks (as far as we have come to know them...):

- brainstorming and structuring
- literature search and summaries
- translations / text improvements / text formatting
- data analysis
- coding (in terms of AI pair programming)
- **prompting***

Cf. [Anton Korinek, 2023. "Language Models and Cognitive Automation for Economic Research" NBER Working Papers 30957](#)

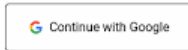
How to deal with this?

Keeping track and informing (oneself) about AI-based tools and practices as part of general information literacy.



LEX

Unlock your best writing



RAPIDMINER



GPTZero

Humans Deserve the Truth



**GitHub
Copilot**

Open Science Framework for Research Workflows

<https://humtech.ucla.edu/event/open-science-framework-research-workflows/>



Leibniz-Informationszentrum
Wirtschaft
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for Economics



How to deal with this?

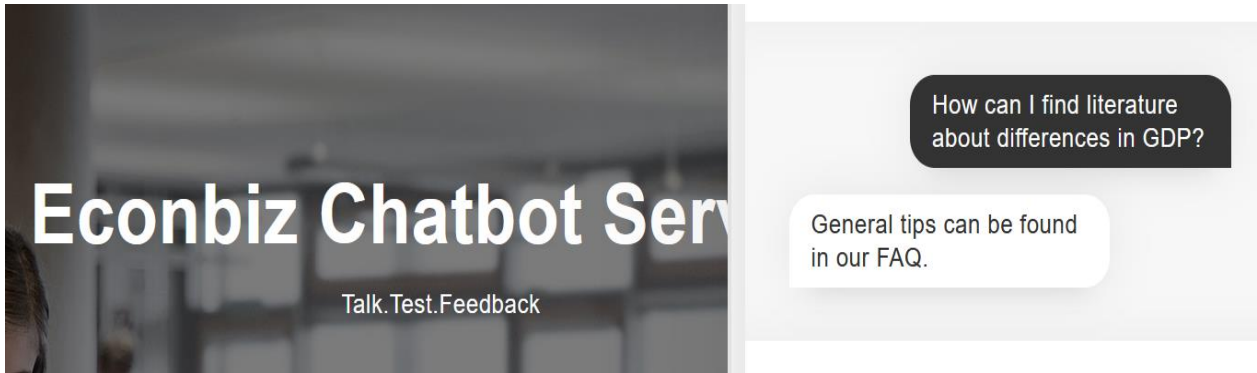
Adopting and contextualizing pre-trained Large Language Models (LLMs), e.g. by fine-tuning and training them with domain specific word embeddings for

- **text classification** (purpose: subject indexing and retrieval)
- **text summarization** (information retrieval, literature review)
- **translating natural language user prompts to queries**
(information retrieval)

How to deal with this?

Integrating AI approaches and infrastructures into existing information services and practices: first on an experimental level, then by becoming productive.

Example @ZBW: Chatbot-based information assistant



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