



Empower your Vote

MAKE INFORMED DECISIONS

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What information can we rely on?

77,8 % of respondents perceive social media as influential in shaping political opinions.**



48%

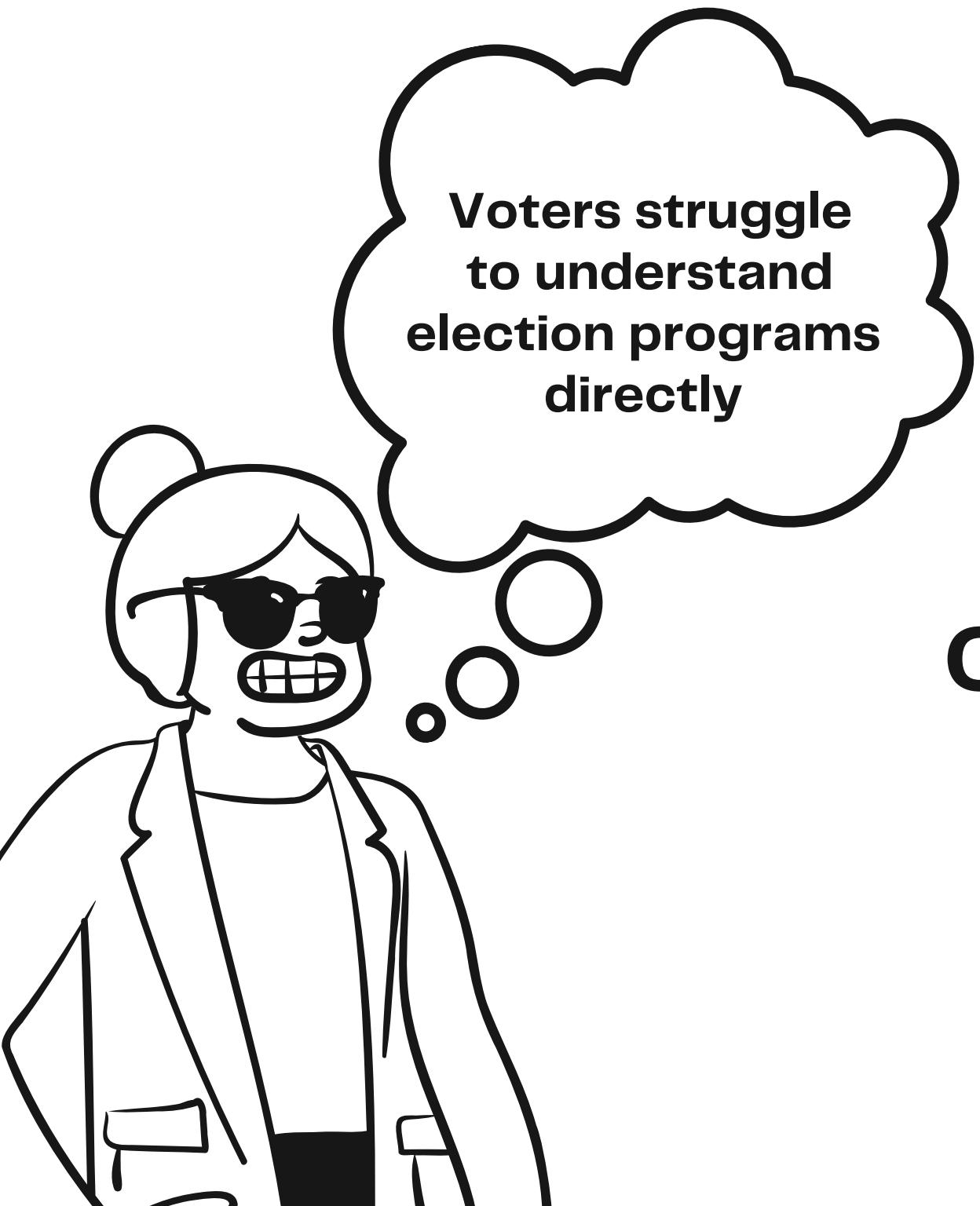
of internet users in Germany encountered misinformation online (Q1 2023), affecting 27.8 million people (ages 16-74).*

*https://www.destatis.de/DE/Presse/Pressemeldungen/2023/12/PD23_470_63.html



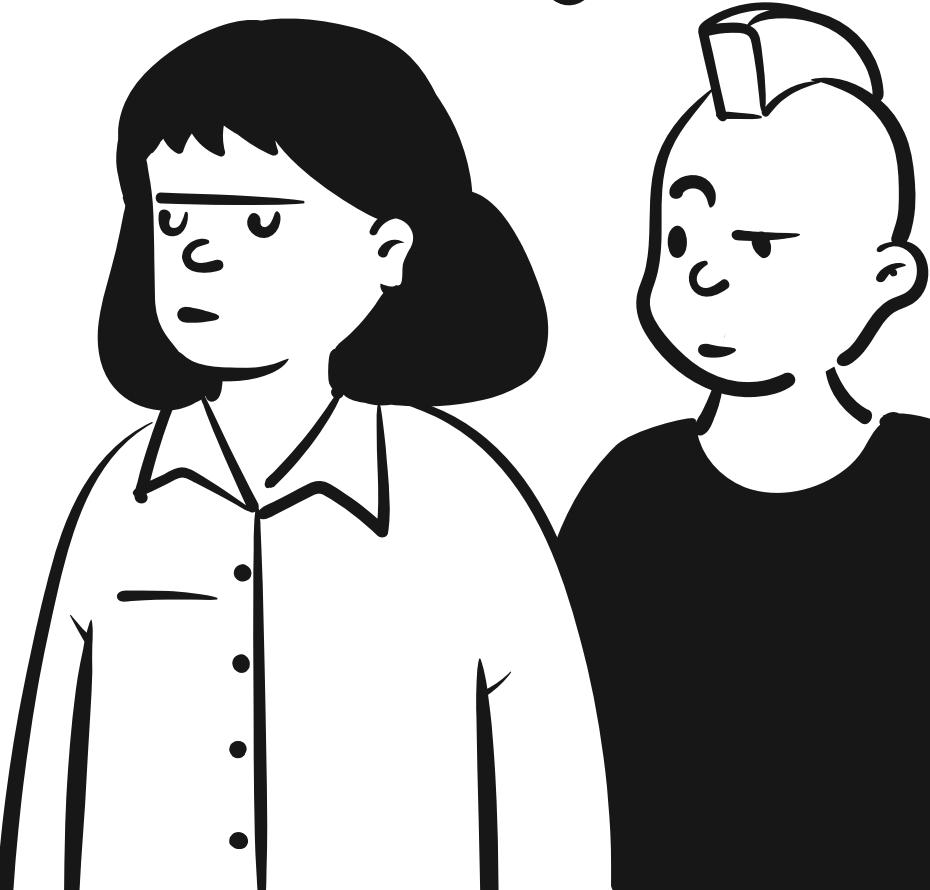
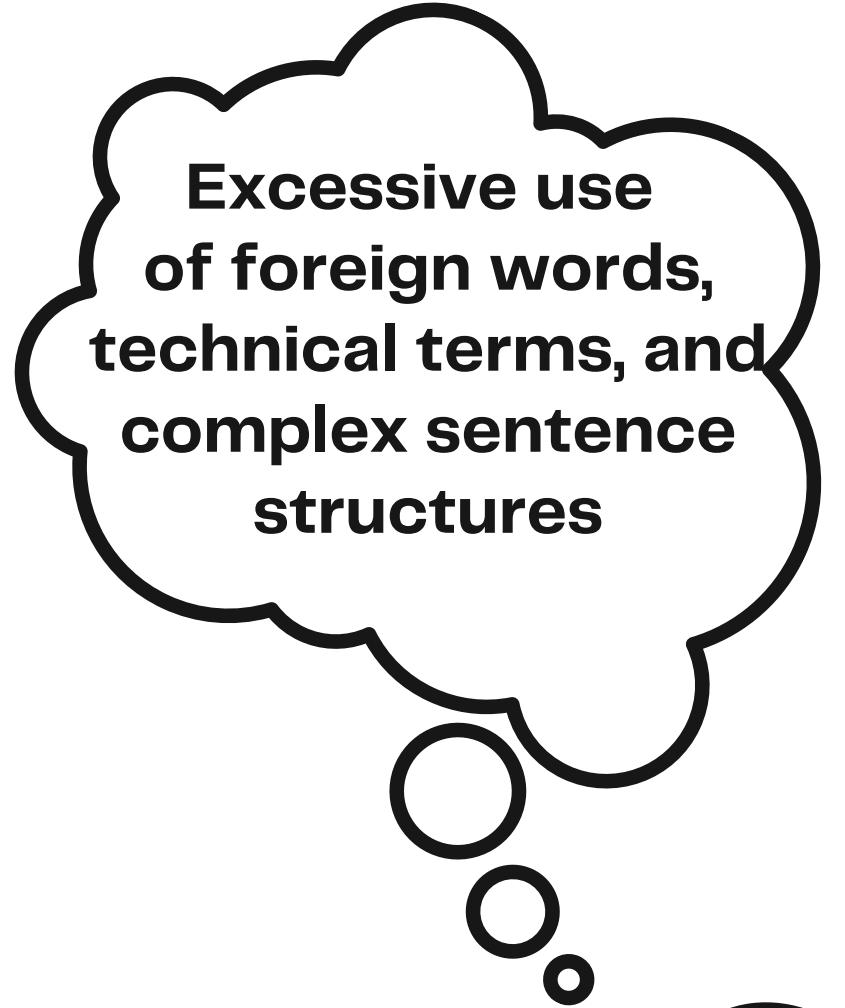
** https://www.eco.de/presse/ein-jahr-vor-der-bundestagswahl-eco-umfrage-zeigt-steigende-relevanz-von-online-inhalten-fuer-politische-meinungsbildung/?utm_source=chatgpt.com

Why are election programs so complicated?



**7.3 out of
20 points**

**Comprehensibility score
of election programs***



How does opinion exchange shape voting?

Only 28%

Social information exchange strongly impacts voting behavior, boosting underdog support and shaping popularity perceptions.*

of said the manifesto would significantly influence their vote. In fact, very few people read it at all.**



*<https://www.cambridge.org/core/journals/political-science-research-and-methods/article/betting-on-the-underdog-the-influence-of-social-networks-on-vote-choice/E8151244EA4927859B188D227CB26CE4>

**<https://unlockdemocracy.org.uk/blog1/manifesto-s-voting-intention?>

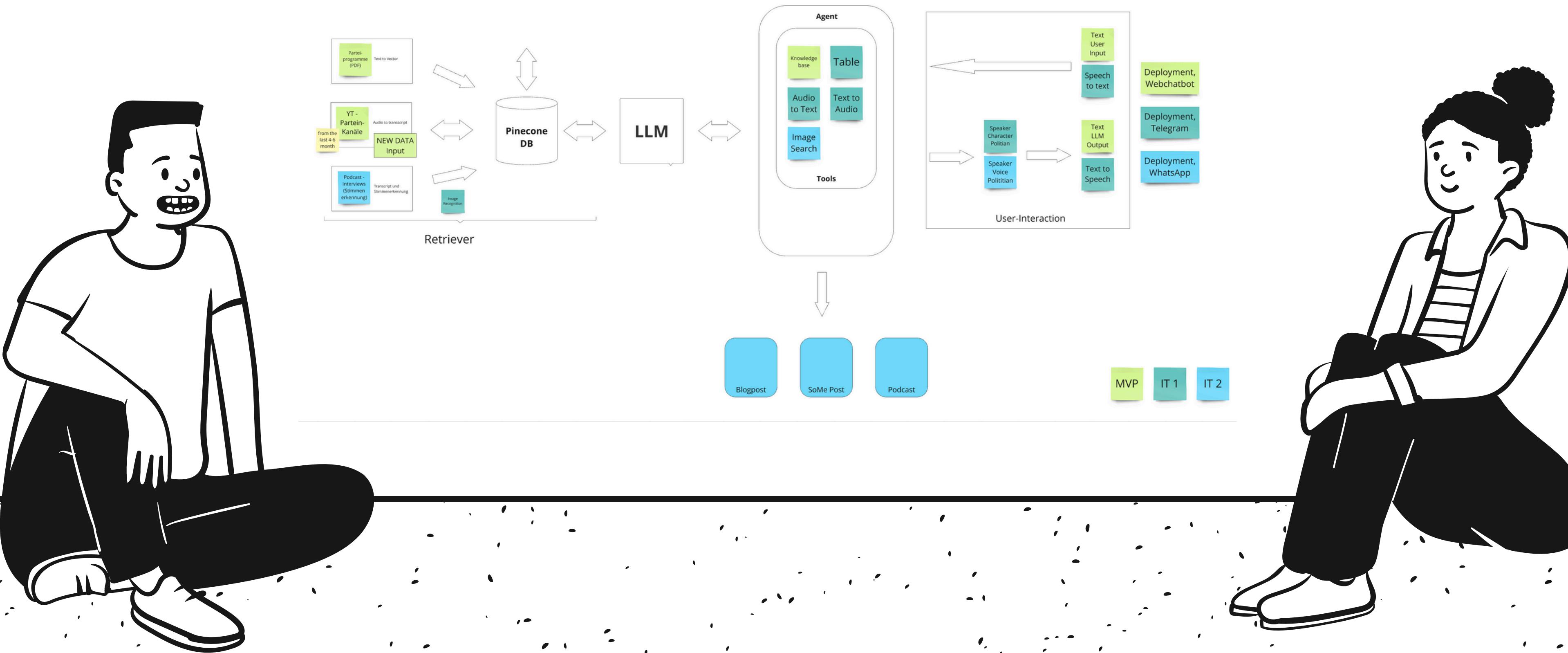
This I want to improve...

Vote for what truly matters to you,
with your personal election buddy.

- Interactive and engaging way to stay informed
- Unbiased information tailored to your interests and needs
- A dedicated space for all your election-related questions
- In-depth answers and discussions beyond Wahl-O-Mat, covering more than just mainstream topics
- Easily compare party positions based on their own statements and commitments



What is the architecture concept?



What do we have here, technically speaking?

Data Loader.

PDF &

YT channel

- Opens and reads PDF files.
- Extracts text content page by page.
- Handles missing or unreadable files gracefully.

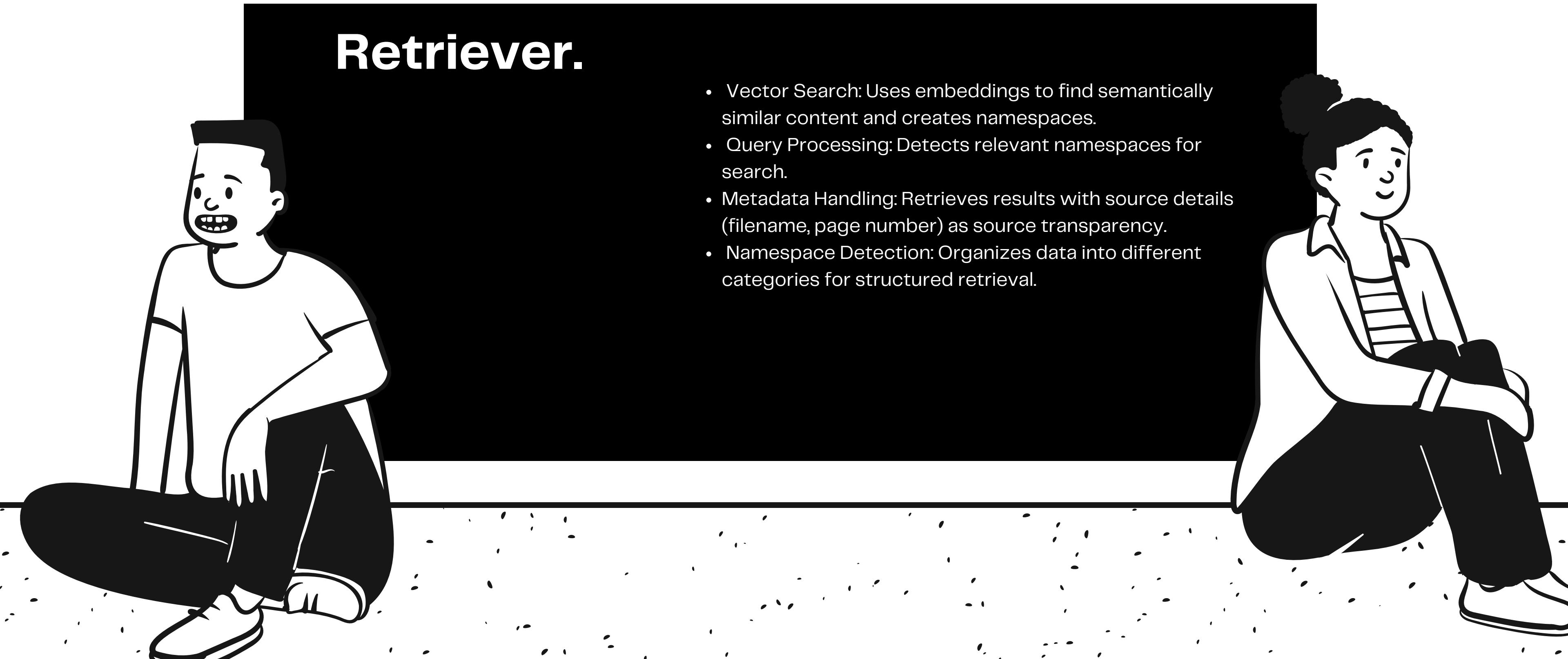
- Channel ID Extraction: Determines YouTube channel ID from usernames.
- Video Retrieval: Fetches recent videos from a given channel.
- Transcript Extraction: Retrieves video transcripts.
- CSV Storage: Saves processed video data for further retrieval.
- Quota Handling: Manages YouTube API request limits.



What do we have here, technically speaking?

Retriever.

- Vector Search: Uses embeddings to find semantically similar content and creates namespaces.
- Query Processing: Detects relevant namespaces for search.
- Metadata Handling: Retrieves results with source details (filename, page number) as source transparency.
- Namespace Detection: Organizes data into different categories for structured retrieval.



What Do we have here, technically speaking?

Main file.

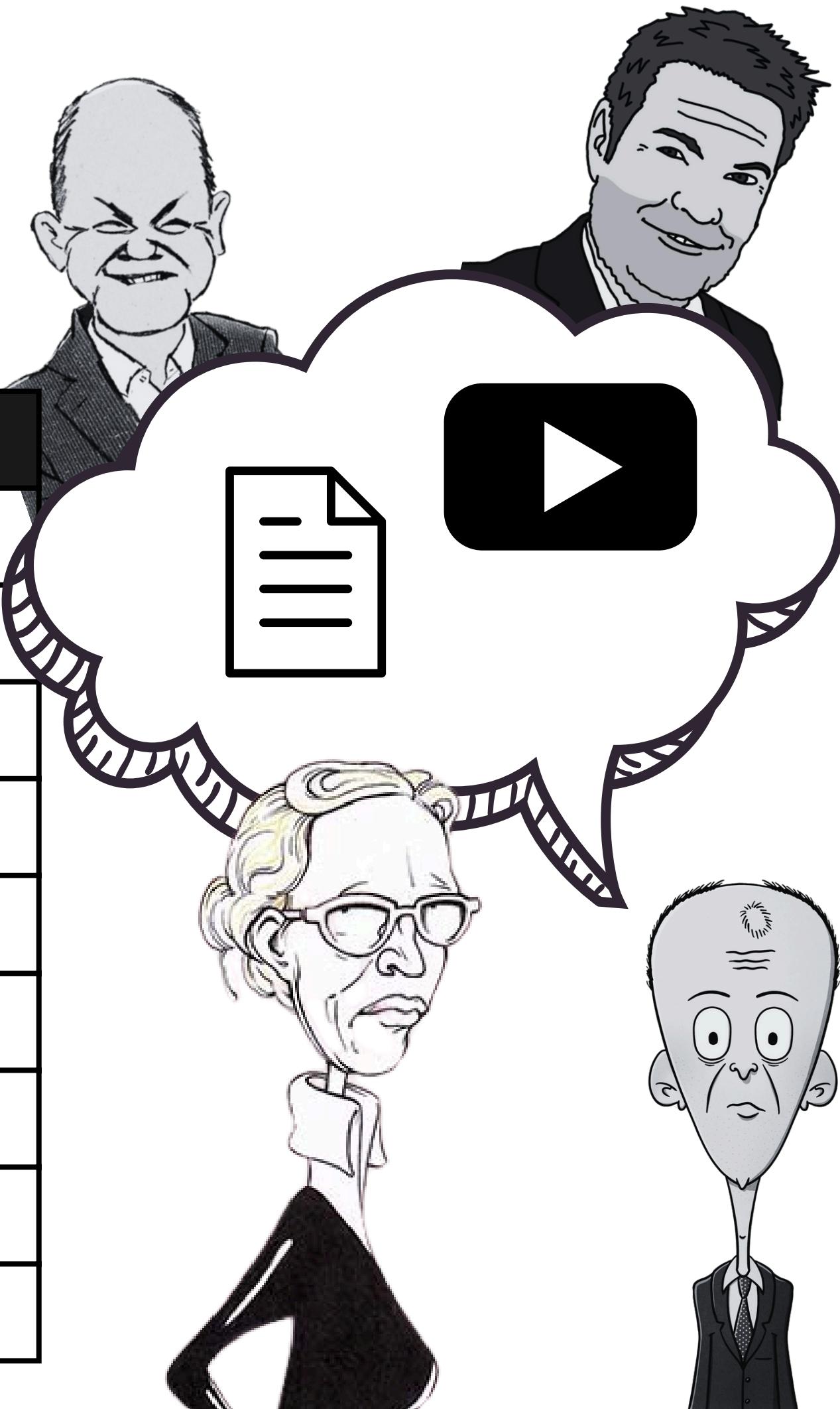
- Acts as an entry point for running the program.
- Connects retrievers, PDF, YouTube loaders, and other components to work together.
- Likely designed for interactive search and chatbot-like retrieval.



What is in the database?

clear, focused and separated for less hallucinations and true easy answers.

PARTY	VECTOR	PDF / PAGES	VIDEOS
SPD	1.397	59	134
CDU	1.219	81	38
AFD	1.154	87	25
Die Linke	996	62	117
GRÜNE	973	72	104
FDP	586	52	83
BSW	544	45	9
PIRATEN	466	147	0
VOLT	322	164	9



20%

What Does the Agent Do?

Agent Summary

- LLM (GPT-4o-mini)
- LangChain Conversational Agent.
- Memory & Execution Flow.
- Conversational Agent (chat-conversational-react-description).
- Uses ChatOpenAI for response generation.
- Retrieves context from election documents before answering.
- Uses knowledge base as a first tool
- maintains chat history for context-aware answers (tba.)



What's the Agent's Future Potential?

80%



Agent backlog

- consultant feature – ask your preferences and needs first sight to guide your better for questions
- shows and links source (URL, page)
- voice-to-voice communication
- communication with artificial politician
- fake news check
- current polls
- summary of the

Evaluation

For best results, Inspection and creating Edge cases.

LangSmith for Inspection & Adaptation

- Used to refine initial prompting and agent behavior.
- Enables prompt debugging for better response accuracy.

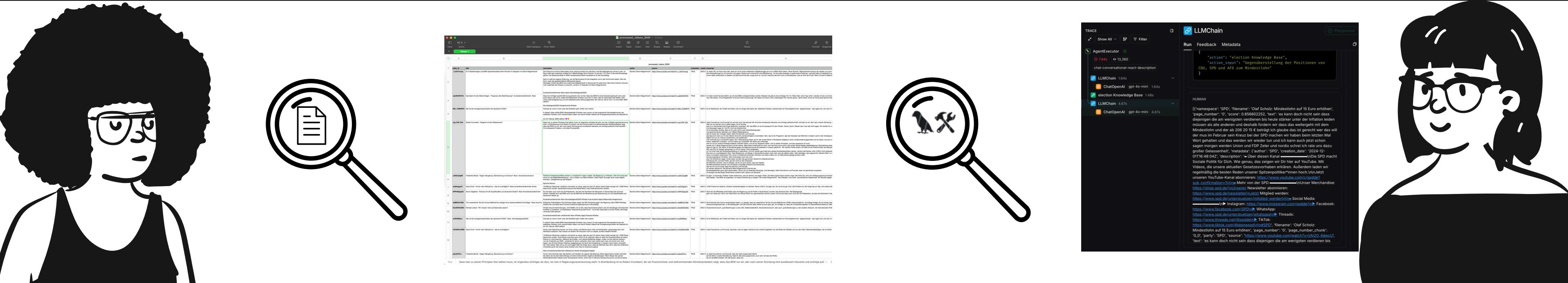
CSV Files for Database Status & Content Tracking

- Logs retrieval results, chunks, and metadata.
- Ensures data integrity and provides a traceable proof source.

Chunking & Metadata Management

- Crucial for structured data processing.
- Supports source verification in AI-generated answers.

```
# Initializing Election Consultant...
[INFO] No processed PDF record found. Processing all PDFs...
    ➜ Processing new PDFs...
Skipping 2025_SPD.pdf, already processed.
Skipping 2025_AFD_Kernforderungen.pdf, already processed.
Skipping 2025_BSW.pdf, already processed.
Skipping 2025_Volt.pdf, already processed.
Skipping 2025_LINKE.pdf, already processed.
Skipping 2025_Piraten.pdf, already processed.
Skipping 2025_AFD.pdf, already processed.
Skipping 2025_CDU.pdf, already processed.
Skipping 2025_FDP.pdf, already processed.
Skipping 2025_GRUENE.pdf, already processed.
    ✓ Processed 0 document chunks...
Processing 0 document chunks...
    ✓ Successfully processed and upserted 0 document chunks to namespaces.
    ➜ Checking YouTube party channel...
    ➜ Checking SPD YouTube channel...
    ➜ Checking CDU YouTube channel...
    ➜ Checking FDP YouTube channel...
    ➜ Checking LINKE YouTube channel...
    ➜ Checking GRUENE YouTube channel...
    ➜ Checking AFD YouTube channel...
    ➜ Checking BSW YouTube channel...
    ➜ Processing: Live: Mega-Veranstaltung mit Alice Weidel in Neu-Isenburg! - AfD (https://www.youtube.com/watch?v=DeReJVt4uQc)
    ✓ Processed 1 new videos for AFD
    ➜ Checking AFD YouTube channel...
    ➜ Checking LINKE YouTube channel...
    ➜ No new unprocessed videos for LINKE. Skipping processing.
    ➜ Checking GRUENE YouTube channel...
    ➜ No new unprocessed videos for GRUENE. Skipping processing.
    ➜ Checking BSW YouTube channel...
```



Conclusion

- project extends beyond a one-week effort
realizing its purpose and potential takes time.
 - Building the RAG is straightforward, but library and code complexities add challenges.
 - Deployment and environment setup significantly impact usability.
 - Dataset quality and architecture are crucial for achieving good results.
- fully

Demo, let make in run.



Election Chatbot Smart-Vote-Consultant

Welcome! Ask questions about political party policies and get to know how it affects you for real.

For the following parties I can provide answers out of their elections programm and youtube published video content:

Question History

What do you need to know about German parties' stances for the Bundestagswahl on 23.02.2025?

Type your question here and name always a party for best results... something like:
... Wie stehen die Grünen und die SPD zum Mindestlohn?
... Welche Chance haben Binderteckinder auf Inklusion unter der AfD?

Submit Clear Chat

Thank
You.