

Introducing ORKG, ORKG Ask and the TIB Alssistant

AI-Driven Organization of Scholarly Knowledge

Allard Oelen

TIB – Leibniz Information Centre for Science
and Technology, Hannover, Germany



Co-funded by the Horizon 2020 programme
of the European Union



Leibniz
Universität
Hannover

Today's outline

1 Problems in scholarly communication

2



orkg.org

Manually curated knowledge graph of scholarly knowledge

3



ask.orkg.org

Scholarly search and exploration system using LLMs

4

TIB AISSISTANT

aissantant.tib.eu

AI research assistant providing support throughout the research life cycle

5 Q&A

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Problems in scholarly communication

- **Keyword-based search** standard to find scholarly articles

Research question:

*How does climate change
influence biodiversity in polar
and alpine ecosystems?*

Search query

Problems in scholarly communication

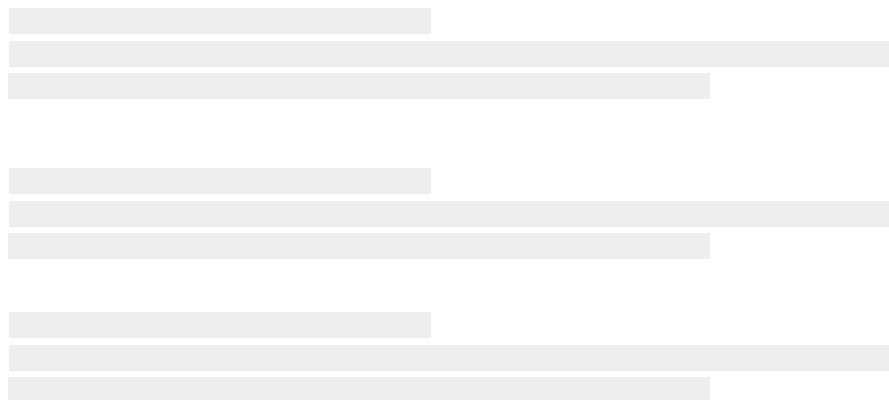
- **Keyword-based search** standard to find scholarly articles

Research question:

How does climate change influence biodiversity in polar and alpine ecosystems?

Search query

climate change AND biodiversity AND ecosystems AND ...



Problems in scholarly communication

- **Keyword-based search** standard to find scholarly articles

Problem:
Nuances of the original information
need are lost...

Problem:
Takes a lot of time to see whether the
listed articles are indeed relevant...

Problem:
... and at the end the original research
question is still not answered

Search query

climate change AND biodiversity AND ecosystems AND ...

[Redacted search results]

[Redacted search results]

[Redacted search results]

Problems in scholarly communication

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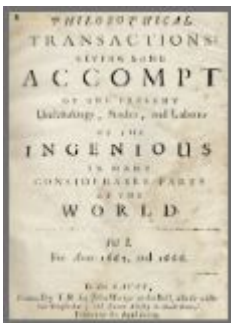
Search query

climate change AND biodiversity AND ecosystems AND ...

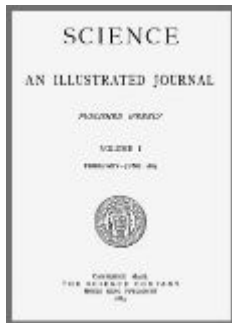
Solution:
Use AI to support researchers in the
process of literature search

Scholarly communication over the centuries

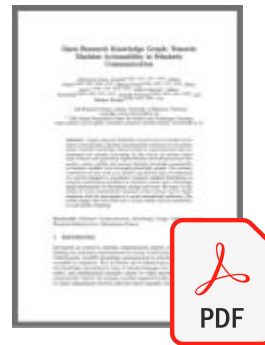
- Scholarly papers have not changed much over time → still the same **document-based** format



1620



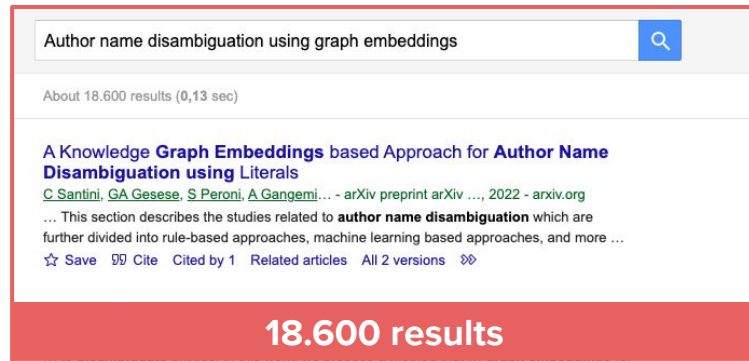
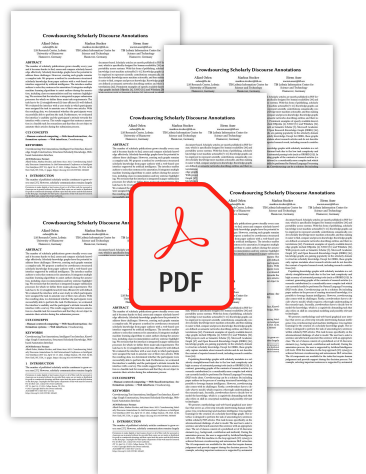
1883



2026

Scholarly communication format

- Scholarly knowledge is communicated in **narrative document-based** forms
- Lacking **machine-actionability**: cumbersome for machines to parse the content



Information need: **“Author name disambiguation”**
approaches leveraging **“graph embeddings”**

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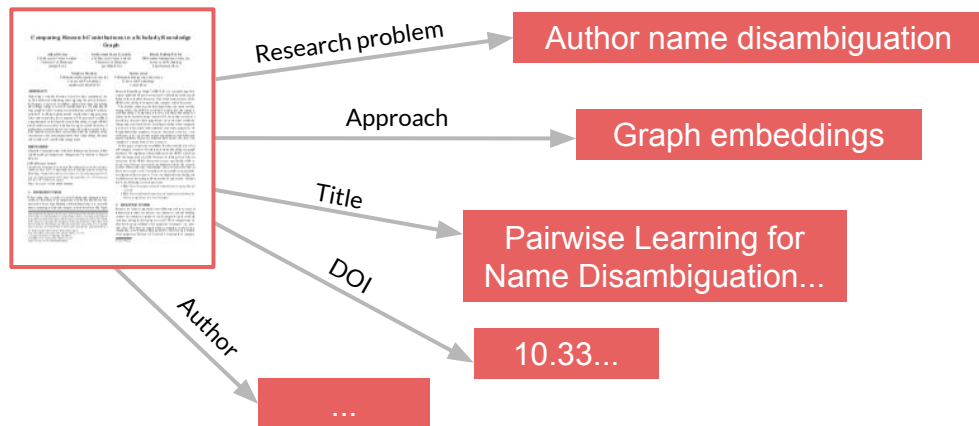
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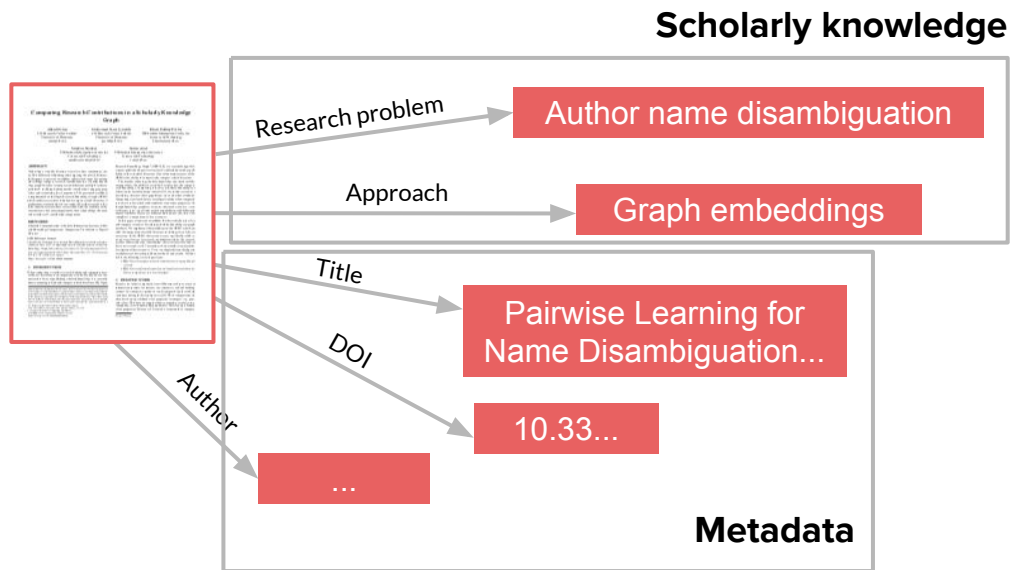
Introducing the ORKG

If **knowledge graphs** are used to represent scholarly instead, retrieving information becomes more effective



Introducing the ORKG

If **knowledge graphs** are used to represent scholarly instead, retrieving information becomes more effective



Plenty of existing initiatives



Semantic Scholar

Microsoft Academic

Google Scholar

ResearchGate

olarly instead,

of comparing ResearchGate with Semantic Scholar

ResearchGate
Semantic Scholar
Microsoft Academic
OpenAlex
CORE
Google Scholar
ResearchGate

Title

Pairwise Learning for
Name Disambiguation...

DOI

10.33...

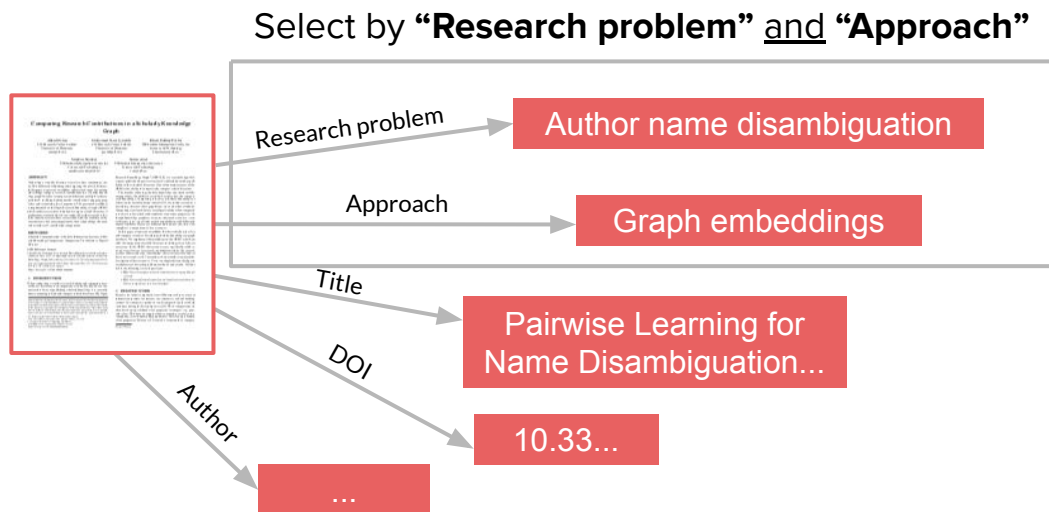
Author

...

Metadata

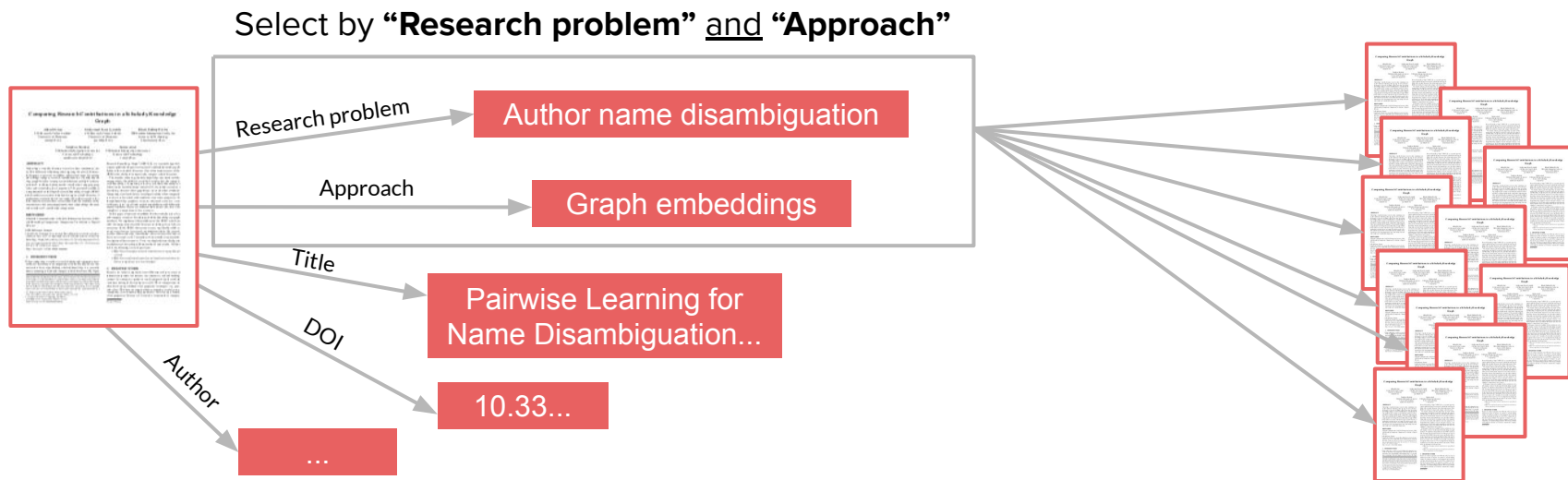
Introducing the ORKG

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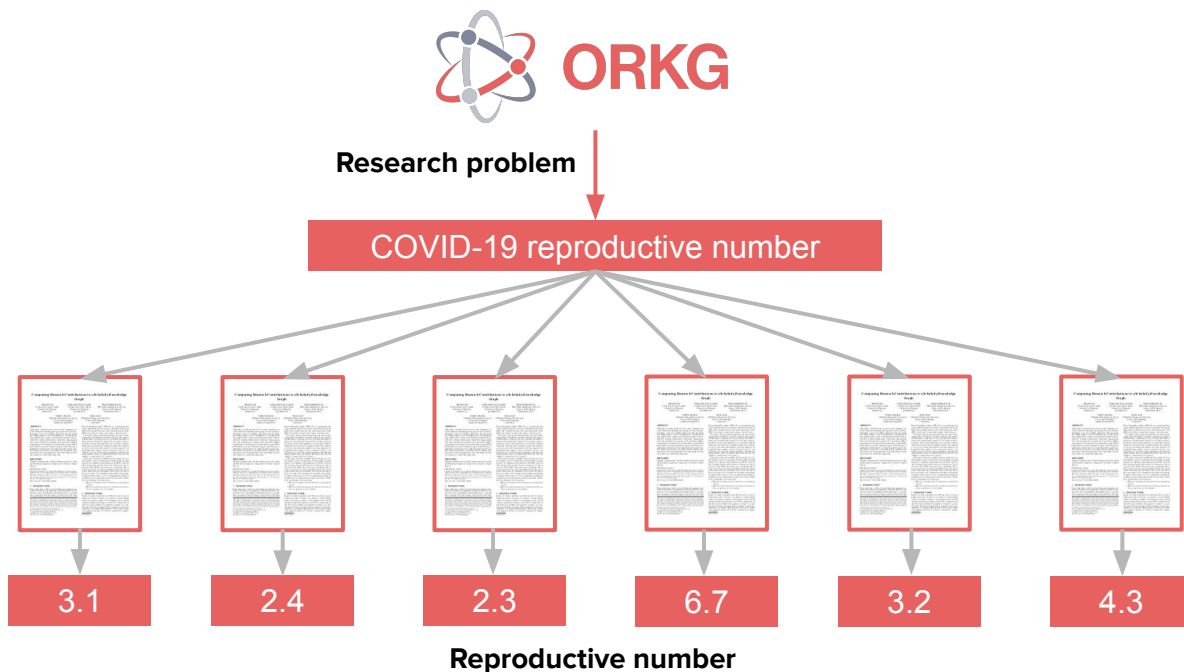
Introducing the ORKG

If **knowledge graphs** are used to represent scholarly instead, retrieving information becomes more effective



Introducing the ORKG - Benefits

If such a scholarly knowledge graph exists, the use cases are **virtually limitless!**



Introducing the ORKG - Benefits

Properties	Transmission interval estimates suggest pre-symptomatic spread of COVID-19 Contribution 1 - 2020	Nowcasting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan, China: a modelling study Contribution 1 - 2020	Time-varying transmission dynamics of Novel Coronavirus Pneumonia in China Contribution 2 - 2020	Time-varying transmission dynamics of Novel Coronavirus Pneumonia in China Contribution 1 - 2020
Has research problem	COVID-19 reproductive number	COVID-19 reproductive number	COVID-19 reproductive number	COVID-19 reproductive number
Study date	2020-01-19/2020-02-26	2019-12-31/2020-01-28	2020-01-23	2020-01-23
R0 estimates (average)*	1.97	2.68	2.92	2.9
95% confidence interval	1.45-2.48	2.47-2.86	2.28-3.67	2.32-3.63
Location	Singapore	Wuhan	China and overseas	China and overseas

ORKG - From AI assistance to AI collaboration

- Focus on manually curated data has always been a key aspect of ORKG
- AI assistance tools implemented for some years now

Add to ORKG [View graph](#)


Dataset


Software


Resource


Paper


Comparison


Other

Name The name of the item	IoT project +
Research problem The problem addressed	IoT using machine learning + 
Method Methods used in research	Machine learning +

ORKG - From AI assistance to AI collaboration

- Focus on manually curated data has always been a key aspect of ORKG
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Add to ORKG

 Dataset

 Software

 Resource

Name

The name of the item

Research problem

The problem addressed

Method

Methods used in research

Machine learning

+

Smart suggestions ? ↺ Feedback 😊 😐 😞

Based on the paper abstract and title, the following research problems might be suitable

- Enhancing Geoscientific Sensors with Raspberry Pi
- Accessible Geoscientific Sensors using Raspberry Pi
- Raspberry Pi for Geoscientific Data Acquisition
- Cost-Effective Sensors with Raspberry Pi
- IoT Solutions for Geoscientific Sensors

View graph

ORKG - From AI assistance to AI collaboration

- The next step step is AI collaboration → AI does the majority of the work and the user still **manually verifies data**

Comparison

ORKG Comparisons provide condensed overviews of the state-of-the-art literature for a particular research question. Comparisons present their information in tabular form and can be extended via additional ORKG Visualizations.

Title

Create

The title can be changed anytime after creating the comparison



AI comparison creator

Create a comparison quickly via the AI comparison creator. Provide a paper and let the AI automatically build a related work comparison for you. The only thing you have to do is review the content.

AI comparison creator

Work in progress

ORKG - From AI assistance to AI collaboration

- The next step step is AI collaboration → AI does the majority of the work and the user still **manually verifies data**

Comparison

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Title

Create

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AI comparison creator

Comparison is being created, this might take up to 10 minutes. You can leave this page and come back later to see the result.



Generate plan



Create comparison

ORKG - From AI assistance to AI collaboration

- The next step step is AI collaboration → AI does the majority of the work and the user still **manually verifies data**

Items marked with an exclamation mark are AI generated and need your review

56/58 items pending

✓ Accept all

Properties	The early phase of the COVID-19 outbreak in Lombardy, Italy		The early phase of the COVID-19 outbreak in Lombardy, Italy		The early phase of the COVID-19 outbreak in Lombardy, Italy		+
	2021 - Contribution 1		2021 - Contribution 1		2021 - Contribution 1		
Manage properties	Edit data				Edit data		
basic reproduction number	basic reproduction number		basic reproduction number		No data yet, click the button above		
↳ value	↳ 3.1		↳ 3.1				
↳ confidence interval	↳ confidence interval		↳ confidence interval				
↳ lower limit	↳ 2.9		↳ 2.9				
↳ upper limit	↳ 3.2						
time period	time period		time period				

orkg.org



AVAILABLE ONLINE

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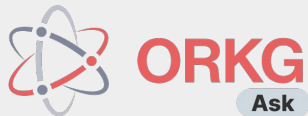
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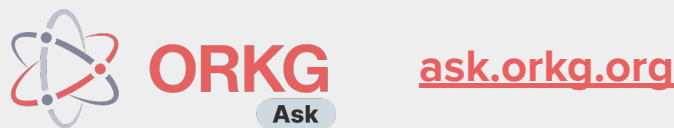
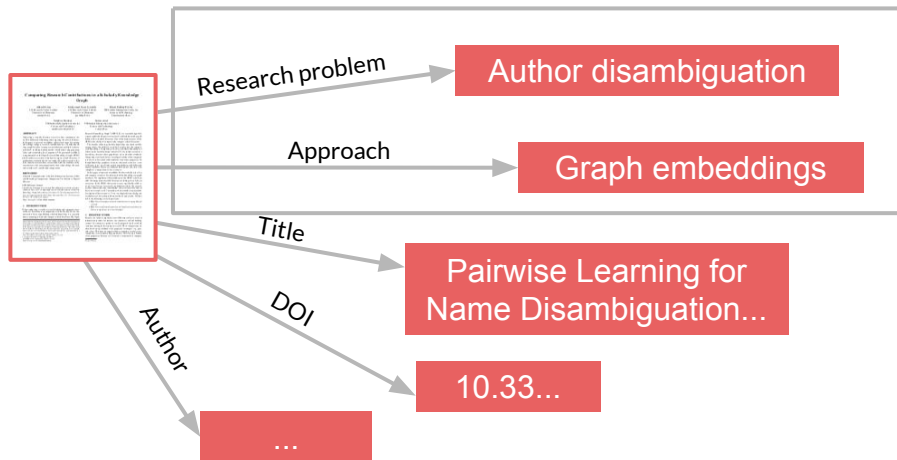
AI research assistant providing support throughout the research life cycle

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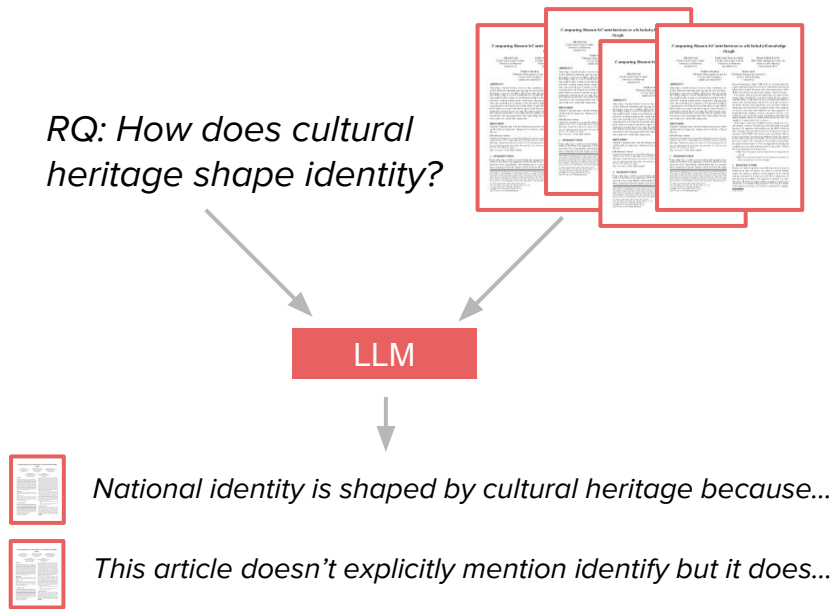
Structured vs. unstructured data



Select by **“Research problem”** and **“Approach”**



RQ: How does cultural heritage shape identity?



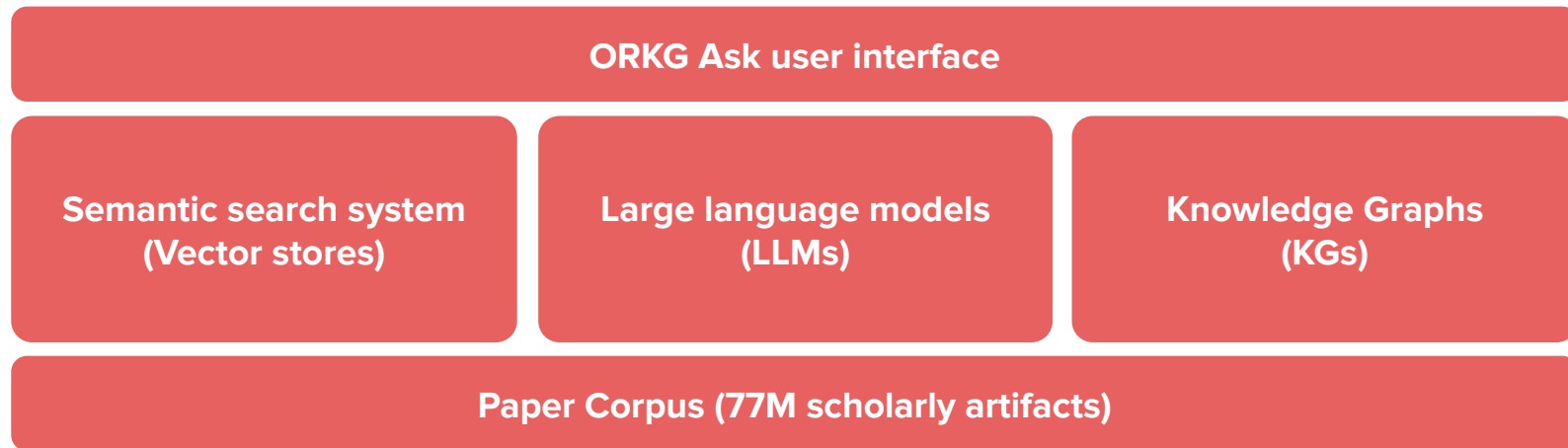
Introducing ORKG Ask

- Objective: provide a **scholarly search system** that finds related literature for a specific **research question** → Open source, reproducible and transparent
- High level system **architecture**:



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- High level system **architecture**:



Search query

How does exposure to nature affect overall health and well-being?

Search

Filters

Year

Language

Add filter...

ORKG Ask is brought to you by



Answer (based on top 5 papers)

Exposure to nature, as shown in multiple studies Overall, the evidence suggests that interaction with nature has a positive impact on health and well-being. [1]

Answer	Insights	TL;DR	Conclusions
Why is nature beneficial? The role of connectedness to nature Mayer, F. Stephan • Frantz, Cynthia M. • Bruehlman-Senecal, E. • Dolliver, Kyffin September 2009 doi:10.1177/0013916508319745			
Exposure to nature increases connectedness to nature, attentional capacity, positive emotions, and ability to reflect on a life problem. Effects are more dramatic for actual nature than for virtual nature.	The study discusses the mechanisms underlying the exposure to nature/well-being effects and the ecological validity of laboratory studies.	Exposure to nature improves connectedness to nature, enhances cognitive abilities, and boosts positive emotions.	N/A
Is Nature Relatedness Associated with Better Mental and Physical Health? Julie H. Dean • Danielle F. Shanahan • Robert Bush • Kevin J. Gaston • Brenda B. Lin • Elizabeth Barber • Lara Franco • Richard A. Fuller			
People with higher nature relatedness reported better overall health and fewer symptoms of depression, anxiety, and stress. Aspects of nature relatedness reflecting enjoyment of nature were consistently associated	The findings suggest that interventions designed to increase nature relatedness, particularly enjoyment of nature, could improve health outcomes.	Higher nature relatedness is linked to better overall health and fewer symptoms of depression, anxiety, and stress. Enjoying nature specifically may be beneficial.	Findings suggest increase nature benefits.

Literature search

Search query

How does exposure to nature affect overall health and well-being?

🔍 Search

Filters

Year

Language

Add filter...

Results filtering

ORKG Ask is brought to you by



📁 Save

🔗 Share

👁️ Hidden

📄 CSV

ORKG

✎ Edit columns

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Answer synthesis

Answer

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TL;DR

Conclusions

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N/A

Information extraction

Is Nature Relatedness Associated with Better Mental and Physical Health?

Julie H. Dean • Danielle F. Shanahan • Robert Bush • Kevin J. Gaston •

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Bibliography manager

Literature search

Search query

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🔍 Search

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Year

Language

Add filter...

ORKG Ask is brought to you by



📁 Save

🔗 Share

👁 Hidden

📄 CSV

ORKG

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Literature search

Save

Share

Hidden

CSV

ORKG

Edit columns

Search query

How does
overall h

positive impact

Filters

Year

Language

Add filter

Conclusions

13916508319745

N/A

anco • Richard A. Fuller

Findings sugges
increase nature
benefits.

- **Embeddings:** Nomic embedding model - 8K context - 768 dimensions
- **Dataset:** CORE dataset, 77M scholarly items
- **Database:** Qdrant vector database supporting filters

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Information extraction

- For each displayed article, the **question is answered**
- **Additional, customizable, properties** are extracted as well
- **Self-hosted LLM: Mistral v0.2 (Instruct) 7B**

Selected columns

- ≡ Answer ×
- ≡ Insights ×
- ≡ TL;DR ×
- ≡ Conclusions ×
- ≡ Results ×
- ≡ Methods ×
- ≡ Limitations ×
- + Add new column...

Information extraction

Reproducibility dropdown

- Transparency about how results are generated
- Crucial for structured literature reviews

Reproducibility menu

Prompt

Used to extract knowledge

Seed

Used for reproducible LLMs responses

Context: *Abstract*

Used as information context

Model: *Mistral 7b*

Used Large Language Model (LLM)

Prompt

System prompt

Download Copy

You are an analysis-support bot that operates on scholarly documents and follows instructions. You will get as an input: the research paper content and a set of properties/criteria to look for. You will extract the values corresponding to the list of provided predicates. Limit the values to only the content without prefixing it with the paper contains or the text says. Your output should ALWAYS be like this:
`<extraction><key>PROPERTY</key><value>VALUE</value></extraction>`
Avoid lengthy values (one sentence MAX), rather split them into multiple values.
If the property contain multiple values, then your output MUST be like this:
`<extraction><key>PROPERTY</key><values><value>VALUE1</value><value>VALUE2</value></values></extraction>`
If you DO NOT find the value in the content then your output MUST BE THIS:
`<extraction><key>PROPERTY</key><value>UNKNOWN</value>`

User prompt

☐ Show context

Download Copy

```
## properties
{properties placeholder}.
## paper content
{content placeholder}.
```

Higher nature relatedness is linked to better overall health and fewer symptoms of depression, anxiety, and stress. Enjoying nature specifically may be beneficial.

Findings suggest increase nature benefits.



Search

My library



Answer synthesis

CSV



Edit columns

Search query

How does exposure to nature affect overall health and well-being?

Search

Filters

Year

Language

Add filter...

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Answer (based on top 5 papers)

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Answer

Insights

TL;DR

Conclusions



Why is nature beneficial? The role of connectedness to nature



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N/A



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Answer synthesis

Save

Share

Hidden

CSV

ORKG

Edit columns

- **Summarized** answer from **top 5 articles**
- Serves as quick answer to the research question

You are an analysis-support bot of scholarly documents that follows instructions.
You will generate a comprehensive answer to the given research question (but no more than three/four sentences)
solely based on the content provided.
Cite the number of the content referenced for each claim like this:
[1] for a single reference or [2][3] for multiple references.
Emphasize brevity, focusing on essential details and omitting unnecessary information.
Avoid adding the question in the answer and Do not include any notes or comments.

Search query

How does exposure to nature affect overall health and well-being?

Results filtering

Filters

Year

Language

Add filter...

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Results filtering

Save

Share

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CSV

ORKG

Edit columns

Filters

Year

1950

till

2024

Reset

Language

Search...

- ☐ Afar
- ☐ Abkhazian
- ☐ Avestan
- ☐ Afrikaans
- ☐ Akan

Standard filters

Abstract (1)

Contains
mental health

×

Add filter...

Field *
Abstract

▼

Contains ▼ outdoors

Add

Custom filters

Add filter...

Field *
Topic

▼

Topic
Machine learning

▲

Azure Machine Learning Studio
Probabilistic Machine Learning
Robust Machine Learning
Ensemble Averaging (Machine Learn...
Kernel Methods For Machine Learning

Semantic filters

Search query

How does exposure to nature affect overall health and well-being?

Search

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Year

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Add filter...

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Bibliography manager

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Bibliography manager

Save

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CSV

ORKG

Edit columns

- Add search results to private collections
- Add items from private collections to search result pages

Newest first

+ Add

Collections

Favorites ...

My latest paper ...

+ Add new collection...

☐ **Items**

Why is nature beneficial? The connectedness to nature

☐ Mayer, F. Stephan • Frantz, Cy

September 2009

doi [10.1177/0013916508319745](https://doi.org/10.1177/0013916508319745)

BibTeX

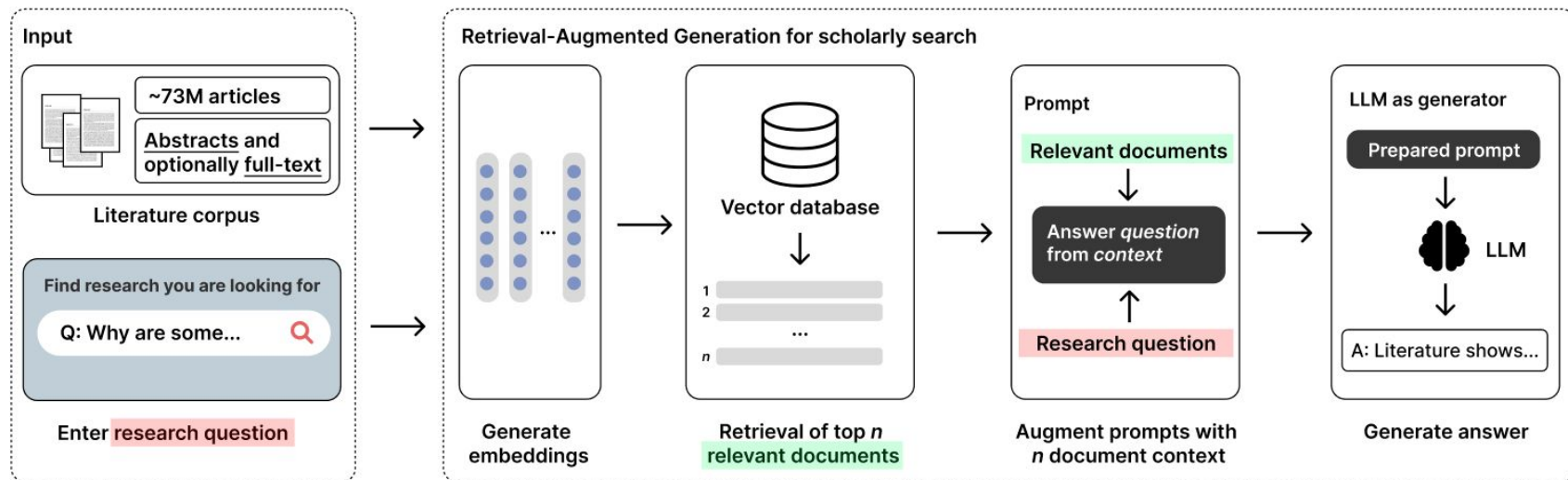
Title

DOI

Manual entry

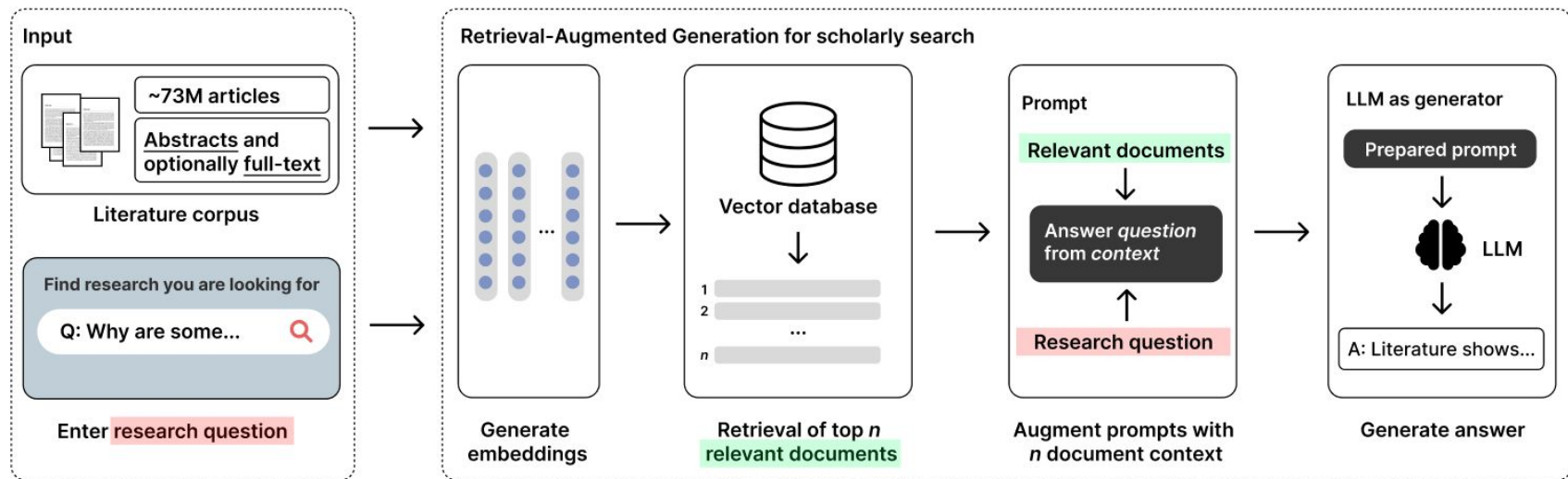
Technical implementation

<https://doi.org/10.26069/greynet-2026-000.936-gn>



Technical implementation

<https://doi.org/10.26069/greynet-2026-000.936-gn>

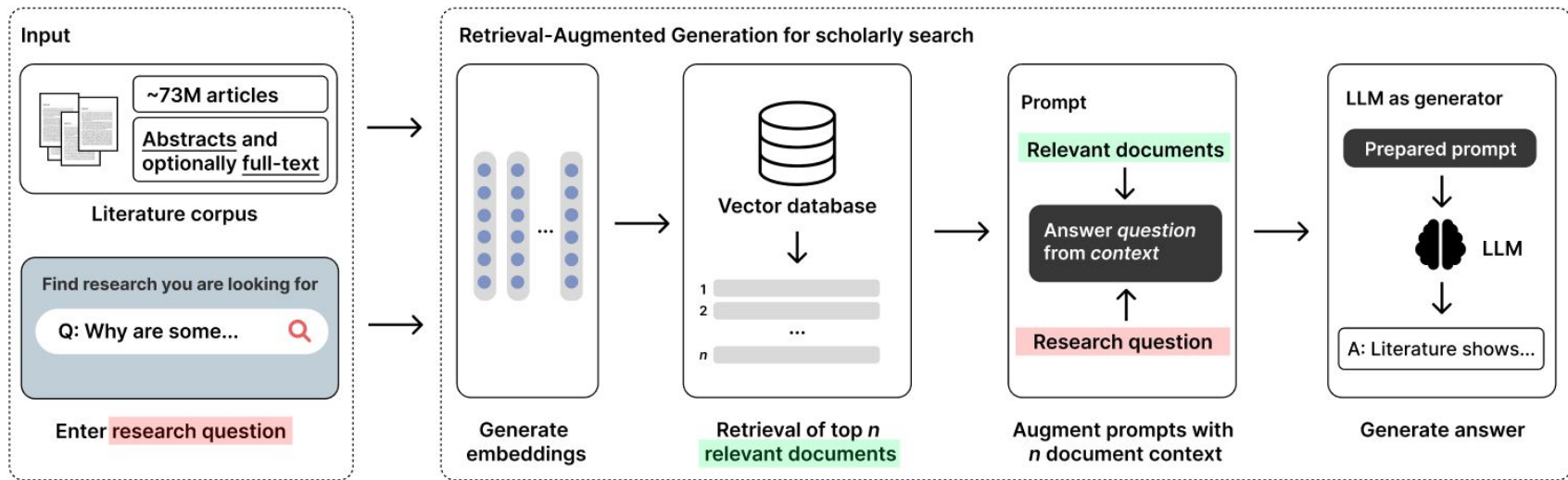


- The server is running with
 - 1TB of memory RAM
 - 15TBs of SSD storage
 - 128 CPU cores
 - 7 GPU cards: Nvidia L4 4x24GB, Nvidia L40s 2x46GB, Nvidia H100 1x82GB

- ORKG Ask uses Mistral **v0.2** (Instruct) **7B**

Technical implementation

<https://doi.org/10.26069/greynet-2026-000.936-gn>



- The server is running

- 1TB of memory
 - 15TBs of storage
 - 128 CPU cores
 - 7 GPU cards
 - 2x46GB, NVIDIA H100 80GB

LLMs run **locally at TIB**. In the future, we will support more powerful cloud models, and give users freedom to **choose their preferred model**

- ORKG Ask uses Mistral **v0.2** (Instruct) **7B**

ask.orkg.org



AVAILABLE ONLINE!

Today's outline

1 Problems in scholarly communication

2



orkg.org

Manually curated knowledge graph of scholarly knowledge

3



ask.orkg.org

Scholarly search and exploration system using LLMs

4

TIB AISSISTANT

aissantant.tib.eu

AI research assistant providing support throughout the research life cycle

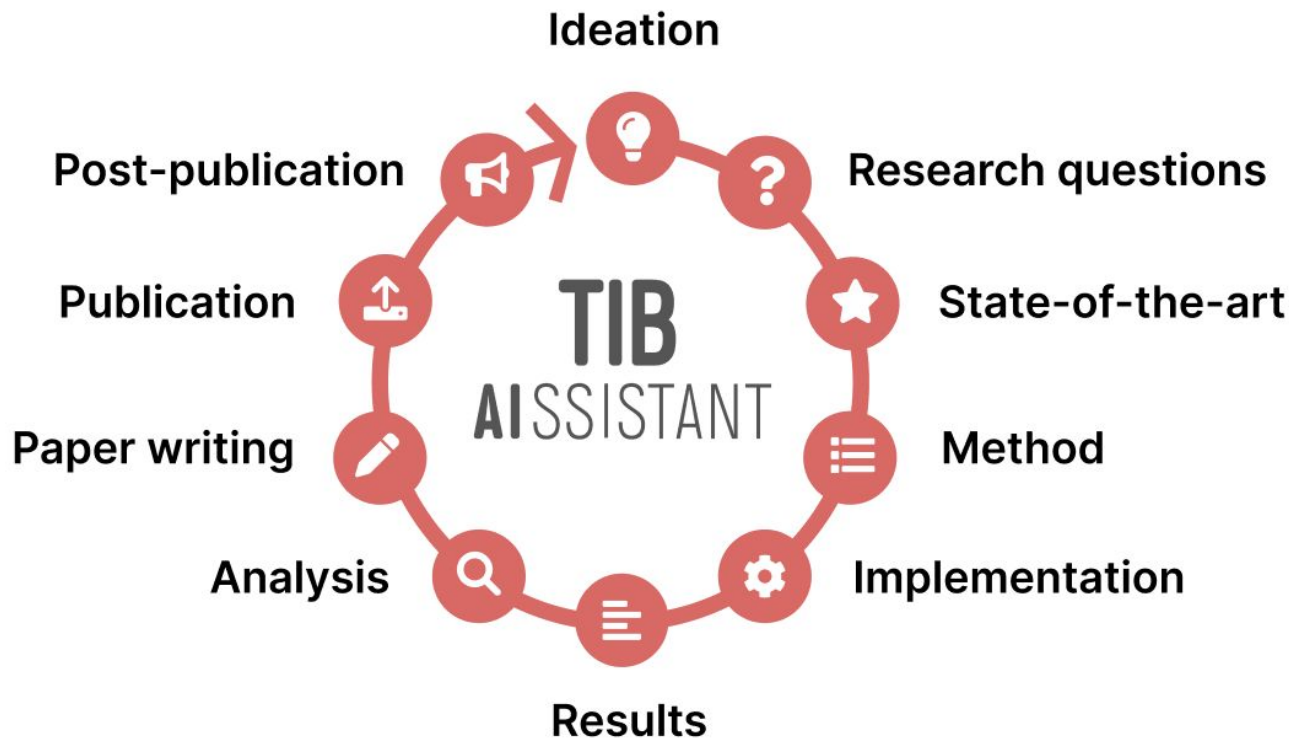
5 Q&A

Introducing the TIB AIssistant

- AI-support throughout the **research life cycle**
- Collection of AI approaches for scholarly research
- Domain-agnostic and flexible



Introducing the TIB AIssistant



Introducing the TIB Alssistant

Ideation



Helps researchers with ideas of new topics, research directions, or gaps in the literature.

Input: papers, personal profiles

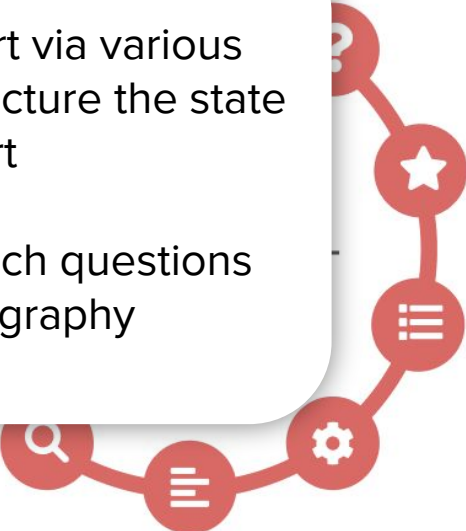
Output: list of ideas

Introducing the TIB Alssistant

Finds state of the art via various platforms, help to structure the state of the art

Input: topics, research questions

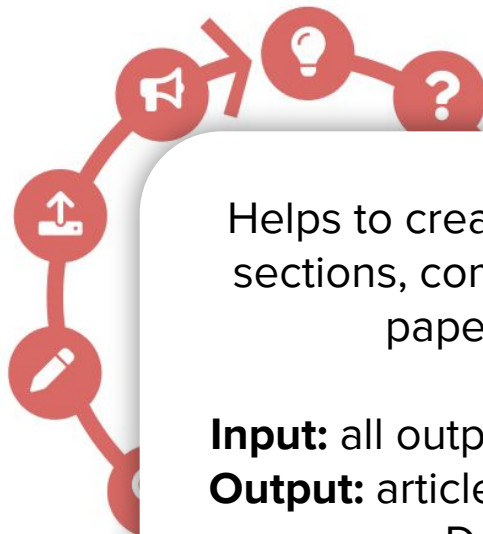
Output: bibliography



State-of-the-art

Introducing the TIB Alssistant

Paper writing



Helps to create an initial draft of sections, come up with suitable paper titles, etc.

Input: all output of previous steps

Output: article draft (LaTeX, Word, Docs etc.)

Introducing the TIB Alssistant | What we are solving

Challenges of AI for scholarly research:

Overwhelming: many approaches, no general guidelines

AI literacy: effectively instructing LLMs can be challenging

Lacking collaboration: no well-organized sharing of domain-specific AI approaches

Introducing the TIB Alssistant | What we are solving

Challenges of AI for scholarly research:

Fragmentation: many approaches, no general guidelines

Many researchers are not leveraging AI to their advantage →
a growing divide between researchers who do and don't

Lacking collaboration: no well-organized sharing
domain-specific AI approaches

Introducing the TIB AIAssistant | Main concepts

1. Assistants

- Agents to perform specific research tasks
- System prompt + model
- Metadata: name, description, creator, etc.



2. Tools

- Generally connects to REST APIs
- Often existing scholarly services

3. Assets

- Share data and context between assistants
- Input and output

Introducing the TIB AIssistant | Organization features

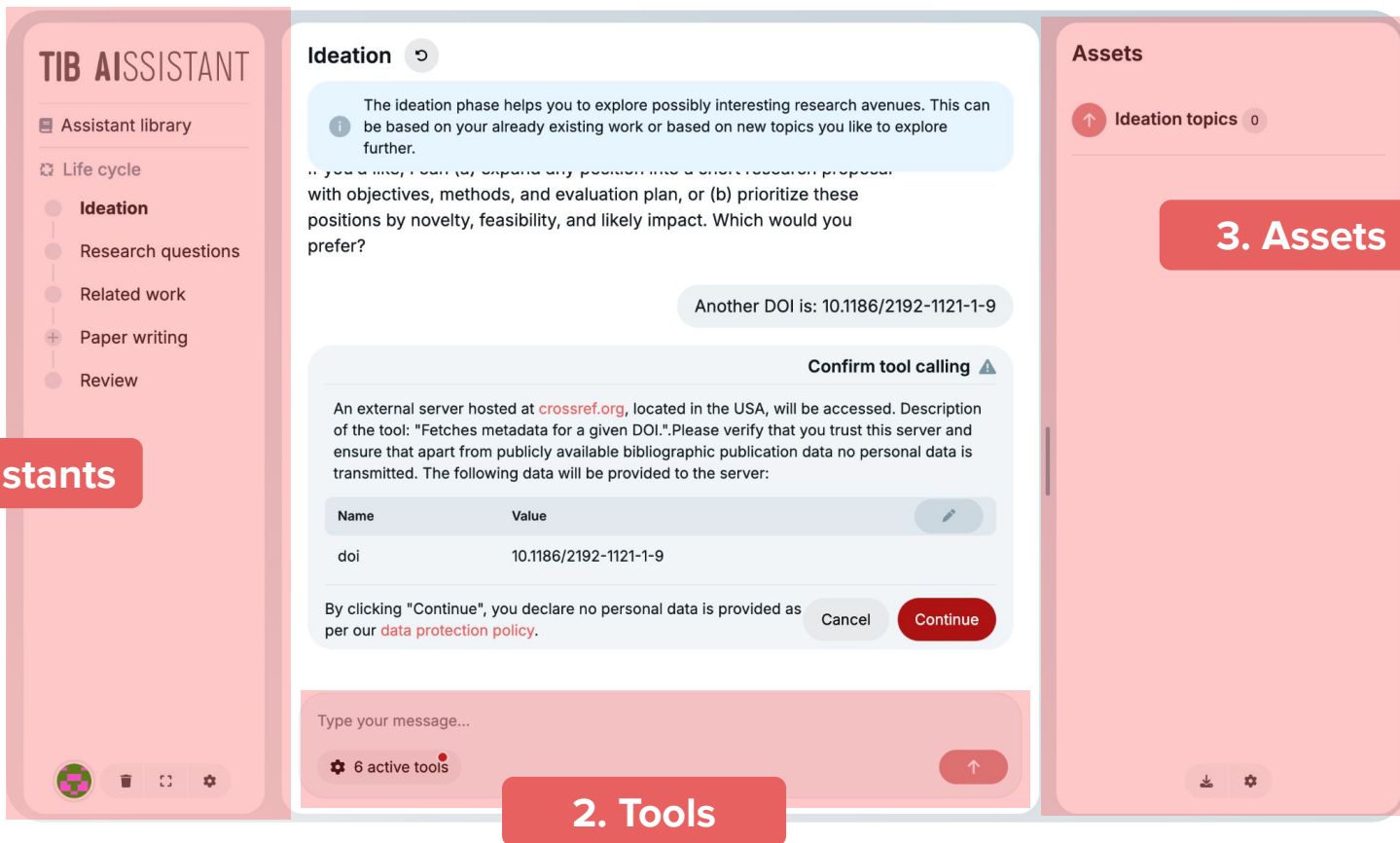
The screenshot displays the TIB AIssistant interface, which is organized into three main vertical panels. The left panel, titled 'TIB AISSISTANT', contains a sidebar with 'Assistant library' and 'Life cycle' sections. The 'Life cycle' section lists five steps: 'Ideation' (highlighted with a red circle), 'Research questions', 'Related work', 'Paper writing', and 'Review'. A red callout box labeled '1. Assistants' points to this sidebar. The middle panel, titled 'Ideation', contains a text area with instructions on how to use the ideation phase, a text input field with the value 'Another DOI is: 10.1186/2192-1121-1-9', and a 'Confirm tool calling' section. This section includes a warning icon and a description of an external server hosted at crossref.org. Below this is a table with two columns, 'Name' and 'Value', containing the entry 'doi' and '10.1186/2192-1121-1-9'. At the bottom of this panel is a text input field labeled 'Type your message...' and a button labeled '6 active tools'. A red callout box labeled '2. Tools' points to this bottom section. The right panel, titled 'Assets', contains a section labeled 'Ideation topics' with a count of '0'. A red callout box labeled '3. Assets' points to this section. The bottom of the interface features a row of icons: a green and purple square icon, a trash can, a refresh icon, a settings gear, and a download icon.

1. Assistants

2. Tools

3. Assets

Introducing the TIB AIssistant | Organization features



Introdu

Preset selection

1. Assistant

Life cycle

Configure life cycle

Life cycle

Presets

- Ideation
- Research ques...
- Related literature
- Method
- Implementation
- Results
- Analysis
- Paper writing
 - Title
 - Related work
 - Review
 - Publication
 - Post-publication

https://doi.org/10.26069/greynet-2026-000.936-gn

Search assistants

Search & filtering

Search

Search

Field

Phase

Sort

Search assistants...

Computer science

Ideation

Name A-Z



Ideation



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team



Research questions



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team



Related literature



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team



Method



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team



Implementation



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team



Results



The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)



12



Ideation



Computer science



TIB Alssistant team

1

2

3

4

5

...

10

1,032 items

Items

20



Metadata

Detailed info

Introdu

1. Assist

Configure life cycle

https://doi.org/10.26069/greynet-2026-000.936-gn

Life cycle Presets Search assistants

Search

Life cycle presets

Search pipelines

Search

Field

Sort

Search assistants...

Computer science

Likes

Select **Default pipeline**

This is a generic pipeline that works well for demonstration purposes and to test out the system

12 Computer science TIB Assistant team

Select **Biodiversity use case**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Computer science TIB Assistant team

Select **Use case for examples**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Computer science TIB Assistant team

1 2 3 4 5 ... 10 1,032 items

Items 20

Type your message here

TIB Assistant team

TIB Assistant team

1 2 3 4 5 ... 10 1,032 items

Items 20

Introdu

1. Assistant

Configure life cycle

Life cycle Presets

Ideation

Research ques...

Related literature

Method

Implementation

Results

Analysis

Paper writing

Title

Related work

Review

Publication

Post-publication

<https://doi.org/10.26069/greynet-2026-000.936-gn>

Search assistants Search

Search

Field

Phase

Sort

☐ **Ideation**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Ideation Computer science

TIB Alssistant team

☐ **Research questions**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Ideation Computer science

TIB Alssistant team

☐ **Related literature**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

Ideation Computer science

TIB Alssistant team

☐ **Method**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Ideation Computer science

TIB Alssistant team

☐ **Implementation**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Ideation Computer science

TIB Alssistant team

☐ **Results**

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12 Ideation Computer science

TIB Alssistant team

1 2 3 4 5 ... 10

1,032 items

Items 20

Configure life cycle

<https://doi.org/10.26069/greynet-2026-000.936-gn>

Life cycle

Presets



Search assistants

Search

Ideation

Search

Field

Phase

Sort

Ideation

The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing [Read more.](#)

12

Ideation

Computer science

TIB Alssistant team

System prompt

You are a paper writing assistant for academic papers. Your task is to draft an engaging introduction that sets up the paper's contribution. Follow these steps: 1. Open with a compelling statement or question to capture interest. 2. Clearly describe the problem, debate, or knowledge gap addressed. 3. State the central argument, hypothesis, or contribution in one sentence.

Model

gpt-5-mini

Tools

ORKG Ask: find literature

Semantic scholar: find literature

Google Scholar: find literature

Required input assets

DOI

Output assets

Ideation topics

1. Ass

12

Ideation

Computer science

TIB Alssistant team

12

Ideation

Computer science

TIB Alssistant team

1

2

3

4

5

...

10

1,032 items

Items

20

Introducing the TIB AIssistant | Organization features

The screenshot displays the TIB AIssistant interface with three main panels:

- TIB AISSISTANT Panel (Left):** Contains a sidebar with 'Assistant library' and 'Life cycle'. The 'Life cycle' section lists: Ideation (selected), Research questions, Related work, Paper writing, and Review.
- Ideation Panel (Center):**
 - Header: 'Ideation' with a dropdown arrow.
 - Info box: 'The ideation phase helps you to explore possibly interesting research avenues. This can be based on your already existing work or based on new topics you like to explore further.'
 - Text: 'If you already have an idea, expand any position into a short research proposal with objectives, methods, and evaluation plan, or (b) prioritize these positions by novelty, feasibility, and likely impact. Which would you prefer?'
 - Text box: 'Another DOI is: 10.1186/2192-1121-1-9'
 - Section: 'Confirm tool calling' with a warning icon.
 - Text: 'An external server hosted at crossref.org, located in the USA, will be accessed. Description of the tool: "Fetches metadata for a given DOI." Please verify that you trust this server and ensure that apart from publicly available bibliographic publication data no personal data is transmitted. The following data will be provided to the server:'
 - Table:

Name	Value
doi	10.1186/2192-1121-1-9
 - Text: 'By clicking "Continue", you declare no personal data is provided as per our [data protection policy](#).'
 - Buttons: 'Cancel' and 'Continue'.
 - Input area: 'Type your message...' with a '6 active tools' indicator and an 'up' arrow button.
- Assets Panel (Right):** Header 'Assets' with a sub-header 'Ideation topics 0' and an 'up' arrow icon.

At the bottom center, a red button labeled '2. Tools' is visible.

Tools for assistant

Curated tools

<https://doi.org/10.26069/grey-net-2026-000.936-gn>

Search & filtering

Tool library

Activated tools (15)

Comparison search
orkg.org



LLM extraction
ask.orkg.org



Paper search
arxiv.org



Unpaywall search
mcp.aissistant.tib.eu



PubMed
example.org



Scopus
example.org



Web of Science
example.org



ResearchGate
example.org



Mendeley
example.org



CORE
example.org



Dimensions
example.org



IEEE Xplore
example.org



Zotero
example.org



Tool gallery

MCP browser

Search

Search

Search tools...



Field

Computer science

Sort

Name A-Z



Comparison search
orkg.org

Find an article from the ORKG



12



Computer science



LLM extraction
ask.orkg.org

Find an article from the ORKG



12



Computer science



ORKG: comparison search
Domain

Find an article from the ORKG



12



Computer science



ORKG: comparison search
Domain

Find an article from the ORKG



12



Computer science



ORKG: comparison search
orkg.org

Find an article from the ORKG



12



Computer science



Paper search
arxiv.org

Find an article from the ORKG



12



Computer science



ORKG: comparison search
Domain

Find an article from the ORKG



12



Computer science



ORKG: find related articles
Domain

Find an article from the ORKG



12



Computer science

Metadata

1

2

3

4

5

...

10

1,032 items

Items

20

Intro

View "raw" tools

<https://doi.org/10.26069/greynet-2026-000.936-gn>

Add custom servers

Tool library

Activated tools (15)

Comparison search
orkg.org

LLM extraction
ask.orkg.org

Paper search
arxiv.org

Tool gallery

MCP browser

Manage MCP servers

<https://mcp.ask.orkg.org/sse>

+ Add all

Search tools...



extractLlmValues

ask.orkg.org

Extracts the properties with their [Read more](#)



searchComparison

ask.orkg.org

Find an article from the ORKG



vectorStoreSearch

ask.orkg.org

Search in the vector store



createIndex

ask.orkg.org

Find an article from the ORKG



getStats

ask.orkg.org

Some some service stats

<https://mcp.andybrandt.net/arxiv>

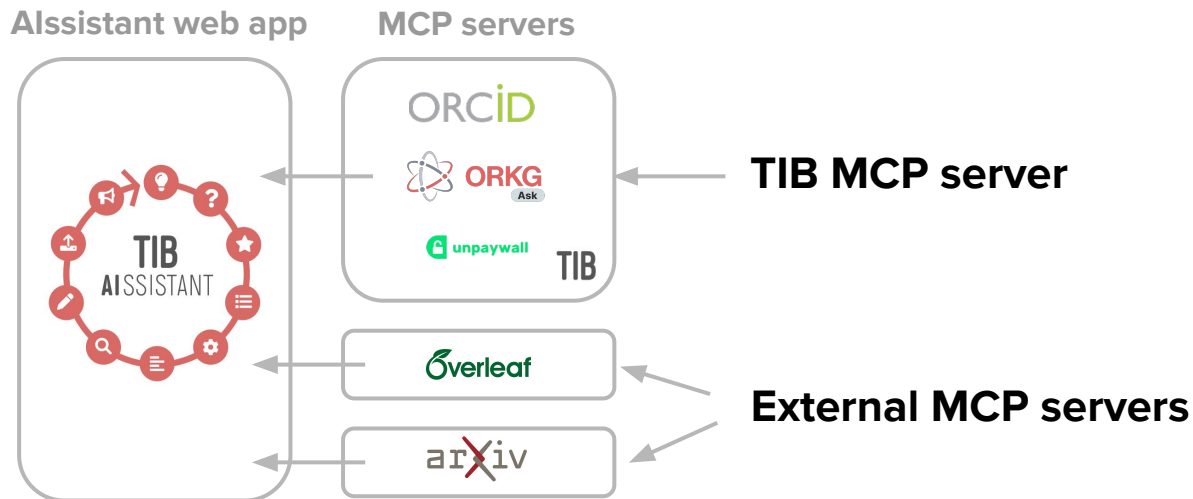
<https://mcp.ask.orkg.org/sse>

MCP servers

2. TOOLS

TIB MCP server

- **Curated set of scholarly tools**, not a *dump* from existing APIs
- Provide a set of **reusable scholarly tools** for AI workflows



aissant.tib.eu



EARLY ALPHA VERSION AVAILABLE ONLINE!

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