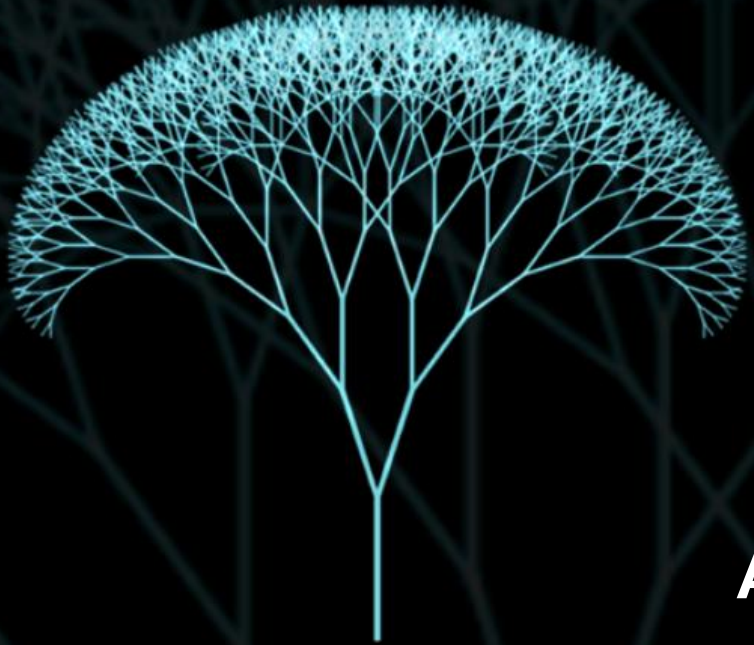




AI₄LAM

Artificial Intelligence for Libraries, Archives & Museums

**Advancing AI in Libraries, Archives, and Museums
through Collaboration with the Geant Community**

Ines Vodopivec



AI4LAM: THE POWER OF CHANGE

**INDIVIDUALLY, WE ARE SLOW AND ISOLATED.
TOGETHER, WE CAN GO FASTER AND FARTHER!**



KEY FACTS

- AI4LAM first MoU in 2018
- Community of 1.400+ members
- Working groups and regional chapters
- new MoU Implementation in 2025

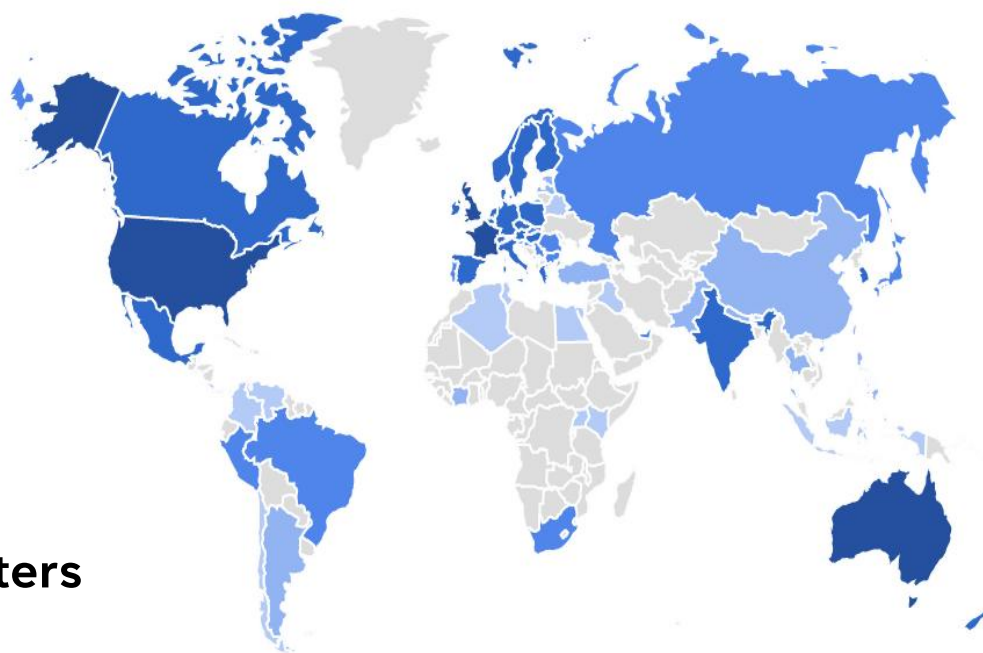


LIBRARY



{ BnF

Global community and participation



COUNTRY

United States

Australia

United Kingdom

France

Netherlands

Germany

Norway

GLAM representatives

- Managers, directors, leaders
- librarians, researchers, collection curators, archivists...
- IT system developers
- data managers and scientists

University personnel

- professors, lecturers and educators
- librarians
- students
- Open Science officers

IT representatives

- AI developers
- Infrastructure developers
- Data scientists
- LLM researchers
- ...

**AI4LAM:
FOR WHOM?
BY WHOM?**

**COMMUNITY
DRIVEN**



MAIN AREAS OF WORK:

Accelerating

- development,
- testing,
- evaluation and
- integration

of AI tools and services into institutional workflows for innovative solutions and accessibility;

Advancing

- professional skills with
- educational programs

for enhanced efficiency and improved accuracy;

Advocating for change with

- global, regional, and national impact
- reaching out to smaller institutions and
- forming regional branches.

The British Library - series of AI debates

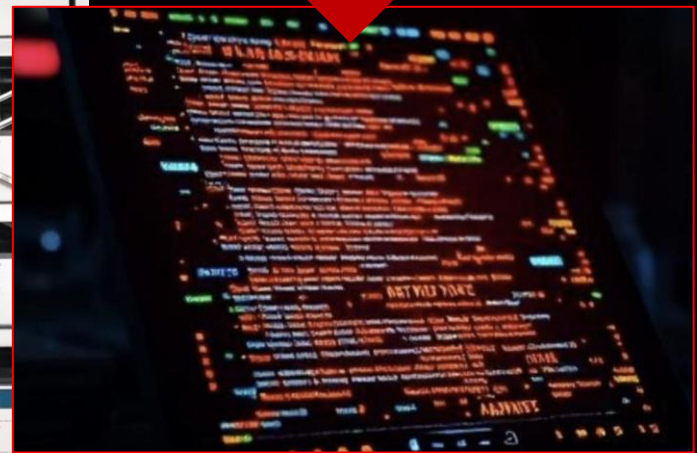


December 3 – 5, London

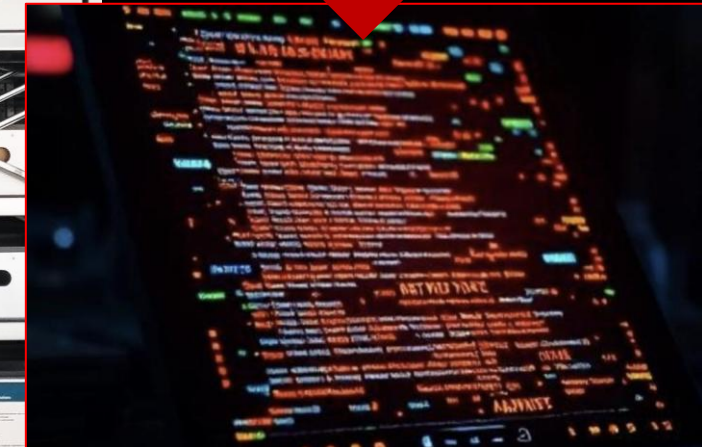
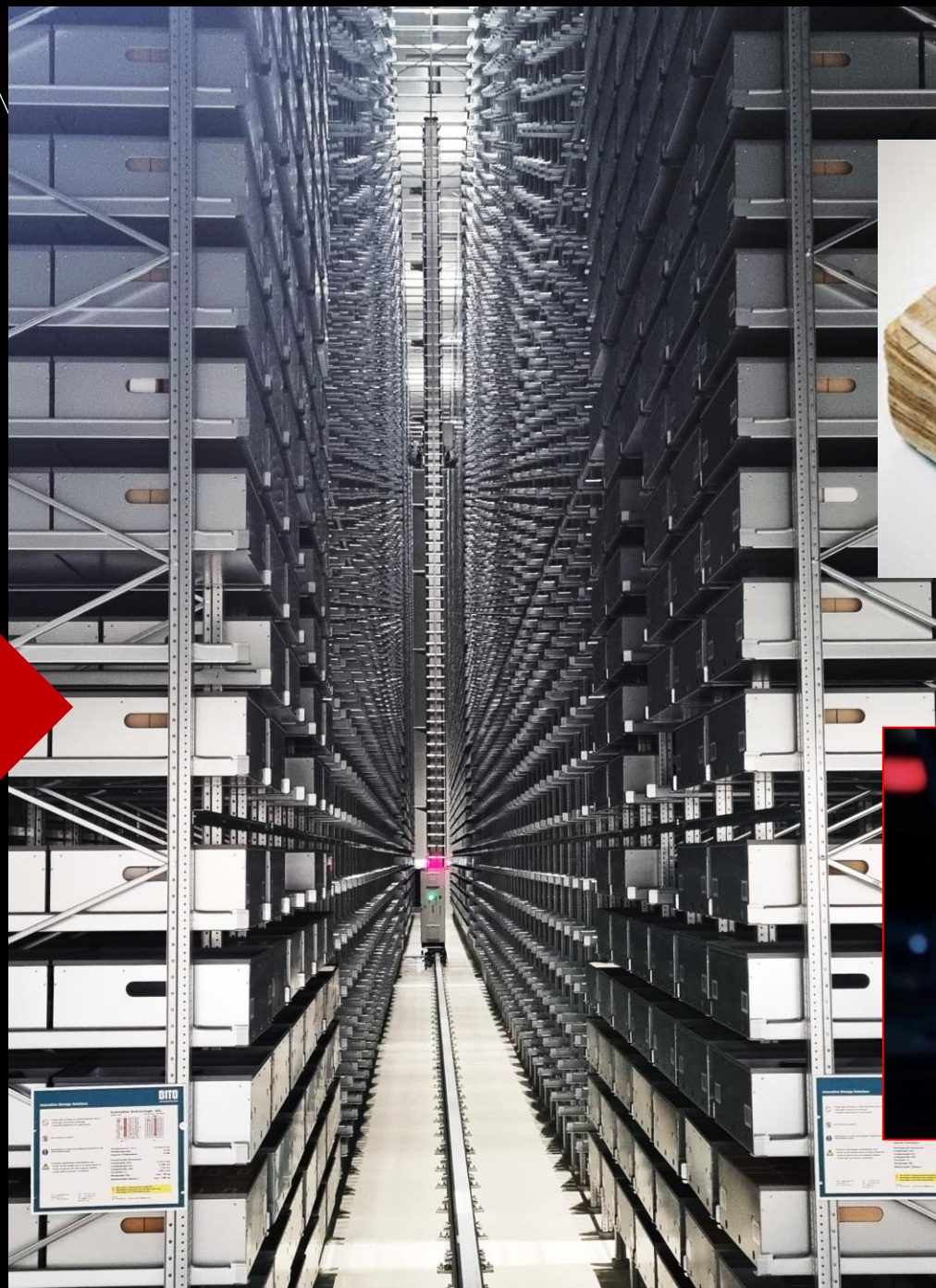
Fantastic Futures 2025



AI IN LAM WORKFLOWS



- Digitised material
- Digitally born material
- Harvested web
- Databases and repositories
- Research data
- E-resources



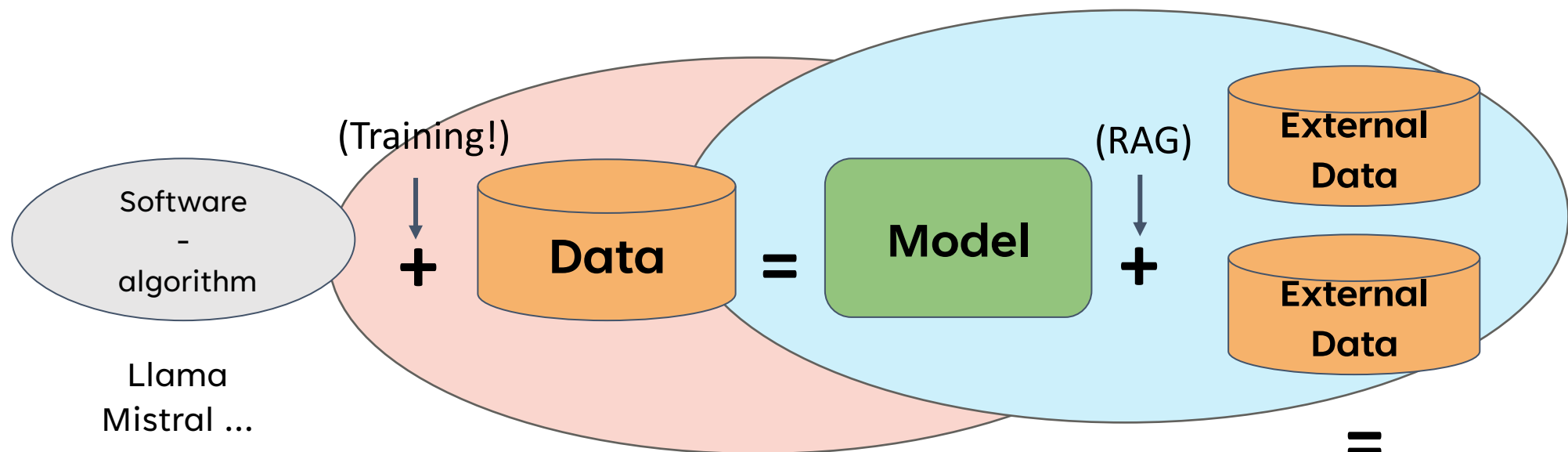


The Mountain Vault,
Norway National Library,
Mo i Rana, Norway

AI4LAM community global impact:

- collective power
- drives innovation
- responsible,
- reliable, and
- trustworthy AI solutions
- development and societal growth.





GLAM DATA!

- Digitised / Digitally Born Cultural Heritage
- Different Media Types to support user experience (for persons with disabilities etc.)

- Natural Language Processing (NLP)
- Chatbots
- Transcribers
- Analytical tools
- Recommendation Systems
- Virtual Assistants and Onsite Visitor
- Translations and exhibition guides

- Scientific support (any scientific field)
- Industry and tourism
- Culture
- Education

WHY GLAM DATA IS IMPORTANT?

OPEN DATA!
FAIR DATA!

DATA

= integral / =
nonintegral part
of models

Quality data for
training, but also
external
unprocessed data

Dynamic external
knowledge
retrieval

Research support,
automated
descriptions ...

Copyrights: control over data access and use!

The diagram illustrates the AI Data Ecosystem, showing the flow of data and the roles of various components:

- 1 GLAM:** data production, acquisition, access, reuse, source of data
- 2 DATA STORAGE:** long term preservation
- 3 EXTERNAL SYSTEMS:** Repositories, digital libraries, catalogues, Web, databases
- 4 AI FACTORIES:** system infrastructure, development, training, deployment of AI models
- 5 Models** and **5 Datasets** (representing the output of AI factories)
- 6 END USERS:** individual, institutions, industry

The flow is as follows:

- Data flows from **2 DATA STORAGE** to **1 GLAM**.
- Data flows from **1 GLAM** to **3 EXTERNAL SYSTEMS**.
- Data flows from **3 EXTERNAL SYSTEMS** to **4 AI FACTORIES**.
- Data flows from **4 AI FACTORIES** to **5 Models** and **5 Datasets**.
- Data flows from **5 Models** and **5 Datasets** to **6 END USERS**.
- A feedback loop exists from **6 END USERS** back to **2 DATA STORAGE**.

WHY GLAM NEED SAFE INFRASTRUCTURE FOR AI?

TESTING,
EVALUATION,
COMPARISON

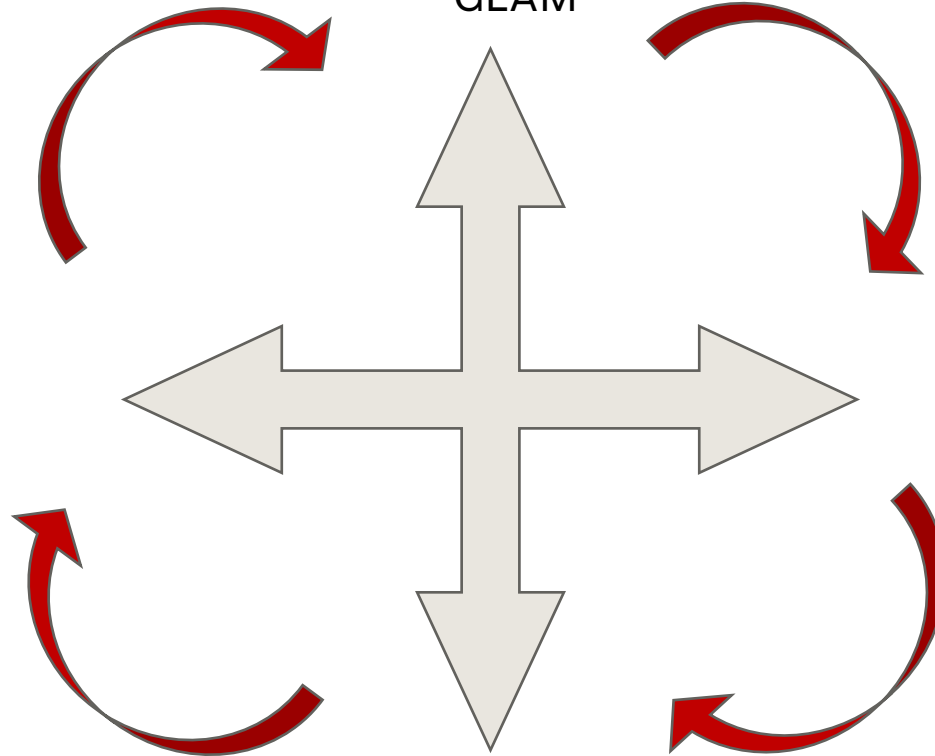
For internal use:

Like

- metadata creation,
- enhancing automatization,
- support of working processes,
- improving accuracy of OCR etc.

ADDRESSING
INTERNAL
ISSUES

AI developed on the
market and adopted by
GLAM



AI developed by GLAM and
used in real-time applications

FOLLOWING
USERS NEEDS
AND BEHAVIOUR

For external use:

Like

- chatbots and retrieval systems,
- research and education,
- segmentation of digital data etc.

ADAPTING USER-ORIENTED
SERVICES

EXAMPLES FROM PRACTICE

AI4LAM institutions:

- National Library of Norway
- Bibliothèque nationale de France
- National Library of Luxembourg



NATIONAL LIBRARY OF NORWAY

**TESTING if copyrighted material
improves LLM model performance?**

NLN AI-lab, Javier de la Rosa et al.



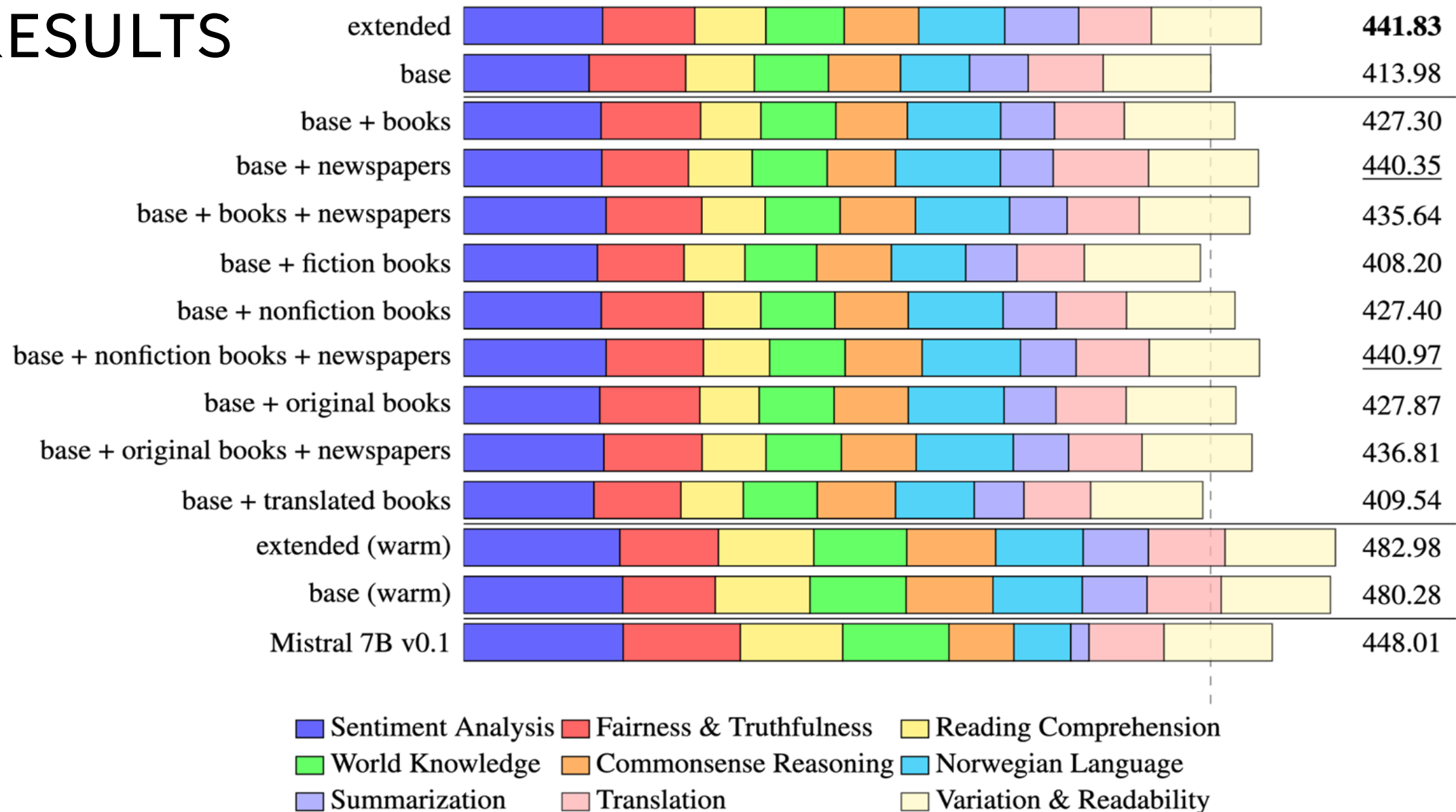
LLM IN THE HEALTH AND CARE SERVICES: NORWEGIAN CASE



- The Mímir project and training on copyrighted material
- Analysis of the impact of copyrighted material on the linguistic quality of language models.
- DATA:
 1. *Freely available data*
 2. *Data with limited access due to rights considerations*
 3. *Data with limited access due to confidentiality and privacy concerns*



RESULTS





BIBLIOTHÈQUE NATIONALE DE FRANCE

**AI-driven automatic indexing of large-scale
iconographic content in Gallica Images**

Jean-Philippe Moreux

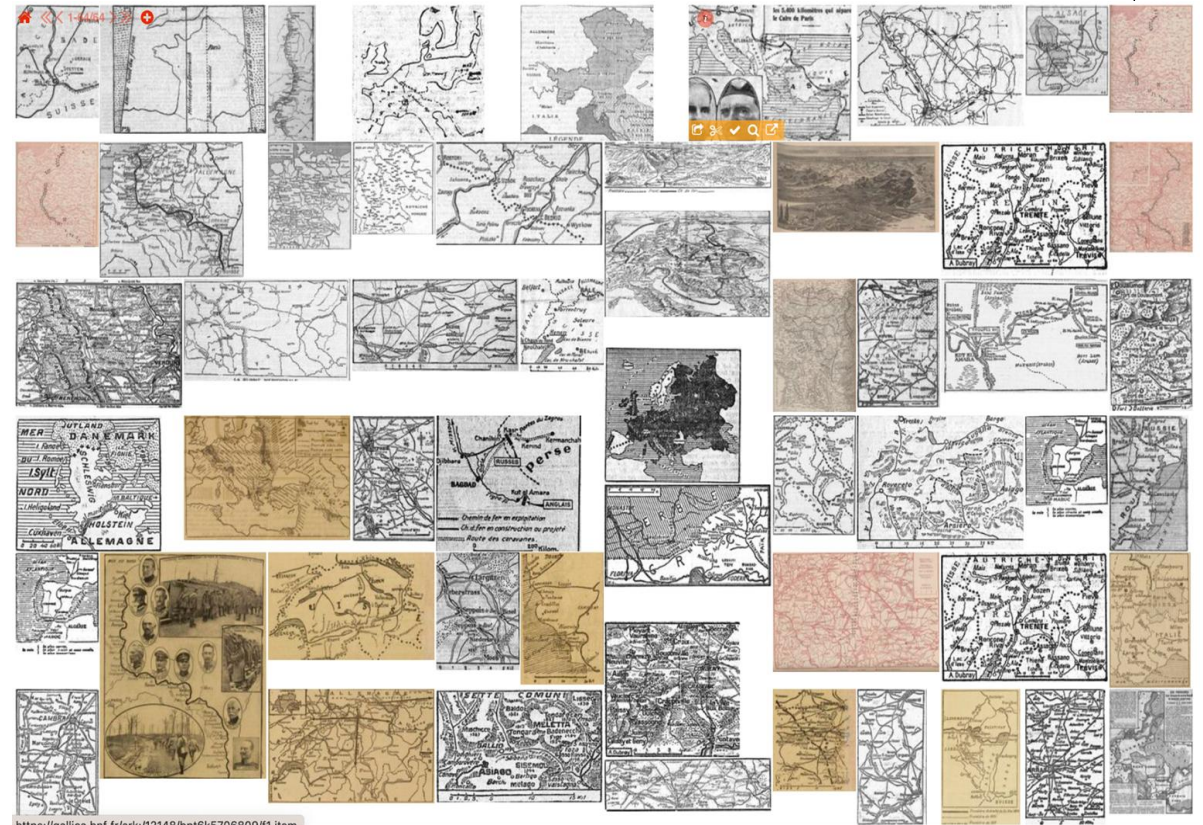
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GALLICA IMAGES

- **DATA: 50-100M of illustrations**
- Information retrieval
- Classification of heritage images
- Visual similarity
- Segmentation and rotation
- Detection of techniques, functions and genres
- Open content: free search and access APIs
- Dissemination: IIF version 3 Gallica APIs



{ BnF



gallicapix.bnf.fr: maps in periodicals (1910-1920)

A series of white, overlapping geometric lines and polygons on a black background, creating a complex, abstract pattern on the left side of the slide.

NATIONAL LIBRARY OF LUXEMBOURG

Chatbot in eLuxemburgensia

Yves Maurer et al.



[+ New chat](#)

Chat History

[Fasse die Debatten run...](#)

29/09/2023 11:45

[Who was the first Prim...](#)

27/09/2023 10:47

[What are the most play...](#)

27/09/2023 10:45



Fasse die Debatten runum das Maulkorbgesetz zusammen



Das Maulkorbgesetz war ein umstrittenes Thema in Luxemburg im Jahr 1937. Es wurde eine Gesetzesvorlage eingebracht, die darauf abzielte, den Kommunismus zu bekämpfen und die politische und soziale Ordnung zu schützen. Die Diskussionen darüber fanden sowohl in der Chambre des Députés als auch in der Öffentlichkeit statt. Die Befürworter des Gesetzes argumentierten, dass es notwendig sei, um die verfassungsmäßige Ordnung zu wahren und die Aktivitäten kommunistischer Gruppen zu unterbinden. Die Gegner hingegen waren der Ansicht, dass das Gesetz gegen die Meinungsfreiheit und die demokratischen Prinzipien verstoße. Sie betonten, dass der Kommunismus keine ernsthafte Bedrohung darstelle und dass das Gesetz unnötig sei. Trotz dieser kontroversen Debatten wurde das Gesetz schließlich von der Mehrheit der Chambre des Députés angenommen. Allerdings fand kurz darauf ein Referendum statt, bei dem das Volk das Gesetz ablehnte. Dieses Referendum war das zweite und bisher letzte Referendum in der Geschichte Luxemburgs. Es zeigt, dass die Bevölkerung das Maulkorbgesetz nicht unterstützte und die Meinungsfreiheit verteidigte. Dieses Ereignis hatte einen großen Einfluss auf die politische Entwicklung des Landes und markierte das Ende der Diskussionen um das Maulkorbgesetz.



My answer is based on these articles:



Union (L')

#1 • 1868-03-22



Union (L')

#2 • 1868-03-29



Avenir (L')

#3 • 1870-02-22

Send a message in French, German, English or Luxembourgish. (Shortcut: ENTER)





CONCLUSION

As AI continues to evolve, GLAM institutions have a unique role to:

- shape the digital transformation, and be
- **ambassadors of change**, fostering a culture of innovation and responsibility.

Cross-sectoral collaboration:

- guiding principle
- collective mindset for the future.

Digital infrastructures support:

- culture & science & education
- efficient workflows, and
- expanded accessibility.

AI4LAM and GÉANT / NRENs collaboration:

- Data infrastructure
- **Knowledge sharing**
- **Building community cooperation**

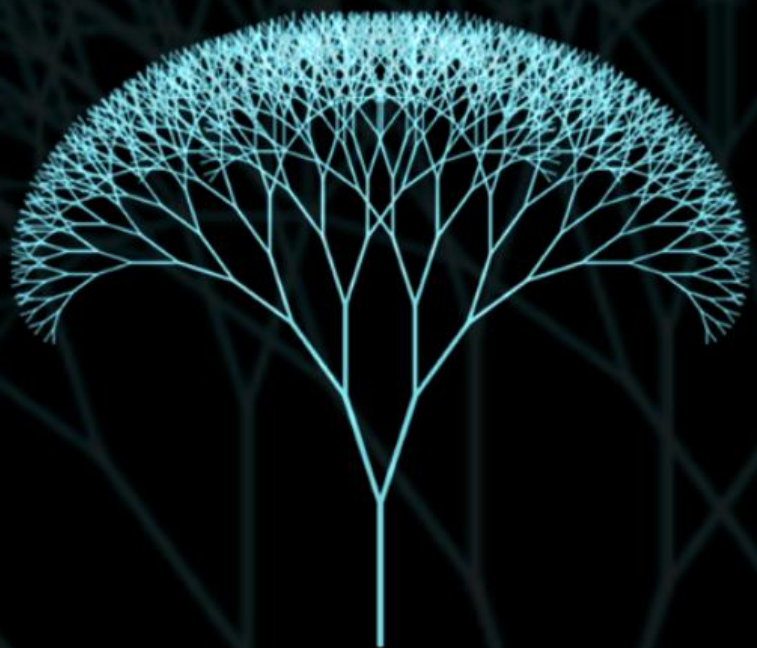
= Innovative future systems

Individually, we are slow and isolated. Together, we can go faster and farther!

- **Dynamic and Participatory Community**
(professional support and openness)
- **Technology driven AI Organization**
(gain solutions)
- **Cross-Sectoral Open Knowledge Hub**
(advance knowledge)
- **Ethical and Trustworthy Advocacy**
(overcome hesitation and opposition)



secretary-general@ai4lam.org



Questions?

AI4LAM

Artificial Intelligence for Libraries, Archives & Museums

Thank you!

Ines Vodopivec

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