Welcome @ BIRDS

Workshop on Building Innovative Research Systems for Digital Libraries, TPDL 2025

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Purpose, goal and objectives

- Connect domain experts working in GLAMs with researchers from computational domain
- Access paths to information in digital libraries
- Identify common challenges faced by digital libraries and explore how computational approaches could help address them
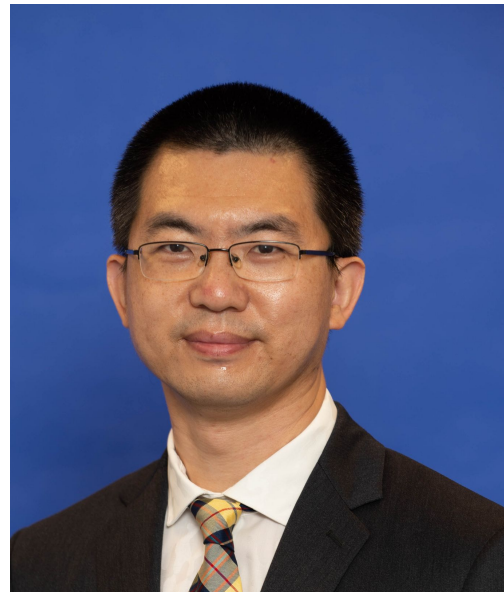
Agenda

9:10 - 9:15	Welcome	14:00-15:30	Panel discussion
9:15 - 10:00	Keynote by Jian Wu	15:30-16:00	Breakout group discussions
10:00-11:00	Scientific speed-dating		
11:00-11:30	*Coffee break*	16:00-16:30	*Coffee break*
11:30-12:30	*General TPDL/ADBIS Keynote*	16:30-17:30	Breakout group discussions, summary, closing
12:30-14:00	*Lunch break*		

Beyond Retrieval: A Vision of Digital Libraries in the Large Language Model Era
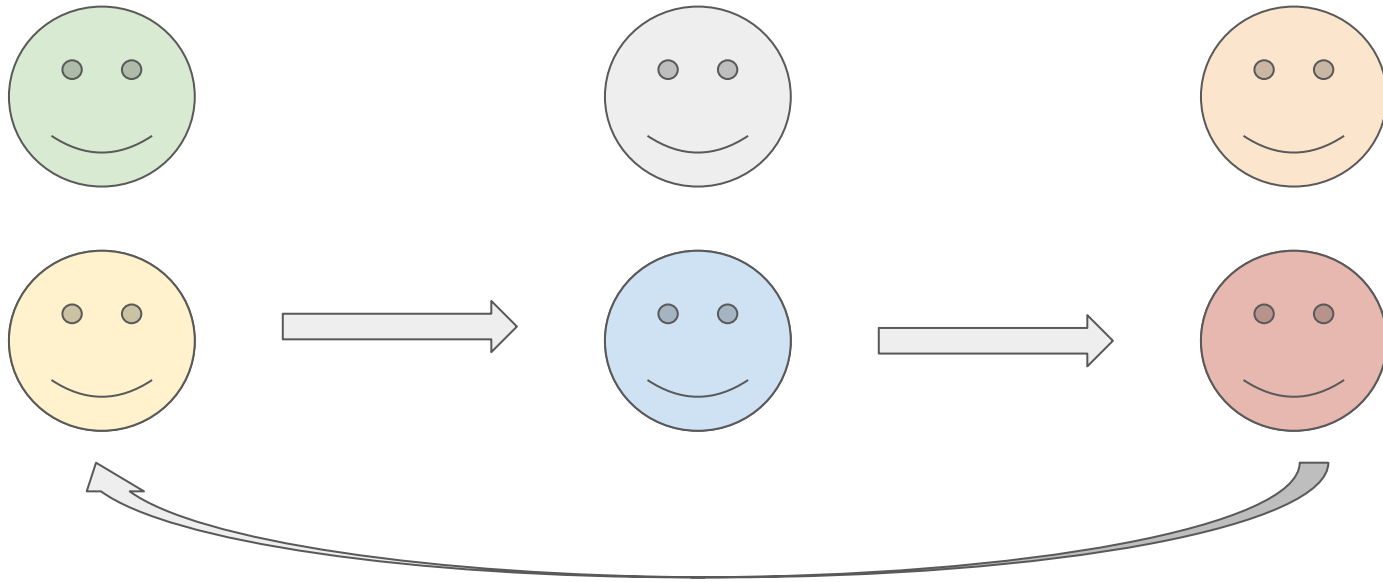
Keynote at BIRDS by Jian Wu

- Associate Professor at Old Dominion University

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Scientific speed-dating

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Panel discussion
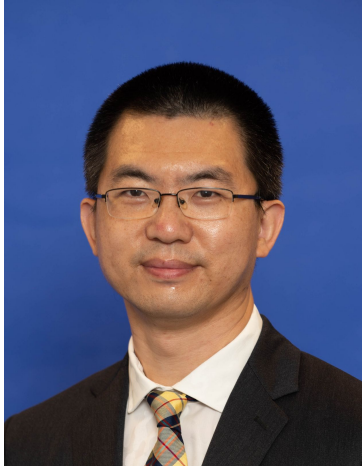
Jian Wu

Sanna
Kumpulainen

Liana Ermakova

Wolf-Tilo Balke

Thomas Risse

Format

- Round of short opening statements
- Debates (3 topics)
- Hypothetical scenario

Jian Wu

- My role in the landscape of digital libraries is both a **prototyper** and an **evaluator**. I build prototypes of new intelligent modules that better serve DL users and evaluate these modules in automated way or via human studies.
- This excites me most about working in/with digital libraries: DLs will not be just search engines but also libraries of data and knowledge hub. DLs will make it easier to obtain information through **human AI interaction**.
- The biggest challenges for the future of digital libraries are (1) **financial interest**. Funding agencies are more interested in national security, defense, and social economy, but are less interested in investing on digital infrastructures to support education and research using AI. (2) **high quality data** for training and evaluation. Crowdsourced data are noisy. Synthesized data are less representative. Expert labels are not scalable.

Sanna Kumpulainen

- My role in the landscape of digital libraries is that I teach digital libraries and do research about them.
- This excites me most about working in/with digital libraries: There are so many viewpoints how to do research of, with, or for the digital libraries. My focus is **human perception** – that affects everything related to digital libraries: the contents, their organization and findability of information items, the presentation of results, interfaces and interaction methods, you name it!
- The biggest challenges for the future of digital libraries are **funding** and **sustainability** for some specific collections. Also, even that **standardization** is a good thing in general, one size does not fit all, necessarily.

Liana Ermakova

- My role in the landscape of digital libraries is PI of SimpleText, member of ISTEX, PI of ENABLE, ischool network, TPDL '25 demo co-chair [...]
- This excites me most about working in/with digital libraries: Preserving and transferring **cultural heritage**, making knowledge and cultural heritage **accessible**, searchable and analysable, **interdisciplinarity**, contributing to **innovation**
- The biggest challenges for the future of digital libraries are access to the **multimedia** content, meta-data and discoverability, **intellectual property**, **AI plagiarism** detection, deepfake, etc., **different biases**, including representation bias, polarization, **fewer people think that it is useful** to access primary sources

Wolf-Tilo Balke

- My role in the landscape of digital libraries is innovation in information provisioning. How do we get the information **to the user** and who is willing to **pay** for it?

- This excites me most about working in/with digital libraries: The **heterogeneity** of content that needs to be dealt with and the **insights** into a vast variety of fields!

- The biggest challenges for the future of digital libraries are the elephants in the room: **LLMs**.
  Do we still need DLs for information discovery in future or will we just ask some LLM..?!

Thomas Risse

- My role in the landscape of ~~digital~~ library digitization is observer, consultant, innovator, proposal writer, project manager, business model developer, … (but not developer)
- This excites me most about working in/with ~~digital~~ library digitization:
  - Learning about new scientific area / collections and develop ideas how to **better support the scientific work** with any kind of content
  - Possibilities given by the broader definition of "libraries" (research data, research software, etc.) and the increasing **openness** of information
- The biggest challenges for the future of ~~digital~~ library digitization are
  - Available **resources** (money, people),
  - Available **time**,
  - **Bureaucracy** (e.g. all the EU acts like GDPR, Resilience Act, AI Act)

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Statement #1

Our community's mission is to build research prototypes, not production-ready digital library systems. The translation of research results into production is not our task.

Statement #2

Our digital libraries' features and strategic orientation should be completely based on our users' requirements.

Statement #3

With the popularity and potence of LLMs we do not need digital libraries any more. Chatbots will replace digital libraries.

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Scenario

The director of our digital library wants to incorporate a chatbot.

What would be your course of action?

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Breakout group discussions

Group 1:
Evaluating digital library systems

Group 2:
Designing user-centered digital library systems

Group 3: ??

Discussion at 17:00