## Report on NKOS Workshop @ DCMI 2026

Joseph Busch, Taxonomy Strategies

On Monday, August 3 an excellent NKOS Workshop was held at DCMI 2026, the international conference on Dublin Core and metadata applications. The Workshop included five presentations on AI-assisted KOS modeling, mapping, indexing and retrieval applications, and a panel discussion with five perspectives on establishing ethical guidelines for use of AI tools in KOS and metadata services. There were 30 participants onsite and 74 online registrations for the Workshop about a third of whom participated in real-time (the rest can access the Zoom webinar recording).

Joseph Busch kicked off the Workshop with a short history of NKOS (Networked Knowledge Organization Systems, Services, and Structures) [1] which has organized Workshops for the past 30 years. He introduced the Workshop co-chairs (Joseph Busch, Taxonomy Strategies; Claudio Gnoli, University of Pavia; Koraljka Golub, Linnaeus University; Douglas Tudhope, University of South Wales; Andreas Vlachidis, University College London; and Marcia Zeng, Kent State University), program committee (Mark Butler, University of California, Berkeley; Vânia Mara Alves Lima, University of São Paulo; Ziyoung Park, Hansung University; Jian Qin, Syracuse University; Armando Stellato, University of Rome; and Marcin Trzmielewski, Université de Montpellier Paul-Valéry), and onsite moderators (Ziyoung Park, Hansung University and Jiajie Zhang, University College London), and shared an outline of the half-day Workshop program and logistics.

One common theme that emerged from the presentations and panel discussion was what Shu-Jiun (Sophy) Chen, Associate Research Fellow at the Institute of History and Philology, Academia Sinica in Taipei, Taiwan labeled “semantic accountability.” [2] What she meant

was that KOS editorial decisions need to be carefully documented whether they are based on traditional sources of warrant or are derived by automated processing. In her context this is specifically related to mapping Chinese translations to the *Art & Architecture Thesaurus*. [3] She proposes a provenance application profile for Generative AI-assisted multilingual thesaurus localization or translation.

Similarly, the panel discussion of five researchers and practitioners including Ying-Hsang Liu, Researcher at Chemnitz University of Technology (Germany); Junzhi Jia, Professor at Renmin University of China; Sophy Chen, a Research Fellow at Academia Sinica (Taiwan); Seungmin Lee, Professor at Chung-Ang University (South Korea); and Charlene Chou, Head of Knowledge Access at New York University Libraries(USA) proposed a framework of human-supervised automation workflows when using AI tools in KOS and metadata services. [4]

Jian Qin, Professor at Syracuse University discussed an exploratory assessment of the "semantic coverage" of the Medical Subject Headings (MeSH) [5] produced by the National Library of Medicine (USA) by comparing author provided keywords and MeSH. It is not clear whether author-provided keywords (and author-selected KOS categories) usefully enrich the metadata associated with content or provide useful feedback for KOS maintenance. But this study demonstrates how enriched metadata could be beneficial when using automated tools to identify gaps in semantic coverage. [6]

Yang Zhao, a Ph.D. student at Syracuse University presented a study that also looked at the value of metadata enrichment to improve, in this case, complex image recognition. [7]

Esmail Babaei Dehkordi, a Ph.D. student at Kharazmi University (Teheran) discussed how the National Library and Archives of Iran was obtaining semantic alignment of four production applications that use heterogeneous metadata schemas—Dublin Core [8], Schema.org [9], RiC-CM [10], and PREMIS [11]—by cross-walking the schemas and modeling the mapping as an OWL ontology.

Finally, Jiajie Zhang, a Research Fellow at University College London presented a project that seeks to automate the work flow to accurately interpret oral history transcripts, for example when there is conflicting information about the same event. [12] Not so long ago accurate transcription was considered a challenging automation target. Now building computer-assisted hermeneutics is frankly a stunning development!

This autumn look out for the announcement of the 2027 NKOS Workshop and consider participating in it.

**References**


[1] Networked Knowledge Organization Systems/Services/Structures – NKOS. 2026.

[2] Chen. 2026. "From Prompt Logs to Traceable Governance: A Provenance Application Profile for GenAI-Assisted Multilingual Thesaurus Localization."

[3] Art & Architecture Thesaurus. 2021.

[4] Liu, Chen, Jia, Lee, and Chou. 2026. "Establishing Ethical Guidelines for Use of AI Tools in KOS and Metadata Services: A Framework of Human-Supervised Automation Workflows."

[5] Medical Subject Headings. 2026.

[6] Qin, Yu, and Liu. 2026. "Capturing Semantic Gaps in MeSH through Human-AI Collaboration."

[7] Zhao. 2026. "Beyond Keywords: Retrieving Blue-and-White Ceramics in Dutch Paintings with Knowledge-Augmented CLIP."

[8] DCMI Metadata Terms. 2020.

[9] Schema.org. 2026.

[10] Records in Contexts – Conceptual Model. 2023.

[11] PREMIS. 2025.

[12] Pazooki and Dehkordi. 2026. "Semantic Mapping of Archival Metadata Standards: Toward a Hybrid Knowledge Organization System for the National Library and Archives of Iran."

[13] Zhang, Vlachidis, and Nyhan. 2026. "Hermeneutic Ontology Engineering: LLM-Assisted Schema Induction for Oral History Knowledge Organisation."