

# **NKOS at DCMI 2024**

## Workshop Introduction

# Agenda

- What is NKOS
- The NKOS Workshop at DCMI 2024

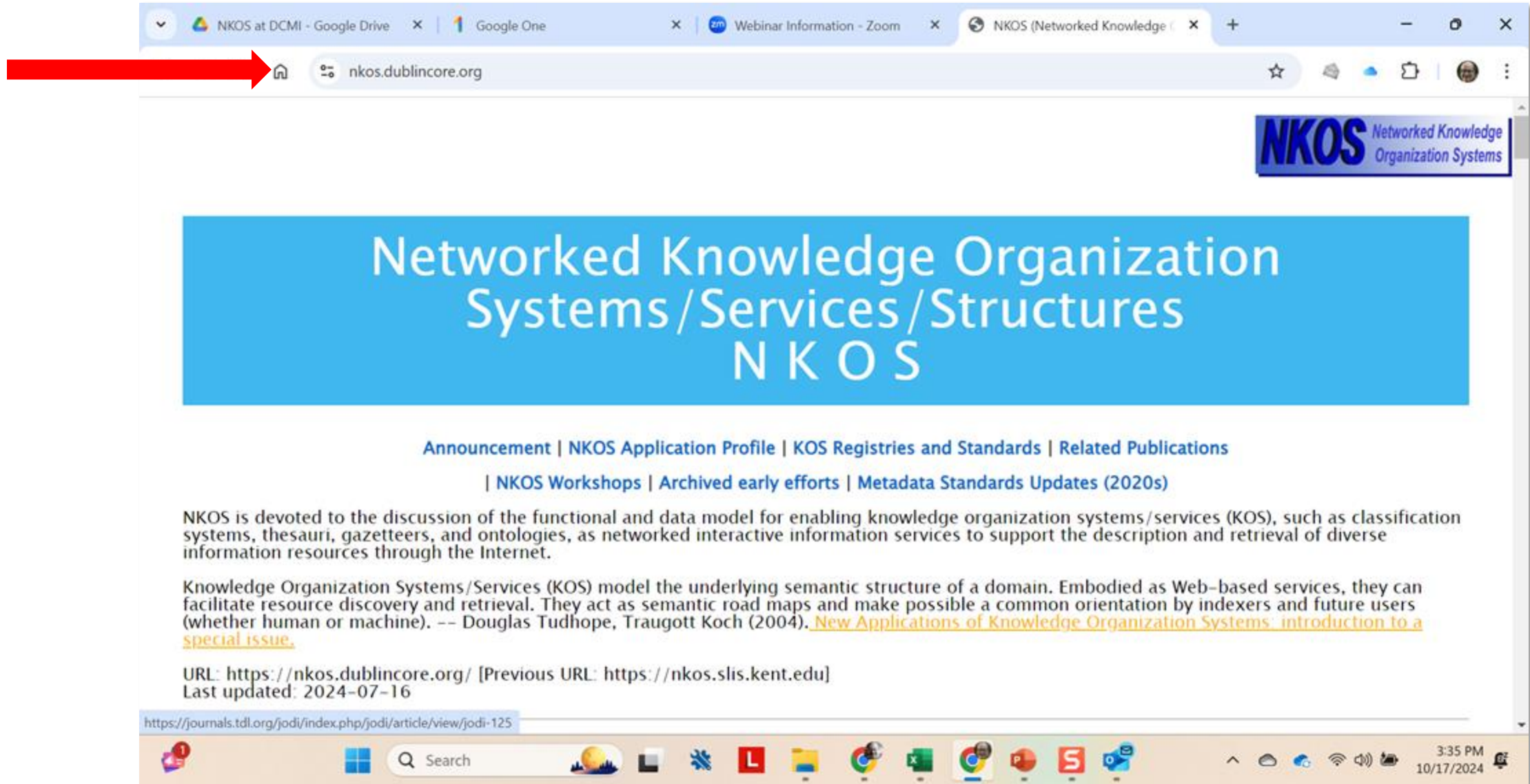
# What is NKOS

- Devoted to discussion of functional and data models for enabling knowledge organization systems/services (KOS)—such as classification systems, thesauri, and ontologies—as networked interactive services to support the description and retrieval of diverse information resources.<sup>[1]</sup>
- “Knowledge Organization Systems/Services (KOS) model the underlying semantic structure of a domain. Embodied as Web-based services, they can facilitate resource discovery and retrieval. They act as semantic road maps and make possible a common orientation by indexers and future users (whether human or machine).”<sup>[2]</sup>

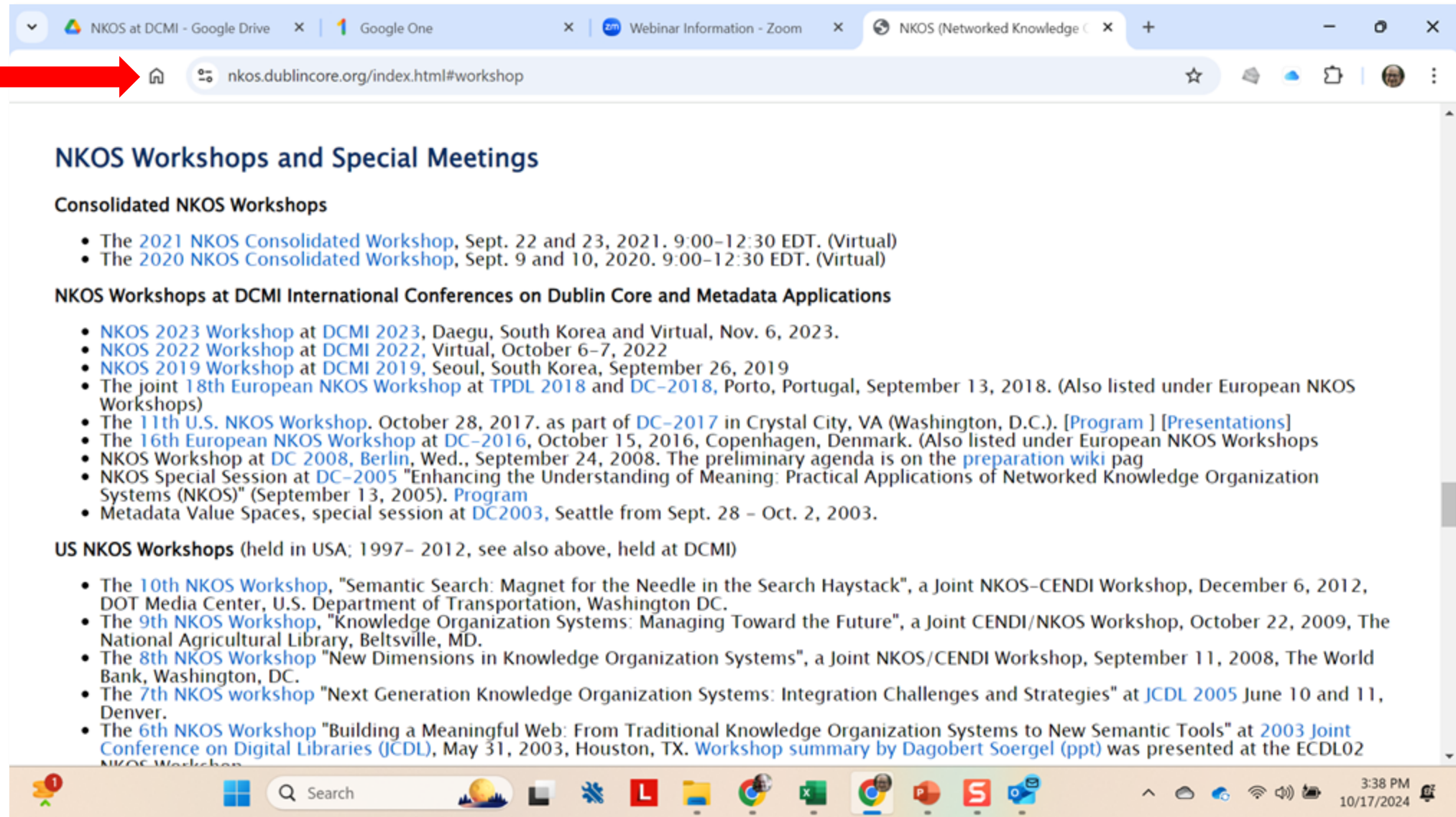
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[1] <https://nkos.dublincore.org/>

[2] D. Tudhope and T. Koch. “New Applications of Knowledge Organization Systems: Introduction to a Special Issue.” 4:4 *Journal of Digital Information* (2004) <https://journals.tdl.org/jodi/index.php/jodi/article/view/109/108>



# NKOS workshop website



The screenshot shows a web browser window with several tabs open. The active tab is titled 'NKOS (Networked Knowledge C...'. The address bar shows the URL 'nkos.dublincore.org/index.html#workshop'. The page content is as follows:

## NKOS Workshops and Special Meetings

### Consolidated NKOS Workshops

- The [2021 NKOS Consolidated Workshop](#), Sept. 22 and 23, 2021. 9:00–12:30 EDT. (Virtual)
- The [2020 NKOS Consolidated Workshop](#), Sept. 9 and 10, 2020. 9:00–12:30 EDT. (Virtual)

### NKOS Workshops at DCMi International Conferences on Dublin Core and Metadata Applications

- [NKOS 2023 Workshop at DCMi 2023](#), Daegu, South Korea and Virtual, Nov. 6, 2023.
- [NKOS 2022 Workshop at DCMi 2022](#), Virtual, October 6–7, 2022
- [NKOS 2019 Workshop at DCMi 2019](#), Seoul, South Korea, September 26, 2019
- The joint [18th European NKOS Workshop at TPDL 2018 and DC-2018](#), Porto, Portugal, September 13, 2018. (Also listed under European NKOS Workshops)
- The [11th U.S. NKOS Workshop](#), October 28, 2017, as part of [DC-2017](#) in Crystal City, VA (Washington, D.C.). [[Program](#)] [[Presentations](#)]
- The [16th European NKOS Workshop at DC-2016](#), October 15, 2016, Copenhagen, Denmark. (Also listed under European NKOS Workshops)
- [NKOS Workshop at DC 2008, Berlin](#), Wed., September 24, 2008. The preliminary agenda is on the [preparation wiki](#) page
- [NKOS Special Session at DC-2005](#) "Enhancing the Understanding of Meaning: Practical Applications of Networked Knowledge Organization Systems (NKOS)" (September 13, 2005). [Program](#)
- [Metadata Value Spaces, special session at DC2003](#), Seattle from Sept. 28 – Oct. 2, 2003.

### US NKOS Workshops (held in USA; 1997– 2012, see also above, held at DCMi)

- The [10th NKOS Workshop](#), "Semantic Search: Magnet for the Needle in the Search Haystack", a Joint NKOS–CENDI Workshop, December 6, 2012, DOT Media Center, U.S. Department of Transportation, Washington DC.
- The [9th NKOS Workshop](#), "Knowledge Organization Systems: Managing Toward the Future", a Joint CENDI/NKOS Workshop, October 22, 2009, The National Agricultural Library, Beltsville, MD.
- The [8th NKOS Workshop](#) "New Dimensions in Knowledge Organization Systems", a Joint NKOS/CENDI Workshop, September 11, 2008, The World Bank, Washington, DC.
- The [7th NKOS workshop](#) "Next Generation Knowledge Organization Systems: Integration Challenges and Strategies" at [JCDL 2005](#) June 10 and 11, Denver.
- The [6th NKOS Workshop](#) "Building a Meaningful Web: From Traditional Knowledge Organization Systems to New Semantic Tools" at [2003 Joint Conference on Digital Libraries \(JCDL\)](#), May 31, 2003, Houston, TX. [Workshop summary by Dagobert Soergel \(ppt\)](#) was presented at the ECDL02 NKOS Workshop.

# NKOS Workshops <https://nkos.dublincore.org/index.html#workshop>

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>U.S.</b>	Phila- delphia	Pitts- burgh	Berke- ley	San Antonio	Roa- noke	Portland OR	Houston		Denver			Wash- ington	Belts- ville MD
<b>Europe</b>				Lisbon		Lund	Trond- heim	Bath	Vienna	Alicante	Buda- pest	Aarhus	Corfu
<b>DCMI</b>							Seattle		Madrid			Berlin	
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>U.S.</b>			Wash- ington					Crystal City, VA			Joint Virtual	Joint Virtual	
<b>Europe</b>	Glas- gow	Berlin	Paphos	Valletta	London	Poznań	Copen- hagen	Thessa- loniki	Porto	Oslo	Joint Virtual	Joint Virtual	Virtual
<b>DCMI</b>		Berlin					Copen- hagen	Crystal City, VA	Porto	Seoul			Virtual
<b>ICADL</b>						Seoul	Tsukuba		Hamilton				
	2023	2024 Part 1	2024 Part 2										
<b>Europe</b>	Daegu	Wuhan	Toronto										
<b>DCMI</b>	Daegu	Wuhan	Toronto										



# 2024 Workshop Committee

## Co-chairs



- Joseph Busch, Taxonomy Strategies
- Douglas Tudhope, University of South Wales
- Marcia Zeng, Kent State University

## Program Committee

- Lu An, Wuhan University
- Mark Butler, Voise & UC Berkeley
- Claudio Gnoli, University of Pavia
- Koraljka Golub, Linnaeus University
- Margie Hllava, Access Innovations
- Vânia Mara Alves Lima, University of São Paulo
- Philipp Mayr, GESIS–Leibniz-Institute for the Social Sciences
- 크리에이티브인문학부)박지영 Ziyong Park, Hansung University
- Jian Qin, Syracuse University
- Armando Stellato, University of Rome

# 2024 Workshop Program - KOS in AI & AI in KOS Part 1 & 2

<https://nkos.dublincore.org/2024NKOSworkshops/NKOS2024.html>

- NKOS workshops explore the potential of Knowledge Organization Systems (KOS), such as vocabularies, classifications, ontologies, etc.
- The agenda for Part 1 included 2 invited demos, 2 reviewed demos by researchers from nine countries, and an ISO 29564 focus group.
- The agenda for Part 2 includes 4 sessions:
  - 3 - LLM Demonstrations
  - 2 - Knowledge Graph Demonstrations
  - 3 - Machine Learning Demonstrations
  - 2 - AI and KOS Demonstrations



# KOS in AI & AI in KOS Part 2 – Session 1: LLM Demos

<https://nkos.dublincore.org/2024NKOSworkshops/NKOS-DCMI-2024-program.html>

#	Presenter & Topic	Topic	Time (EDT Toronto)
	Busch	Introduction	10:00-10:15
1.1	Chen. Leveraging Generative AI for Multilingual Thesaurus Development: Insights from the Confucius Ceremony Cultural Vocabulary	LLM Demonstrations	10:15-10:45
1.2	Xia. The Ontology enhanced multimodal large language models for the Knowledge Organization and Representation of multi-modal cultural memory resources	LLM Demonstrations	10:45-11:15
1.3	Leal, Ahola & Hyvönen. Using LLMs for Enriching Metadata with Links to KOS and Knowledge Graphs: Case Finnish Named Entity Linking	LLM Demonstrations	11:15-11:45
		<b>BREAK</b>	<b>11:45-12:00</b>

# KOS in AI & AI in KOS Part 2 – Session 2: Knowledge Graph Demos

<https://nkos.dublincore.org/2024NKOSworkshops/NKOS-DCMI-2024-program.html>

#	Presenter & Topic	Session	Time (EDT Toronto)
2.1	Onyancha, Al-Awah, Gordon & Elzubair. The African Knowledge Hub: Role of the SDG taxonomy (KOS) in harnessing, exploring, and navigating knowledge of the United Nations System - Africa	Knowledge Graph Demonstrations	12:00-12:30
2.2	Hu, Li & Yang. Patent citation link prediction based on graph neural network	Knowledge Graph Demonstrations	12:30-1:00
		<b>LUNCH</b>	<b>1:00-2:00</b>

# KOS in AI & AI in KOS Part 2 – Session 3: ML Demos

<https://nkos.dublincore.org/2024NKOSworkshops/NKOS-DCMI-2024-program.html>

#	Presenter & Topic	Topic	Time (EDT Toronto)
3.1	Yoo & Saha. Exploring Patient Perspectives on Anticipating and Mitigating Potential Harms of LLMs in Depression Self-Management	ML Demonstrations	2:00-2:30
3.2	Liu & Qin. Testing use of an LLM algorithm on Gene Ontology (GO) dataset	ML Demonstrations	2:30-3:00
3.3	Hlava. Using KOS AI to expedite the conference experience	ML Demonstrations	3:00-3:30
		<b>BREAK</b>	<b>3:30-3:45</b>

# KOS in AI & AI in KOS Part 2 – Session 2: AI and KOS Demos

<https://nkos.dublincore.org/2024NKOSworkshops/NKOS-DCMI-2024-program.html>

#	Presenter & Topic	Session	Time (EDT Toronto)
4.1	Dobreski & Hastings. Evaluating AI Assignment of Library of Congress Subject Headings (LCSH)	AI and KOS Demonstrations	3:45-4:15
4.2	Watkins. Mapping the Global AI Landscape using AI and KOS	AI and KOS Demonstrations	4:14-4:45
	Busch	Announcements & Closing	4:45-5:00

# Workshop structure

- All submissions were refereed by the Program Committee, who provided comments that were communicated to submitters.
- Each presentation has a 30-minute slot – 20 minutes for the presentation and 10 for questions.
- With the permission of submitters, their written submissions and slides will be made available on the NKOS website and NKOS Europe github (<https://nkos-eu.github.io/>) after the workshop.
- NKOS will be issuing a Call for Papers for a Special Issue of *Knowledge Organization (KO)* on “*KOS in AI and AI in KOS.*”
  - **Important dates:**
    - Opening date for paper submission: 1st November 2024
    - Closing date for paper submission: 31st January 2025
    - Notification of conditional acceptance: 31st March 2025
    - Closing date for revised paper submission: 30th April 2025

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