

TRB Committee on Information and Knowledge Management (AJE45)

Summer 2024 Committee Meeting

Notes

1:30 – 3:00 PM (EDT)

Wednesday, July 31, 2024

Participants: Rosalyn Alleman (NTL), Matt Bagwell (Oregon DOT), Michael Borden (SAIC), Mike Bousliman (Infotech, Inc.), Sandy Brady (LATRC), Shedrick Bridgeforth (WisDOT), John Cherney (WisDOT), Barbara Chomicka (Turner & Townsend/NYMTA), Brianna Cochran (TXDOT), Glenn Cole (Transportation Association of Canada), Craig Crick (NVDOT), Bronwyn Dorhofer (Sound Transit), Lorri Economy (UDOT), Jamie Forrest (WisDOT), Joseph Glowitz (PS-E, LLC), Frances Harrison (Spy Pond Partners), Jennifer Herron (MIDOT), Amanda Holland (Holland Enterprise Resource Solutions), David Jared (TRB), Shubhangi Kelekar (Caltrans), Kendra Levine (UC Berkeley), Bill McLeod (TRB), Carin Michel (USDOT/FHWA), Michael Nugent (TXDOT), Erin O'Meara (Sound Transit), Eden Orelove (NTL), Emily Parkany (VT AOT), Kiran Patel (NJDOT), Geoffrey Potter (TXDOT), Rodney Saunders, Jr. (WisDOT), Chris Senesi (HDR), Cynthia Smith (MSDOT), Aliselina Strong (MTDOT), Shushanna Thompson (TRB), Marilee Tuite (MN CTS), Garrett Wheat (LADOTD), Rahel Yehdego (Sound Transit), Hong Yu (TTI)

1:30 – 1:35	Welcome and Agenda Review	Thanks to everyone who participates and supports the work of this committee! Please put your name and org affiliation in the chat
1:35 – 1:45	TRB 2025 Annual Meeting - Planned Committee Activities	• Please reach out to the leads ASAP for these events if you'd like to participate in planning or have an idea for a speaker/topic to include • 2 Podium Sessions: - o Lessons Learned in Transportation Asset Management (Chris Senesi leading) - o Building a Common Transportation Language (Kendra Levine leading) • Workshop: - o The Convergence of Data Governance, Knowledge Management and Information Management (Frances Harrison leading) – scheduled for Sunday, Jan 5 9 AM - o AJE35 Research Innovation Implementation Management can/will co-sponsor this workshop. (Thanks Emily P!) • Poster Session – send Frances and Kendra an email if you are interested in submitting a poster. • Committee Meeting (Frances and Kendra developing the agenda) • Dates for sessions and our meeting will be available in October
1:45 – 2:05	Other Updates	• Bill McLeod – TRB Information Services - o TRIS Databases: TRID https://trid.trb.org, Research in Progress (RIP) https://rip.trb.org, PubsIndex http://pubsindex.trb.org and Transportation Research Thesaurus https://trt.trb.org - o TRID Hot Topic Searches (newly added items) https://trid.trb.org/Topics - o TRB Library: Snap Searches: http://www.trb.org/InformationServices/Snap.aspx • Rosalyn Alleman – NTL - o AI Community of Practice

		- o Libguide updates: https://transportation.libguides.com/ - o Transportation Librarians Roundtable – next session 8/8 - o NTL’s Archivist, Eden Orelve provided a link to the new NTL Archives website (under development): https://www.bts.gov/ntl/national-transportation-library-ntl-archives. Contact her at eden.orelove@dot.gov with questions • Lorri Economy – AASHTO Administration Conference (Salt Lake City 10/7-10, 2024) – there will be several KM-specific sessions so we hope to see you all there! Register at: https://web.cvent.com/event/b953e8ae-dca9-4800-9d32-9e60cbd97792/websitePage:33bb36ed-69a1-42a4-85e6-6b25fb660a71 • Erin O’Meara – Webinars – First webinar is scheduled for October 17th Knowledge Capture – registration information will be out soon.
1:45 – 2:15	Research Updates	• NCHRP 23-14 – Research Roadmap – this project to create a 5 year research roadmap for KM in transportation is wrapping up this week. Check out the prototype research management system at https://km-rrm-e0ecfe1ef9f3.herokuapp.com/ and send any feedback to Frances (fharrison@spypondpartners.com) - o Hong suggests considering some of the tags used for categorizing KM needs/projects for inclusion in the TRT’s KM topic area
2:15– 3:00	IKM Triennial Strategic Plan	• Interactive session to get input for our committee’s direction and priority activities over the next 3 years – we discussed 3 topics at the intersection of knowledge and information management: - o Controlled vocabularies and ontologies - o Information retrieval - o Information curation and preservation • See below for the results of this brainstorming in the PDF below.

Topic 1: Controlled Vocabularies and Ontologies

What activities should our committee plan to advance use of Glossaries, Taxonomies, Thesauri and Ontologies in Transportation?

What shared vocabulary resources are needed - beyond the TRT?
Can domain-specific ontologies improve reliability of LLMs? If so, how can these be advanced?

Controlled Vocabulary:
An organized arrangement of words and phrases used to index content and/or to retrieve content through browsing or searching. It typically includes preferred and variant terms and has a defined scope or describes a specific domain. Controlled vocabularies include Taxonomies, Thesauri, Controlled Lists, etc

Authority resource for acronyms

Analysis of a corpus to identify areas of inconsistency/suggest consistent ways for governments/agencies to communicate and function (Canada procurement example & UK)

Business glossaries - how do different organizations talk about procurement (for example?)

Ontology
A machine-interpretable definitions of basic concepts and relations among them within a subject domain

Topic 2: Information Retrieval

What activities should our committee plan to make it easier to find information needed to do our jobs - within our organizations and across organizations?

Information Retrieval:
Finding relevant documents and other information resources to satisfy an information need or desire

What is working well now - are there best practices to highlight and share?

What is needed to help agencies improve?

How can we maximize the value and ensure appropriate use of AI tools (LLMs)?

Overcoming IS limitations for information sharing

UDOT Employee resource site

UDOT piloting AI-based search

Challenge: organization-wide strategy, taxonomies

Challenge: keeping resources updated, data currency, version control

Create best practices for different organizations - size and culture

Challenge: knowing what is available and how to find it

Topic 3: Information Curation and Retention

What activities should our committee plan to improve transportation agency practices for information curation and retention?

Information Curation:
the ongoing processing and maintenance of information throughout its lifecycle to ensure long term accessibility, sharing, and preservation. Includes: info organization, cleaning, describing (metadata), enhancement, storage and archiving

Who curates information in our agencies?

What improvements are needed?

How can our committee help?

Link Rot: when major organizations have a URL change, many documents don't survive. Or, same link is used for an updated version of a doc but old one is no longer available. (Common need is to see what standards/manuals were in place at the time of a given project)

How can we help our employers be better information stewards (managing changes better, having persistent links)

In transition from hard copy to digital copies, there have been many digital-only documents that have been lost, not archived. (old link issue)