

## TRB Committee on Information and Knowledge Management (AJE45)

### Agenda

Thursday, January 7<sup>th</sup>, 2020

2:00 PM- 3:30 PM\*

#### 2:00-2:15 PM Welcome and Agenda Review (Frances Harrison)

- Welcome
- Review Sessions of Interest
- Committee Updates (see materials provided with this agenda)
- Review of Today's Agenda

#### 2:15-2:30 PM IKM Products and Activities of Interest (Kendra Levine)

[Jam Board Questions](#) – Discussion:

- What's new with information & knowledge management in your organization?
- What IKM Committee products/activities would be most helpful for advancing information and knowledge management in your organization?

Discuss themes and brainstorm ideas for committee activities

#### 2:30 – 3:30 PM IKM Strategic Planning Session (Alex Linthicum)

Review Draft Strategic Plan (10 min)

- Areas of Committee Interest
- Committee Goals

Breakout Groups: Discuss Strategies, and Actions (30 min)

Report out (15 min)

Wrap / Solicit Volunteers (5 min)

#### 3:30 PM - Adjourn

##### ***\*How to Enter the Committee Meetings:***

You must register for the TRB Annual Meeting, in order to participate in any committee meetings. Note, if you wish to attend only committee meetings and exhibits, and do not need access to sessions, workshops, or networking events, you have the option to register for "Exhibits and Committee Meetings Only" at no charge. In the online program, locate the meeting in which you are participating, and click on "More Details" to see the full description. If you are registered for the meeting, and have logged into the online program, the Zoom instructions will be visible, beginning 48 hours prior to the meeting. All committee meetings will be held via the Zoom platform. Please access the link through the online program and remember that you must be registered for the TRB Annual Meeting in order to attend.

## Sign up as a friend of the TRB Information and Knowledge Management Committee

If you'd like to get on the committee's mailing list and be notified of meetings, webinars and other events, be sure you are on our friends list. To become a friend:

1. Make sure you have a myTRB account and that your email is up to date.

To set up a myTRB account, Go to [www.mytrb.org](http://www.mytrb.org), and select: **Manage Your MyTRB Profile**. Then and create an account using the **Click Here** link at the bottom of the screen.

To update your myTRB email, go to: <https://www.mytrb.org/Profile>

2. Sign up as a committee friend at:

<https://www.mytrb.org/Committees/SelfNominationAsFriend> - select AJE45-Standing Committee on Information and Knowledge Management

# TRB Committee on Information and Knowledge Management – 2021 Updates & Resource Materials

## 1. Committee Status

- Our committee was officially approved by the TRB Technical Activities Council on June 30, 2020
- We are situated within the Executive Issues Section of the Policy and Organization Group
- Our official scope statement is:
  - *The committee is concerned with advancing and disseminating practices that improve knowledge and information creation, access, sharing, preservation and retention within and among transportation organizations. The committee identifies critical research needs in these areas, promotes understanding of these topics throughout the transportation community, and fosters the use of library and information science and knowledge management practices through education, training, collaboration, outreach and research.*
- We do not (yet) have any subcommittees.
- We currently have 26 [members](#) and 53 [friends](#).

## 2. Committee Meetings

- We are planning quarterly committee meetings in 2021 – all committee members and friends are invited.
- Our next meeting is Wednesday, April 7<sup>th</sup> from 12-1:30 PM Eastern
- If you have suggested agenda items, please email them to the committee co-chairs.

## 3. Committee Contacts

- Co-Chair – Frances Harrison (fharrison <at> spypondpartners.com)
- Co-Chair – Kendra Levine (kklevine <at> berkeley.edu)
- Vice Chair – Alex Linthicum (Alex.Linthicum <at> dot.gov)
- Co-Communications Coordinator – Jessica VanDenBogaert (jessica.vandenbogaert <at> dot.state.fl.us)
- Co-Communications Coordinator – Bobbi deMontigny (bodemontigny <at> mt.gov)
- Co-Research Coordinator – Leni Oman (OmanL <at> wsdot.wa.gov)
- Co-Research Coordinator – Enid White (enid.white1 <at> wyo.gov)

## 4. Communications

- Our website is TRBIKM.ORG
- We will be evaluating our social media strategy going forward (stay tuned)
- Please contact one of our communications coordinators with suggestions for new content and offers of assistance.

## 5. Committee Volunteer Opportunities

Our committee depends on strong engagement from members and friends to achieve our goals. Please contact one of the co-chairs if interested in helping:

- Completing our strategic plan and action plan
- Organizing webinars
- Helping with paper reviews, session planning and document review

- Drafting research needs statements
- Supporting our website redesign
- Coordinating content curation for the committee website and the Knowledge Management LibGuide

## 5. Research Update: AASHTO/TRB Joint Subcommittee on Knowledge and Information Management Research

The AASHTO/TRB Joint Subcommittee on Knowledge and Information Management Research meets monthly to discuss and develop problem statements on topics of interest to our community. We are also beginning to look at how we can help support awareness and use of relevant research products. The following describes research development activities and status, and provides links to completed research projects.

### A. Research Development

#### Recent funding requests

- KM Leadership Culture & Strategy – Received funding through NCHRP 20-24 at the recent AASHTO Annual Meeting
- KM Case Studies – submitted to NCHRP 20-44 and declined
- AASHTO survey result curation and access – submitted to NCHRP 20-123 and awaiting decision

#### Other items in discussion:

- Knowledge translation

#### Projects in startup

- [NCHRP 23-14](#) Research Roadmap for Knowledge Management - \$300,000
- [NCHRP 23-17](#) Assessing and Measuring the Business Value of Knowledge Management - \$350,000

*Submitted by other organizations but of interest to the information and knowledge management communities*

- [NCHRP 23-12](#) Artificial Intelligence Opportunities for State and Local DOTs – A Research Roadmap
- [NCHRP 23-16](#) Implementing and leveraging Artificial Intelligence and Machine Learning at Departments of Transportation - \$250,000
- [NCHRP 25-64](#) Resources for State DOTs to Consider Greenhouse Gas Emissions and Climate Change in NEPA Documents \$375,000
- [NCHRP 07-31](#) State DOT usage of bicycle and pedestrian data: practices, sources, needs, and gaps \$800,000
- [NCHRP 17-96](#) Traffic Safety Culture Research Roadmap \$375,000
- [NCHRP 23-13](#) COVID-19 Research \$1,000,000
- [NCHRP 20-102 \(20\)](#) Workforce Capability Strategies for State and Local Agencies
- CONTINGENCY PROJECT: G-05 Leveraging Big Data and Artificial Intelligence to Streamline Safety Data Analyses \$650,000

#### Projects underway

- [NCHRP 23-02](#) Guidelines on Collaboration and Information Security for State DOTs
- [NCHRP 20-24 \(131\)](#) Mapping the Common Interests of AASHTO Committees
- [NCHRP 20-24 \(132\)](#) Understanding Knowledge Management in Context with Other Organizational Practices

*Developed by other organizations but of interest to the information and knowledge management communities*

Using Knowledge Graph technology to improve online search capabilities – a TRB NCHRP pilot project, \$200,000

- [NCHRP 20-123 \(9\)](#) Pathway to Innovation
- [NCHRP 2-44\(09\)](#) Quantitative and Qualitative Methods for Capturing the Impacts and Value of NCHRP Research
- [TPF-5\(442\)](#) Transportation Research and Connectivity

## **B. Research Products**

**KM LibGuide:** <https://transportation.libguides.com/KM>

### Completed Research

- [Best Practices in Guidance for Workforce Transition and Succession Planning \(includes WisDOT 'Guide For Knowledge 'Management\)](#)
- [Advances in Transportation Agency Knowledge Management. NCHRP Project 20-68A, Scan 12-04 \(Domestic scan\)](#)
- [A Guide to Agency-Wide Knowledge Management for State DOTs. NCHRP Report 813](#)
- [Implementing Transportation Knowledge Networks. NCHRP Report 643](#)
- [Improving Findability and Relevance of Transportation Information. NCHRP Report 846](#)
- [Keeping What You Paid For - Retaining Essential Consultant-Developed Knowledge within State DOTs. NCHRP Report 867](#)
- [Knowledge Management Resource to Support Strategic Workforce Development for Transit Agencies. TCRP Report 194](#)
- [Preserving and Using Institutional Memory Through Knowledge Management. NCHRP Synthesis 365](#)
- [Transportation Knowledge Networks, A Management Strategy for the 21st Century. TRB Special Report 284](#)
- [Ward, M., 2007. Preserving and Using Institutional Memory Through Knowledge Management Practices \(No. Project 20-5 \(Topic 37-02\)\). NCHRP Synthesis of Highway Practice Issue Number: 365](#)
- [Chang-Albitres, C.M. and Krugler, P.E., 2005. A Summary of Knowledge Management Information Gathered from Literature, Web Sites, and State Departments of Transportation \(No. 0-4505-P1\). Texas Transportation Institute.](#)
- [Data Management and Governance Practices. NCHRP Synthesis 508](#)
- [Guidance for Development and Management of Sustainable Information Portals, NCHRP Report 865.](#)
- [Closing the Knowledge Gap for Transit Vehicle Maintenance Employees--A Systems Approach. TCRP Report 29](#)
- [A Guide to Ensure Access to the Results of Federally Funded Transportation Research, NCHRP Report 936.](#)
- [The Transportation Research Thesaurus: Capabilities and Enhancements. NCHRP Report 874](#)
- [Improving Management of Transportation Information. NCHRP Report 754.](#)
- [TCRP Report 194: Knowledge Management Resource to Support Strategic Workforce Development for Transit Agencies.](#)

- [NCHRP 20-24\(95\)](#) Ensuring Essential Capability for the Future Transportation Agency **(portal)**
- [NCHRP 20-44\(11\)](#) Advancing practices for data governance, information management, and managing the impact of digitization on DOT workforces

## Information and Knowledge Management at the 2021 TRB Annual Meeting

| Information and Knowledge Management Committee-Sponsored Events |   |   |
|---|---|---|
| Thursday<br>1/7<br>2:00 PM-<br>3:30 PM                          | <a href="#"><u>AJE45-Information and Knowledge Management Committee Meeting</u></a>   | AJE45   |
| Thursday,<br>1/21<br>2:00 PM-<br>5:00 PM                        | <b>Workshop 1467</b><br><a href="#"><u>Open Science in Transportation: Challenges and Opportunities in a COVID-19 Era</u></a>                               | A0020C AED10<br>AED20 AED70<br>AJE35 AJE45<br>AJE70 |
| Wednesday<br>1/27<br>2:30 PM-<br>4:00 PM                        | <b>Poster Session 1310</b><br><a href="#"><u>Current Topics in Information and Knowledge Management</u></a>   | AJE45   |
| Thursday<br>1/28<br>1:00 PM-<br>2:30 PM                         | <b>Lectern Session 1380</b><br><a href="#"><u>Library and Knowledge Management Practices That Help Employees Find What They Need, Wherever they Are</u></a> | AJE45   |

| Other Events of Potential Interest       |  |           |
|--|--|-----------|
| Wednesday<br>1/6<br>10:00 AM-<br>1:00 PM | <a href="#"><u>Transportation History Subcommittee</u></a>                                   | AME00(01) |
| Wednesday<br>1/6<br>10:00 AM-<br>1:00 PM | <a href="#"><u>Statewide/National Data and Information Systems Committee</u></a>             | AED10     |
| Wednesday<br>1/6<br>2:00 PM-<br>5:00 PM  | <a href="#"><u>Urban Data and Information Systems Committee</u></a>                          | AED20     |
| Thursday<br>1/7<br>10:00 AM-<br>1:00 PM  | <a href="#"><u>Information Systems and Technology Committee</u></a>                          | ADE30     |
| Friday<br>1/8<br>10:00 AM-<br>1:00 PM    | <a href="#"><u>Artificial Intelligence and Advanced Computing Applications Committee</u></a> | AED50     |

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|--|---|------------------------|
| Friday<br>1/8<br>2:00 PM-<br>5:00 PM     | <a href="#"><u>Research Innovation Implementation Management Committee</u></a>  | AJE35                  |
| Monday<br>1/11<br>10:00 AM-<br>1:00 PM   | <a href="#"><u>Performance Management Committee</u></a>   | AJE20                  |
| Monday<br>1/11<br>2:00 PM-<br>5:00 PM    | <a href="#"><u>Strategic Management Committee</u></a>   | AJE10                  |
| Tuesday<br>1/12<br>2:00 PM-<br>5:00 PM   | <a href="#"><u>Workforce Development and Organizational Excellence Committee</u></a>  | AJE15                  |
| Wednesday<br>1/12<br>2:00 PM-<br>5:00 PM | <a href="#"><u>Data for Decision Making Committee</u></a>   | AJE70                  |
| Tuesday<br>1/12<br>2:00 PM-<br>5:00 PM   | <a href="#"><u>Visualization in Transportation Committee</u></a>  | AED80                  |
| Thursday<br>1/21<br>2:00 PM-<br>5:00 PM  | <b>Workshop 1016</b><br><a href="#"><u>Building a Purposeful Structure for Moving Research to Practice</u></a>                                    | ACS10, AED35           |
| Thursday<br>1/21<br>2:00 PM-<br>5:00 PM  | <b>Workshop 1019</b><br><a href="#"><u>Getting to Organizational Performance Evolution: Advancing Organizational Excellence</u></a>               | AJE15                  |
| Thursday<br>1/21<br>2:00 PM-<br>5:00 PM  | <b>Workshop 1017</b><br><a href="#"><u>Strategic Planning for Critical and Emerging Issues in Technology and Data</u></a>                         | AED10,<br>AED30, AED40 |
| Friday<br>1/22<br>10:00 AM-<br>1:00 PM   | <b>Workshop 1032</b><br><a href="#"><u>Next Generation Project Delivery Information Systems: Data Integration and Open Knowledge Networks</u></a> | AKC10 AED30            |

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|---|---|---|
| Friday<br>1/22<br>10:00 AM-<br>1:00 PM    | <b>Workshop 1035</b><br><a href="#"><u>A Disaster During Lockdown: An Exercise in Managing the Logistics, Potential Evacuations and Key Aspects of Multiple Disruptive Events</u></a>                                       | AMR00,<br>AMR10,<br>AMR20,<br>AMR30,<br>AMR40,<br>AMR50 |
| Monday<br>1/25<br>1:00 PM-<br>2:30 PM     | <b>Lectern Session 1088</b><br><a href="#"><u>Transportation Lean Forum (TLF) Community of Practice</u></a>   | AJE15   |
| Monday<br>1/25<br>1:00 PM-<br>2:30 PM     | <b>Lectern Session 1090</b><br><a href="#"><u>Learning from the Past and Moving into the Future in Roadway Design</u></a>   | AKD10   |
| Tuesday<br>1/26<br>11:30 AM-<br>1:00 PM   | <b>Poster Session 1174</b><br><a href="#"><u>Workforce Development Life Cycle: Meeting the Needs of the Transportation Workforce Poster Session</u></a>   | AJE15   |
| Tuesday<br>1/26<br>11:30 AM-<br>1:00 PM   | <b>Poster Session 1173</b><br><a href="#"><u>The Times They are a Changing - Workforce Development and Organizational Excellence as impacted by COVID-19</u></a>  | AJE15   |
| Tuesday<br>1/26<br>2:30 PM-<br>4:00 PM    | <b>Poster Session 1213</b><br><a href="#"><u>Artificial Intelligence and Machine Learning Methods for Transportation Applications (Part I)</u></a><br>(See: TRBAM-21-01762)   | AED50   |
| Tuesday<br>1/26<br>4:00 PM-<br>5:30 PM    | <b>Poster Session 1250</b><br><a href="#"><u>Information Systems and Technology</u></a><br>(See TRBAM-21-02912 and TRBAM-21-02955)  | AED30   |
| Wednesday<br>1/27<br>4:00 PM-<br>5:30 PM  | <b>Poster Session 1331</b><br><a href="#"><u>Putting Transit Data to Work: Advancements in Making, Mixing &amp; Matching, and Employing Machine Learning (ML) Techniques</u></a><br>(See TRBAM-21-00252 and TRBAM-21-01303) | APO90   |
| Friday 1/28<br>10:00 AM-<br>11:30 AM      | <b>Poster Session 1353</b><br><a href="#"><u>Artificial Intelligence and Machine Learning Methods for Transportation Applications (Part II)</u></a><br>(See TRBAM-2101879)  | AED50   |
| Thursday<br>1/28<br>10:00 AM-<br>11:30 AM | <b>Lectern Session 1351</b><br><a href="#"><u>FHWA Leadership in Innovation</u></a>   | E0000   |

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|---|---|--------------|
| <p>Thursday<br/>1/28<br/>1:00 PM-<br/>2:30 PM</p> | <p><b>Lectern Session 1378</b><br/><u><a href="#">The Future of Transportation Data Management and Best Practices</a></u></p>   | <p>AED40</p> |
| <p>Friday<br/>1/29<br/>11:30 AM-<br/>1:00 PM</p>  | <p><b>Poster Session 1433</b><br/><u><a href="#">Artificial Intelligence and Machine Learning Methods for Transportation Applications (Part III)</a></u><br/>(See TRBAM-21-00655)</p> | <p>AED50</p> |

## Developed Session Details

### Lectern Session 1380

# Library and Knowledge Management Practices That Help Employees Find What They Need, Wherever they Are

## Event Description

The recent pandemic has accelerated the need to support remote access to authoritative information resources and facilitate person to person collaboration in new ways. This session looks at how organizations can use coordinated library and knowledge management practices to make sure that employees can find and access the information they need to do their jobs - from both digital resources and colleagues.

Alex Linthicum, USDOT OST-R/Volpe Center, presiding

### **Transitioning together: Library and Knowledge Management Roles at WSDOT**

Leni Oman, Washington State Department of Transportation

Kathy Szolomayer, Washington State Department of Transportation

### **Knowledge Management in Action: Oklahoma DOT's KM Initiative with the Oklahoma Transportation Library**

Michael Molina, University of Oklahoma

Michelle Farabough, Oklahoma Department of Transportation

### **Developing KM through Librarian and Records Management Collaborations**

Shelly Ray, Los Angeles County Metropolitan Transportation Authority

### **Library and Knowledge Management at TechnipFMC**

Kim Glover, TechnipFMC

## Poster Session 1310 - Current Topics in Information and Knowledge Management

### Racism discussed in Transportation Research: Bibliometric Analysis and Topic Modeling

Racism, in the form of racial discrimination and racial inequality, shows its dire presence till today. Participants of a new national survey suggested that the legacy of slavery continues to have an impact on the position of African American people in American society. Racism in transportation is a critical issue. Studies suggested that the interstate system of the U.S. is based on some form of structural racism. To understand the research contexts associated with 'racism in transportation studies,' this study collected relevant study information from Transportation Research Board 'TRID' platform. After performing a review on the relevant studies, this study conducted a bibliographic and scientometric study to determine the trends and patterns of these studies. Besides, topic models are developed and displayed in word clouds to provide insights and trends of the relevant studies. The findings of the current study can provide some talking points in the ongoing discussion on this critical issue.

Subasish Das (s-das@tti.tamu.edu), Texas A&M University  
Ruihong Wang, Purdue University

### Pandemic and Transportation Research: Bibliometric Analysis and Topic Modeling

'Pandemic and transportation,' a latent topic, has become of the most discussed topics in recent days due to the extraordinary impacts of COVID-19. The number of studies has been exponentially growing for this topic. It can be noted that transportation is one of the sectors that has been drastically affected by the consequences of COVID-19. As this branch of research is growing fast, it is important to get an overall understanding of the 'pandemic and transportation' related studies. This study collected relevant studies on this topic from the past 15 years. This study performed three major tasks: 1) conducted a brief literature review on the related studies, 2) performed bibliometric and scientometric analysis on the collected studies, and 3) developed topic models from the unstructured textual data in paper or report titles and abstracts. The findings show that the research trends in 'COVID-19' and 'pre COVID-19' studies have some common issues. However, 'pre COVID-19' papers are mostly associated with guidelines and strategic planning. As COVID-19 is still an ongoing pandemic, the research topics are mostly associated with impact and consequences. As one of the earlier studies on this topic, this study sheds some insights into the ongoing discussions about 'pandemic and transportation.'

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