

## AJE45 Information and Knowledge Management Committee – Spring Call

May 14, 2020 1-2 PM Eastern

Notes by: Frances Harrison

1. Status of new committee formation (Frances)
  - Committee Proposal submitted (due June 1) – see attached. We can adjust the scope in the future as we go through our first strategic planning process as a new committee.
  - Anticipating TAC Approval by July 1
  - Initial membership list submitted based on existing active members of LIST and KM TF - members to be notified by TRB once committee is official
  - Anticipate making some adjustments to membership once established – emphasis on active participation – people who will lead/work on initiatives + seeking balance/diversity – geographic, demographic, expertise/interests, organizational affiliation.
2. TRB Update (Jason)
  - TRB not doing call for papers, Blue Ribbon committee awards, paper awards, cross-cutting sessions, Emeritus nominations this year
  - Annual meeting will occur, but may be fully/partially virtual - decision anticipated in July
  - Paper submission site opens June 1, deadline for papers August 1
3. Annual Meeting Workshop Proposal (Kendra)
  - Proposals due June 15<sup>th</sup>
  - Committees get 1 workshop every other year
  - KM TF has a proposal on knowledge transfer from last year that wasn't selected
  - Other ideas? Volunteers to lead/assist?
    - Plan series of short webinars – instead of a workshop? Check with Elaine Farrel
    - Maintaining continuous learning through COVID 19 (Stephanie Clark)
    - Capturing intellectual capital (Stephanie Clark)
    - Document and information retrieval/management for agencies without libraries (Bob Sweet)
    - Enhancing resilience (Silvana Croope – can serve as liaison to related committees)
    - Understanding how different technologies support KM for DOTs as we evolve into the cyber world; vision of transportation becoming an info management agency (Silvana Croope)
    - Staying connected in the pandemic world – (Doug Couto)
    - Cyber and workforce – shortage of skilled people, need others to learn and address issues. collaboration with enterprise issues and cyber committee/Info Systems and Technology committee (Doug Couto)
    - Information and Knowledge Management – why bother, importance of KM to smart mobility, KM and automated driving systems, relationship between AI and KM (Bob McQueen)
    - Workflow management for information and KM – Michigan DOT (Upul Attanayake)
    - How KM systems are responding to the knowledge capture in responding to the COVID 19 crisis – panel discussion

- Use COVID as main focus – then build on subtopics (Enid White) – or perhaps resilience as the more general need?
  - On the other hand, there may be too many other COVID workshops? May be moot by then?
  - Tyler R – putting together webinar series on resiliency – technology, socio-economic, cyber, etc. COVID has driven this point home. Resiliency+agility in transit, supply chain, etc.
  - Related to teleworking – what documents rise to the need for archival preservation – how to prioritize? Destroying documents or boxing them up not the best idea – presentation on TxDOT efforts.
  - Digital preservation for born-digital materials
  - Role of learning and development in cultivating knowledge management and intellectual capital.
  - Transition from physical to digital library – ability to provide and sustain virtual services in an organization is important – not just in a pandemic. Explore how do we provide and sustain info and knowledge services in a new environment, make sure people have info needed to do their jobs. How organizations can leverage library organizations in their KM strategies. (Mary Moulton)
  - Distinguishing what is true/real
  - What DOT activities can be remote?
  - Following standards for digitization – skill-oriented workshop on how to reach digital resiliency – example contracts for digitization that have been successful
4. Annual Meeting Session and Committee Meeting Ideas (Alex)
- Launching a New Century of Mobility and Quality of Life – theme for next year’s Annual Meeting
  - Committees are allocated 2 sessions, but can co-sponsor with others
  - Many of the workshop ideas above can be considered for sessions
  - Goals and agenda items for committee meeting
  - Benjamin Anjacho – interested in who has applied research already conducted and how
  - Alex – in the past we have established a general goal for the sessions – e.g. merging KM + a specific application (last year – Smart Cities – how to use pilot studies to transfer knowledge back in a field undergoing rapid change.
  - Alex to set up a follow-up meeting to sort through ideas, set goals, decide on session vs. workshop
5. Research Subcommittee Report (Leni/Enid)
- monthly meetings of research subcommittee being held
  - Enid White has agreed to be co-chair with Leni
  - see attachment for the full report
6. Communications Report (Jessica/Bobbi)
- Bobbi and Jessica are sharing the Committee Communications Coordinator role
  - once we are “official”, everyone who is not a member should sign up as a friend at myTRB
  - looking for volunteers for combining the websites (Rachel Cole volunteered - rachel.cole AT northwestern.edu)

**New Committee Proposal**  
**Committee on Information and Knowledge Management**

Proposed name: Committee on Information and Knowledge Management (AJE45)

Sponsoring Group: Policy and Organization Group (AJ000), Executive Management Issues Section (AJE00)

Scope Statement: 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.

Committees with related scopes: This committee relates to several other committees in the Executive Management Issues Section, and the Data and Data Science Section.

*Within the Executive Management Issues Section, the committees with titles and scopes related to AJE45, and associated common interests are:*

- Transportation Workforce Management (AJE15) – sustaining and improving agency productivity through capture, retention and application of institutional knowledge – through techniques including mentoring, succession planning, and communities of practice;
- Strategic Management Committee (AJE100) – adapting transportation organizations to best leverage available information and knowledge sources and support continuous learning and innovation;
- Research and Innovation Management (AJE35) – improving identifying research needs, management, preservation, dissemination and transfer of research results and innovative practices; and
- Data for Decision Making (AJE70) – capturing and delivering information on strategy effectiveness to agency leaders through connecting peer agencies, after action reviews and storytelling; identifying information necessary for decision making; capturing information about why certain decisions were made (i.e. contributing factors) to inform future related decision making.

*Within the Data and Data Science Section, the committees with titles and scopes related to AJE45, and associated common interests are:*

- Statewide Transportation Data and Information Systems (AED10) – data and information organization, management and governance within state DOTs;
- Urban Transportation Data and Information Systems (AED20) – data and information organization, management and governance within local transportation agencies and MPOs; knowledge dissemination across agencies about effective practices and technology applications (including those related to smart cities);
- Information Systems and Technology (AED30) – information architecture, development of common semantics, data and metadata standards for transportation; technology solutions for information and knowledge sharing;

- Geographic Information Science (AED40) – applications of geospatial technology for information and knowledge sharing; and
- Artificial Intelligence and Advanced Computing Applications (AED50) – AI techniques supporting information search and discovery and knowledge extraction including natural language processing (NLP), semantic search, and machine learning.

How this committee complements work of related committees: We complement existing committees by pursuing a holistic, multi-disciplinary approach to aligning knowledge and information resources to address transportation business needs and to advance transportation research and practice. This approach brings together elements of organizational management, learning and innovation, library and information science, data and computer science, and cognitive science.

Why a subcommittee would not be sufficient: Information and knowledge management is too broad a topic for a subcommittee. This committee will form subcommittees to focus on specific topics. Some of these may be joint subcommittees with the committees listed above.

Contributions to TRBs research and innovation mission: There are significant opportunities for improvements to how transportation agencies create, access, retain and share knowledge and information. Such improvements – based on established (and continually advancing) techniques in other industries (e.g. medicine), are essential for realizing the value of TRB research – and for contributing to research and guidance on effective practices.

Demand: This committee is being formed from two active existing TRB groups – the Library and Information Sciences for Transportation (LIST) Committee and the KM Task Force. Both groups have a strong track record of organizing well-attended meetings, sessions and workshops and identifying and advancing research needs.

The organizations outside of TRB with the strongest overlap of interests with AJE45 are:

- the American Association of State Highway and Transportation Officials (AASHTO) Knowledge Management Committee
- the AASHTO Data Management and Analytics Committee
- the AASHTO Human Resources Committee
- the AASHTO Special Committee on Research and Innovation, and
- the AASHTO Performance-Based Management Committee’s Subcommittee on Organizational Management.

These AASHTO groups represent the target audience for research and dissemination activities to be conducted by AJE45.

Other external groups of note include the National Transportation Knowledge Network (NTKN), and the Special Libraries Association – Transportation Division.

We intend to involve members of these external groups as members and friends of AJE45, and pursue collaborative efforts. Two such efforts are already underway: a joint research subcommittee with the AASHTO Committee on Knowledge Management, and work with the NTKN on a KM [LibGuide](#) for sharing resources of common interest.

## **TRB 2020 Workshop Proposal: Using Knowledge Capture and Transfer to Drive Operational Excellence**

Transportation agencies can improve performance by using a variety of knowledge capture and transfer techniques such as knowledge interviews, desk manuals, process mapping, last lectures, and job shadowing. This workshop provides technique overviews, considerations for selection, demonstration of selected techniques, and an opportunity for hands-on practice. For example, upon completion, attendees will know how to retain critical institutional knowledge as employees retire or change jobs.

## Research Subcommittee Report

Enid White and Leni Oman, the Committee Research Coordinators for the former LIST and the KM Task Force, will serve as co-CRCs for AJE45. The KM Task Force had formed a Joint Research Subcommittee with the AASHTO Committee on Knowledge Management. This is continuing for now and we will assess this partnership over the next year. We meet the fourth Thursday of each month at 8:00 am Pacific Time for one hour.

We also plan to update the research subcommittee membership through a call to members and friends of the partner organizations. If you are interested in joining us, please contact Enid or Leni.

Recent research news:

- Three research problem statements were submitted for consideration in the NCHRP 2021 program and we're excited to share that the following two were funded:
  - o [Assessing and Measuring the Business Value of Knowledge Management](#)
  - o [Research Roadmap for Knowledge Management](#)

The problem statement to create an [Oral History Guidebook for Transportation Agencies](#) did not receive funding. This was submitted on behalf of the former TRB Transportation History Committee. We will explore options for funding.

- Three projects are underway:
  - o [NCHRP 23-02 Guidelines on Collaboration and Information Security for State DOTs](#) – Southwest Research Institute (SWRI) has been selected as the contractor and the panel will meet with them in June.
  - o Panels formation is underway for two NCHRP 20-24 projects. 20-24 projects support the Administration of Highway and Transportation Agencies:
    - § *Mapping the Common Interests of AASHTO Committees* - NCHRP 20-24 (131)
    - § *Understanding Knowledge Management in Context with Other Organizational Practices* – NCHRP 20-24 (132)
- One project is near completion. [NCHRP 20-44 \(11\)](#) *Advancing practices for data governance, information management, and managing the impact of digitalization on state DOT workforces*. This project provided funding and contractor support to host an in person meeting for the members of the AASHTO Joint Task Force on the Impacts of Digitalization on State DOT Workforces and a peer exchange of State DOT Chief Data Officers. The project report is in review.

We are discussing Knowledge Translation: how are ideas conceived, developed, and put into practice. This seems similar to NCHRP 20-123(9) *Pathway to Innovation*. We have not yet had a chance to explore connections.

And, of interest to committee members:

- o A project about knowledge graphs was funded by the AASHTO Special Committee on Research & Innovation earlier this year. If a member or friend is familiar with this project, please contact Enid and I so we can learn more about the project and help share findings with our community.

o [NCHRP 20-24 \(95\)](#) *NCHRP Agency Capability Building Web Portal* is wrapping up. Check out the portal that was created here: <https://www.agencycapability.com/>.

We will be developing new research need statements, reviewing research results we'd like to help amplify, and exploring ways to help our community innovate. We'd love your ideas and energy. Please consider joining our team.