

**TRB Library and Information Science for Transportation TRT Subcommittee  
Saturday, June 14, 2008  
Seattle, Red Lion on Fifth Avenue**

Present: Paul Burley, Northwestern University Transportation Library; Bob Cullen, AASHTO; Pat DeSalvo, Virginia DOT (Chair); Kimberly Edwards, National Transportation Library; Rita Evans, UC Berkeley, Institute of Transportation Studies Library (Recorder); Andy Everett, Washington State DOT Library; Dr. Trent Hill, University of Washington, School of Information (Guest); Joyce Koeneman, retired; Kendra Levine, UC Berkeley, Institute of Transportation Studies Library; Seyem Petrites, UC Berkeley, Institute of Transportation Studies Library; Barbara Post, Transportation Research Board; Sandy Tucker, Texas A&M University; Amanda Wilson, National Transportation Library

**1. Welcome and introductions – Pat DeSalvo**

**2. “Domain Analysis of Controlled Vocabulary” – Dr. Trent Hill**  
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Dr. Trent Hill, Senior Lecturer at the University of Washington’s School of Information, was invited to address domain analysis, information architecture, and thesaurus and taxonomy construction.

In considering a domain such as transportation, we need to step back from technical analysis and ask questions at a higher level such as user needs:

- Overarching thesauri questions
- How to incorporate and address user needs
- How can we give editorial judgments a sound bases
- How do we avoid driving ourselves crazy, i.e., how many hours do you want to argue about one term?

The goal is to understand the domain’s structure and boundaries by focusing on collective knowledge structures, roles, tasks and associated information needs. In practice, you’ll identify key figures, issues, works, documents, document types, research methodologies, and theories.

What is a domain? It is a group of people, localized or distributed, working on issues of common performance, using a common vocabulary, in different types of public forums. It also encompasses the social, institutional and conceptual glues the hold them together and enable that communication. It does not attempt to encompass all knowledge.

The problem? While we talk a lot about users, traditional knowledge organization work and design focuses on the documents being processed rather than what they might be used for. While consulting individual users may not be feasible or useful, domain analysis mediates between document-centered and cognitivist approaches to Knowledge Organization design.

You need to identify the core facets or what is central to the domain. Not all facets will be treated equally. To begin a domain analysis, find documents that help you determine the ontology (important things), epistemology (important problems, theories, methods and practices), and social structures in your field. Three approaches:

- Look for professional organizations
- Track down forums
- Find a user and ask nicely

How glandular will the thesaurus be, e.g., how many types of girders do you want to capture? Can you determine if these distinctions are important to your users? Determine if the amount of literature warrants a distinction. Do not get so specific that you confuse your users.

Greater precision can result in poorer recall. The more specific the terms are, the harder it may be for users to retrieve broader concepts and views. Having found something under “bathtub girder,” a user is very unlikely to then look for the broader term “girder.” Editorial control may be needed to make sure your users do not miss things completely.

We discussed the question of the size of a thesaurus – is there a point at which size starts to create problem for user?

IT (information technology) and ITS (intelligent transportation systems) present special problems. Are these topics being addressed as transportation issues or network issues? Perhaps we should concentrate on deployment and applications. Do terms in the TRT reflect current usage? Go back to the domain – transportation – and consider, for example, how a transportation engineer would think about network issues and where the interest would be.

From domain analysis perspective, when trying to handle a “fringe area” for the thesaurus development, begin by identifying key conferences, journals, internet discussion forum, etc. They can be a key resource for identifying a proper level of specificity. Develop a sense of how trans practitioner address economics, or IT, or whatever related area is. Use the important literature in the field as a measuring stick, and remember that conference literature may be even more useful than journal literature.

### **3. TRT Principles Document (draft) and NTL Thesaurus Committee – Amanda Wilson, NTL**

The recent merger of NTL and the US DOT Library has given Amanda additional resources for projects including work on the TRT. Kimberly Edwards, a contractor with NTL, was brought on board for NHTSA digitization project and is now working on JPO and other projects. Pat DeSalvo had contacted the National Agriculture Library regarding NAL’s policies and procedures for thesaurus development and indexing and NAL strongly suggested that NTL develop a “Principles” document. Keith Morrision from the

US DOT Library is also on the TRT team, and he drafted “Principles for the Organization of the TRT.”

Kimberly (by phone) reviewed the main points from the principles document.

Polyhierarchies – There is some question whether TRT’s notational hierarchy allows for polyhierarchy, but in case of homographs, a qualifier such as a scope note, for example, Equilibrium (Economics) and Equilibrium (Mechanics), needs to be created. In moving forward, NTL wants to make sure every term is qualified. Some problematic terms include “culverts” and “grade crossing protection systems.” Amanda does not want duplicate terms in the same facet, although they could occur within the overall hierarchy. A good way of dealing with duplicate terms are parenthetical qualifiers. Cross-references and lead-in terms are also possible solutions. (Cross reference is a “Use for” term. In TRT, “Cross-reference” = RT2.)

Paul Burley asked about use of acronyms. Terms are spelled out in the TRT, but users are much more likely to use “DUI” than “Driving under the influence.” Barbara said lead-in terms are supposed to cover this by pointing user to complete term, but Rita noted that there aren’t enough lead-in terms. The NTL TRT team is working on adding more. Should we abandon the practice of spelling out terms and adopt the acronym as the preferred term? Strong argument for this, especially if the TRT is to serve its users rather than its indexers. Barbara said the search function should allow for the system to search for both the term as entered and the preferred term automatically.

Amanda asked that comments about the draft “Principles” document be sent to Pat DeSalvo by July 18.

#### **4. Candidate Term Review Form (draft) – Pat DeSalvo**

Pat distributed a TRT Candidate Term Review Form draft. It asks for a reason and citations to usage. Rita asked if UC Berkeley indexers can continue to designate CTs (Candidate Terms) as articles are indexed; yes, they can. “Candidate Terms” remain something of a grey area, but “Candidate Terms” are only those that have been vetted by NTL. NTL said suggested terms from Berkeley are identified as such, i.e., NTL knows that these terms are being suggested by experienced indexers and are not lumped with all other suggestions. Barbara sends NTL a monthly report that shows the frequency of use of CTs, and other terms besides Index Terms.

The form will be used by NTL. Once NTL has completed a form, it will be posted on the VDOT site for the subcommittee to use. When they respond to NTL, it will be with a simple yes, no, or park. NTL does not want to receive full background on discussion.

#### **5. Discussion/Evaluation of Subcommittee Review Process – Pat DeSalvo**

A vote for approval will require three-quarters of the votes in favor, with 50%, or 8 of 15 subcommittee members, constituting a quorum. AASHTO, state DOTs and TRB

committees could be sources for subject experts. Sandy said LIST will alert TRB that committees may be approached for input.

Four week review process:

Weeks 1-3 weeks: discussion

Week 4: conference call and vote

Decisions will be conveyed to NTL in March and November.

Terms can only be parked for one year.

## **6. Beyond the Review Process -- Expectations, Roles, Responsibilities**

### **TRANLIB call for candidate terms, announcement of new terms – Paul Burley**

General calls in January and July to TranLib will ask for suggestions for new terms. Once decisions are made, they will be publicized to TranLib. Paul suggested a complete annual timetable beginning with the call for new terms and ending with publicizing new terms and why some terms were parked or rejected. Paul will give Pat a draft year-long schedule that will incorporate NTL's TRT activities, the subcommittee's activities, alerts to TranLib, etc. The TRB's eNewsletter was suggested as a way to publicize committee work.

### **NCHRP 20-79 Expansion of the TRT – Barbara Post**

Barbara thanked the NCHRP panel for a great deal of work in selecting a contractor to carry out the TRT expansion. CDB enterprises was selected and David Batty, Gayle Batty, Jeanne Thomas and Michael Kleiber will work on the project.

### **Revisions/enhancements to facets within the TRT – Amanda Wilson**

Amanda said that NTL would like subcommittee to consider the existing facets within the TRT and determine whether strategic changes should be made in systematic fashion. This would be done in conjunction with the addition of terms, removing duplicates, etc. Operations, methodologies and intelligent transportation systems (ITS) were mentioned as areas where work needs to be done. Sandy suggested that the effort be coordinated. Andy volunteered to work on operations, Rita and Kendra on methodologies and ITS, and Amanda also on ITS.

### **TRT archives**

The ITS Library at Berkeley will contact Michael Kleiber regarding his files relating to the TRT and its development. They will attempt to capture and retain anything with archival value and will report to Pat.

Meeting adjourned.