Chapter VI

TREC and Interactive Track Environments

Overview of TREC

History and Background

The Text REtrieval Conference (TREC) is sponsored by three agencies—the U.S. National Institute of Standards and Technology (NIST), the U.S. Department of Defense, Advanced Research Projects Agency (DARPA), and the U.S. intelligence community’s Advanced Research and Development Activity (ARDA)—to promote text retrieval research based on large test collections. Overviews of TREC (Harman & Voorhees, 2006; Voorhees & Harman, 2005) and the TREC Web site (trec.nist.gov) have provided a comprehensive review of TREC conferences. This section is compiled based on these resources. TREC started in 1992 with 25 participating groups, including the leading text retrieval groups, to search two gigabytes of text. For each TREC, NIST offers a test collection and questions. Participating teams follow the guidelines, run the data on their own IR systems, and return the results.
to NIST. NIST evaluates the submitted results and organizes workshops for participants to discuss their experience and present results. By the end of 2005, 14 TREC conferences had been held.

According to the TREC Web site, the objective of TREC is to achieve the following four main goals:

- To encourage research in text retrieval based on large test collections;
- To increase communication among industry, academia, and government by creating an open forum for the exchange of research ideas;
- To speed the transfer of technology from research labs into commercial products by demonstrating substantial improvements in retrieval methodologies on real-world problems; and
- To increase the availability of appropriate evaluation techniques for use by industry and academia, including the development of new evaluation techniques more applicable to current systems (http://trec.nist.gov/overview.html).

**Types of Tracks**

Table 6.1 (as shown in Voorhees, 2006, p. 7) reviews the number of participants per track and total number of distinct participants in each TREC. Adapting and expanding Voorhees and Harman’s classification of tracks (2005, pp. 8-13) as well as examining the TREC home page (http://trec.nist.gov), the author summarizes all the tracks of TREC to 2005 and the types of tasks performed in TREC.

The tasks performed in TREC consist mainly of the following:

- **Static text:** The Ad Hoc Track is a typical document retrieval task on a static collection of text documents. The Robust Retrieval Track reintroduces the traditional ad hoc retrieval tasks, but the evaluation focus is on topic effectiveness instead of average effectiveness.

- **Streaming text:** The Filtering Track and Routing Track deal with retrieving documents from a stream of text. While the purpose of the Routing Track is to formulate a basic task, the Filtering Track occurs afterward to make binary decisions about whether to retrieve a document that should be retrieved. The Spam Track is similar to the Filtering Track but focuses more on general e-mail filtering.

- **Human-oriented:** The Interactive Track investigates users’ interaction with IR systems focusing on the process and the results. The Interactive Track, which started in TREC 3, became the interactive part of the Web track in TREC 12.
28 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the product's webpage:

www.igi-global.com/chapter/trec-interactive-track-environments/24527?camid=4v1

This title is available in InfoSci-Books, InfoSci-Database Technologies, Business-Technology-Solution, Library Science, Information Studies, and Education, InfoSci-Library Information Science and Technology. Recommend this product to your librarian:

www.igi-global.com/e-resources/library-recommendation/?id=1

Related Content

Virtual Community of Practice Ontocop: Towards a New Model of Information Science Ontology (ISO)
www.igi-global.com/article/virtual-community-practice-ontocop/58891?camid=4v1a

An Efficient and Flexible Approach of Keyword Search in XML
www.igi-global.com/chapter/efficient-flexible-approach-keyword-search/69125?camid=4v1a

An Efficient Approach for Incremental Association Rule Mining through Histogram Matching Technique
www.igi-global.com/article/efficient-approach-incremental-association-rule/74782?camid=4v1a
A Presentation-Preserved Compositional Approach for Integrating Heterogeneous Systems: Using E-Learning as an Example


[www.igi-global.com/chapter/presentation-preserved-compositional-approach-integrating/73778?camid=4v1a](www.igi-global.com/chapter/presentation-preserved-compositional-approach-integrating/73778?camid=4v1a)