



Perilog

A contextual search method for improving search results

This invention is available for Licensing out of NASA's space program to benefit U.S. industry. NASA's Ames Research Center offers for license its patented Perilog software, a contextual search method that provides a simple-to-use means of finding and ranking text documents according to their relevance to particular words or phrases.

Rather than simply finding documents that contain particular words or phrases, Perilog overcomes the shortcomings of other search methods by discovering contextual associations between words and phrases.

Perilog's ability to automatically identify contextual associations in a document set enables conceptual and semantic search without the need to maintain categorization for the documents. Users are quickly able to identify related topics, even if those topics do not co-occur in the same document and the user has no prior knowledge of the documents.

Technology Details

Perilog's underlying algorithm is based on the theory of experiential iconicity, which states that patterns of relatedness among things in the world of experience systematically influence patterns of relatedness among words in written discourse. Perilog's ability to deliver semantic and conceptual search results through an automated algorithm, without the need to rely on natural language processing or manually (or semi-manually) maintained categorization, follows directly from the theory of iconicity.

Commercial Applications

Perilog can enhance many search-related applications, including: • Large knowledge management and document retrieval systems, for legal research, market research, intellectual property asset management, claims management, etc. • Life sciences and medical research • Intelligence analyses • Commercial search engines • Contextual online advertising • Airline flight safety databases

Patents

This technology has been patented. U.S. Patent Nos. 6,823,333; 6,741,981; 6,697,793; and 6,721,728. (Reference No. ARC-14512-1, ARC-14513-1, ARC-14514-1, ARC-14515-1)

Benefits

- **Reliable results:** Delivers more relevant search results, with fewer queries by the user
- **Contextual relevance:** Enables users to discover words, ideas, and situational details that are contextually associated with a specific query
- **Intelligent search:** Allows users to discover key themes in large document sets, with no prior knowledge of the documents
- **Efficient classification:** Eliminates the time and expense associated with maintaining document categorization (i.e., ontology), delivering semantic and conceptual search results