

Information Technology and Software

Perilog

A contextual search method for improving search results

Perilog software is 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.

BENEFITS

- **Reliable results:** Delivers relevant search results, with fewer queries by the user
- **Contextual relevance:** Discover words, ideas, and situational details that are contextually associated with a specific query
- **Intelligent search:** 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

technology solution

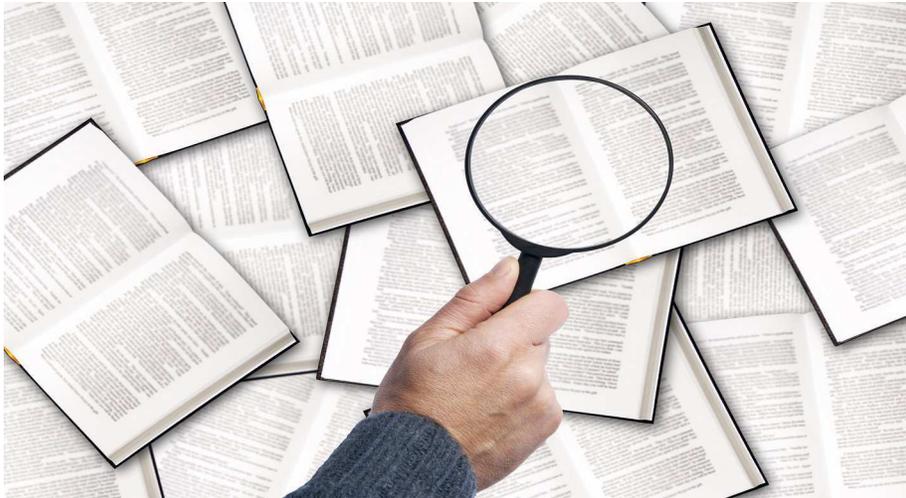


NASA Technology Transfer Program

Bringing NASA Technology Down to Earth

THE TECHNOLOGY

Perilogs 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. Perilogs 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. Eliminates the time and expense associated with maintaining document categorization (i.e., ontology), delivering semantic and conceptual search results



A Contextual Search Method for Improving Search Results

APPLICATIONS

The technology has several potential applications:

- ➔ Large knowledge management and document retrieval systems
- ➔ Life sciences and medical research
- ➔ Intelligence analyses
- ➔ Commercial search engines
- ➔ Contextual online advertising
- ➔ Airline flight safety databases

PUBLICATIONS

Patent No: 6,823,333; 6,741,981; 6,697,793; 6,721,728

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NASA's Technology Transfer Program pursues the widest possible applications of agency technology to benefit US citizens. Through partnerships and licensing agreements with industry, the program ensures that NASA's investments in pioneering research find secondary uses that benefit the economy, create jobs, and improve quality of life.

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