Leveraging semantics for intelligent scientific search

Advance your research

Smart search engines are an ubiquitous feature of modern life. Harnessing intelligent search features including domain-aware, contextual, predictive and assistive suggestions with our powerful semantic search platform, SciBite has created SciBite Search. This next-generation text analytics semantic search tool enables researchers to quickly find meaningful insights from public and proprietary biomedical data and is designed for departments wanting their own tailored search tool. Non-expert or expert users can search structured database-type information and unstructured data, like Word documents, PowerPoint presentations and PDFs.

• **AI-POWERED SEARCH** Load and search millions of documents with free text or a rich array of Life Science taxonomies.
• **LEVERAGE DOMAIN SPECIFIC ONTOLOGIES** To answer complex questions and build a semantically-linked network of biomedical documents.
• **EASY TO DEPLOY AND CONFIGURE** Define how and who can access and analyse data.

Unlock data from across your organisation

Scientists are increasingly confronted with large volumes of data from multiple sources and different formats. With SciBite Search, researchers can load and analyse millions of documents from a variety of sources and formats (such as MEDLINE, clinicaltrials.gov, PDFs and Sharepoint) within a single solution. The smart index behind SciBite Search: TERMite, the named entity recognition engine typically processes around 1,000 MEDLINE abstracts per second, and VOCabs, over 20 million expertly curated scientific terms and their synonyms, fully captures both the search keyword and its meaning. This identifies relevant hits from biomedical data by disambiguating terms and acronyms.

Explore hidden connections

SciBite Search offers an intuitive user interface (UI) that allows researchers to quickly begin accessing the results they need. Users are able to search at a document or sentence-based level, and power users can build more sophisticated queries using the advanced search form or SciBite Search Query Language (SSQL). Facet filtering by field, entity and taxonomies, authoritative standards that adhere to FAIR (findability, accessibility, interoperability, and reuse) data principles and co-occurrence analysis, present researchers with semantically linked networks of documents that include entities found together with the query term(s).

Figure 1: Simple search interface: visualise hits quicker with facet filtering and text highlighting across results. [VIDEO]

Figure 2: From simple strings to an augmented search: access related insights from annotated documents that connect concepts and answer broader questions.
Built for your needs

The SciBite Search solution is designed to address research challenges using state-of-the-art technologies to support your modern enterprise needs. A suite of customisation and personalisation options enable enterprises to support different user groups and users. All of this is supported by RESTful API endpoints that can be easily integrated into workflows and existing ecosystems. SciBite Search integrates across a whole range of use cases, from discovery through to development, including:

- Unify multiple data sources into a single solution for an organisation-wide search tool. For example, combining public biomedical literature, clinical trials, and grants with proprietary data to facilitate smarter one-stop-shop searching
- Incorporate full-text biomedical literature data from publishers to better address the researcher discovery needs. For example, you can load subscribed licensed data from partner publishers (e.g. Elsevier, Wiley, Springer Nature, etc.)
- Produce bespoke team project databases, controlling access and interrogating internal document subsets. Users can limit what other groups or partners have access to.

Transforming the search experience

SciBite Search includes security and role-based permissions providing the ability to control access by department or individuals. Using the advanced configuration settings, administrators and individuals can modify system settings to best address the analysis needs. Options include UI adjustments to support company branding and display of results, controlling data ingestion, indexing, and search weighting. The inclusion of features like the mark-up of original document formats along with “natural language searching” that can be developed to an individual or organisation’s needs, continue to transform the search experience.

About SciBite

SciBite is an award-winning semantic software company offering an ontology-led approach to transforming unstructured content into machine-readable clean data. Supporting the top 20 pharma with use cases across life sciences, SciBite empowers customers with a suite of fast, flexible, deployable API technologies, making it a critical component in scientific data-led strategies. Contact us to find out how we can help you get more from your data.