



No AI Experts  
Required

# Cortical.io Semantic Search

Find the right information regardless of how it is formulated

## Why Semantic Search?

- Increase accuracy of search results
- Reduce time spent searching
- Improve search process efficiency

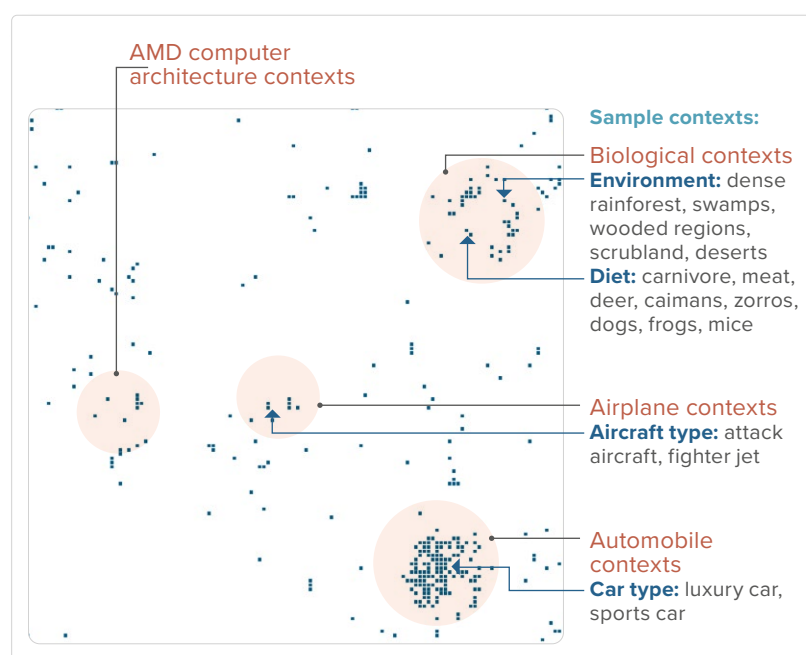
## A search application that understands natural language

Cortical.io Semantic Search finds relevant information buried in terabytes of text and instantly puts it at your fingertips. The application can match answers with search queries that use different words, but have the same meaning.

For example, “done deal” and “contract signed” would return similar results denoting the conclusion of a business agreement. This is one of the fundamental differences between keyword search and semantic search.

With Cortical.io Semantic Search, companies are dramatically improving the efficiency of their search processes by increasing the accuracy and relevance of search results. This leads to both increased customer and employee satisfaction and lower processing costs. There are multiple use cases, for example: enterprise search, matching of job profiles, product recommendation, handbook search, information discovery or searching previously solved support cases to quickly solve new, similar customer requests.

## A search application that combines high accuracy and computational efficiency



Semantic Fingerprint of the word "Jaguar"

Cortical.io Semantic Search combines traditional machine learning algorithms with Cortical.io's proprietary semantic fingerprinting technology, which creates a fine-grained representation of every word by choosing from over 16,000 semantic features. This allows for very fine semantic distinctions, disambiguating terms as required for each use case, and greatly reduces the risk for false positives.

Semantic fingerprints are context-aware, interpretable word and document vectors that preserve sense and eliminate noise. They enable the system to make automatic inferences between unseen vocabulary and terms known from annotated examples.

Because of the semantic fingerprints characteristics, the Cortical.io Semantic Search application requires less training material than usual machine learning-based systems.

Other benefits include the quick indexation of entire repositories, the easy customization to any use case and domain language, and the short implementation time. Comparing the similarity of the query fingerprint with the semantic fingerprints of the documents stored in the index is a highly efficient process that requires less computing power than conventional methods.

Natural language understanding inspired by neuroscience





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## Semantic Search Features at a glance

**Searches** through any kind of structured or unstructured text, including emails, presentations, web pages, contracts, clinical studies, technical reports, handbooks, and social media posts

**Accepts** sentences, paragraphs, and documents of any length as a query

**Easily customized** to any use case or business domain

**Easily integrated** into existing systems and applications as a back-end solution through its REST API

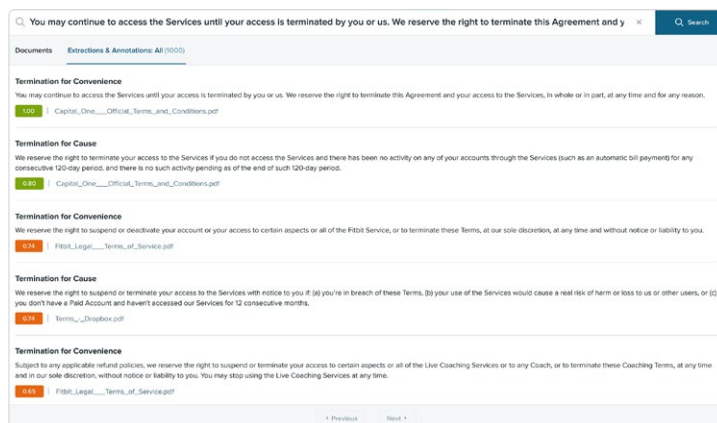
**Ranks results** based on a hybrid ranking model that incorporates both regular expression matches and semantic fingerprint similarity

**Enables semantic exploration** between query and results

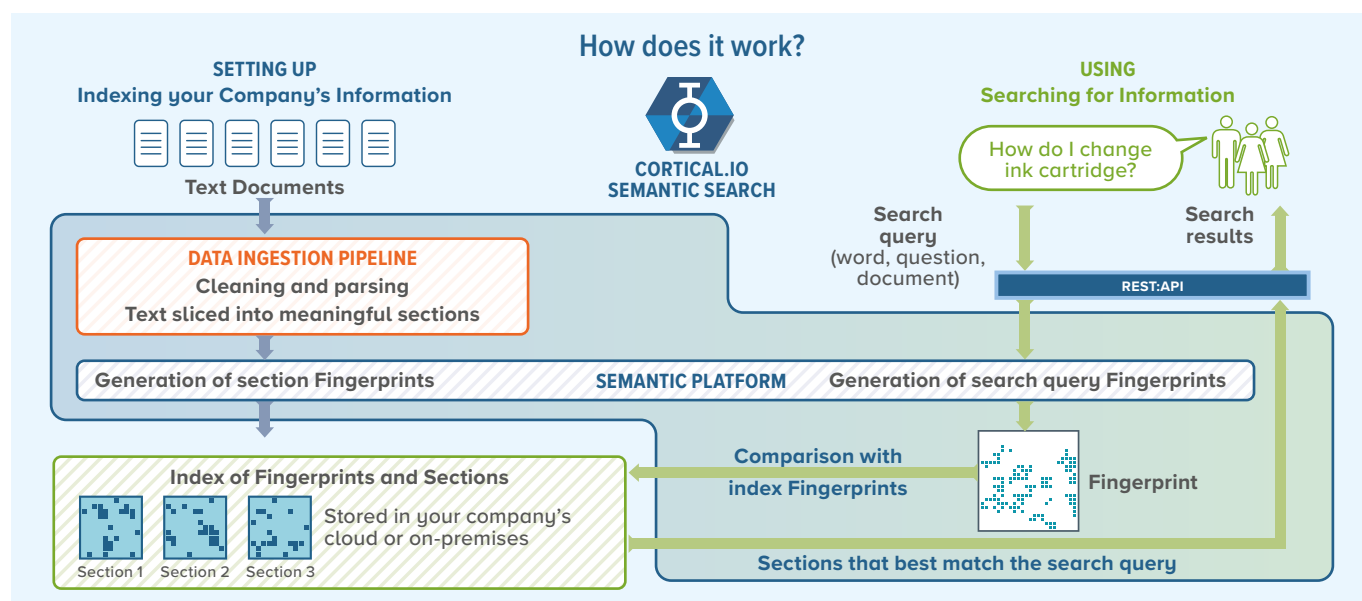
**Incorporates** user feedback

**Converts** scanned paper documents into searchable text

**Processes** the following file formats: pdf, doc(x), xls(x), csv, ppt(x), html, xml, and txt



Semantic Search is integrated in Cortical.io Contract Intelligence where it enables to search through documents, extractions and annotations.



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