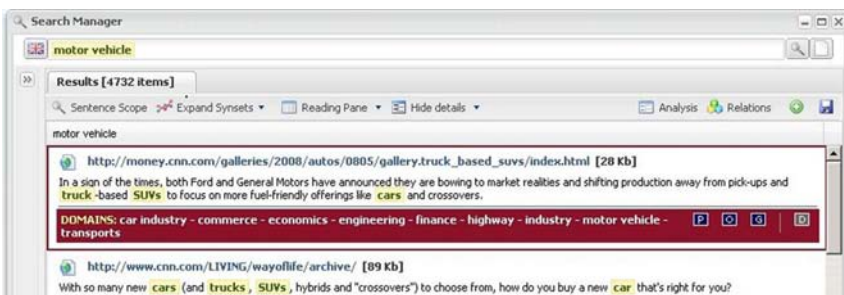


# COGITO® Focus

Expert System's Cogito Focus is the enterprise search engine which has revolutionized the way businesses access and analyze strategic information. The user no longer has to search for information because the information now comes to the user. This valuable feature enables faster and more effective retrieval of relevant data, whether it be contained in databases or found in various types of text (documents, articles, email, web pages, etc.).

Accessible directly on the web, Cogito Focus supports analysts and knowledge workers in the activities of monitoring, search and automatic correlation of information. Cogito Focus provides a competitive advantage to companies because it makes all levels of the decision-making process more insightful and effective.

At the end of each search, Cogito Focus also provides simple content lists: from the categories/topics discussed in documents to the list of companies, products and people cited in the text; from the list of geographic locations to a list of keywords, headwords and concepts; SAO relations, etc... These innovative features allow analysts to optimize content navigation, making the process more intuitive through the retrieval of unexpected relations between concepts.



*Using Cogito Focus, a search for "motor vehicle" provides results containing text about motor vehicles, as well as words with same meaning or related meaning, such as "trucks", "SUVs" and "cars".*

## Benefits

Cogito Focus offers:

- effective and immediate access to strategic information, made simple by an intuitive interface which allows users to browse data in an interactive way;
- advanced features for the analysis of multilingual knowledge bases;
- workflow support which includes the gathering, selection, analysis, correlation and diffusion of data;
- semantic intelligent agents to help the user achieve the best results while searching for information in knowledge bases (both known and unknown) using customized criteria;
- better content navigation, made possible through the dynamic creation of new facets;
- integration with relational and geographic relevance maps which clearly display the links between the different elements.

Standard search systems use keyword technology and are therefore, limited in the management of large quantities of text because they are not able to "understand" the meaning of the content.

Keyword technology fails to solve several important problems, including:

- Common words with many meanings: The results for "Jaguar" are returned as an animal and a car. Users must manually sort one from the other.
- Different words with the same meaning: "Disability Legislation" and "Equal Opportunity Law" are basically the same concept. Users must know both to find both.
- Different words have related meanings: "company", "trade union" and "charity" are all types of "organizations". Users must be familiar with hierarchies in order to encompass the whole concept.

When more than 80% of the information useful for business is trapped in texts of various types (e.g. web sites, blogs, news feeds, emails, databases, etc.) these problems drain time and resources from everyday work.

How can you solve these problems and take advantage of all the knowledge that is available? The answer is semantics – the science of using human comprehension for machine understanding of text. This is the unique innovation at the core of Cogito Focus.

COGITO®

# Main functions of Cogito Focus

## Semantic Intelligent Agents

Cogito Focus uses a semantic crawler to filter incoming data. Users can also set predefined criteria (which can be updated at any time) to index documents from various internal or external sources.

## Semantic search

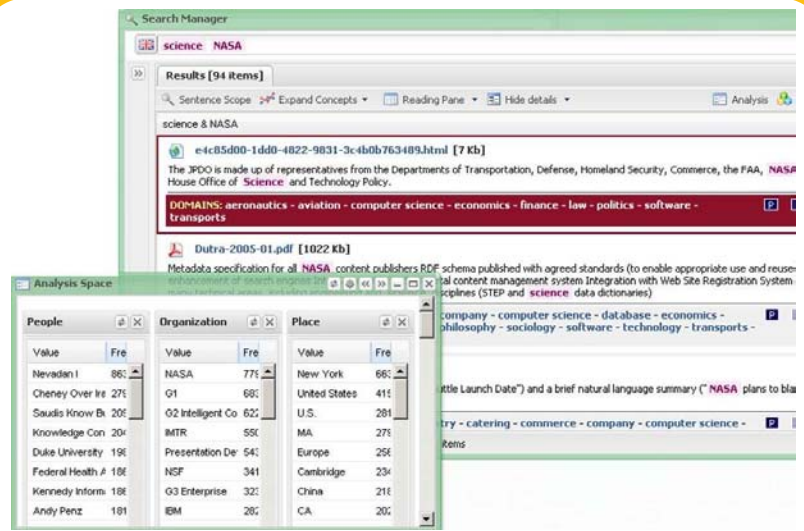
Searches are conducted by keywords as well as through conceptual logic (e.g. a search for *machine*, intended as car, will also find text about *motorcars, sedans, Fiat, Spider*; etc.)

## Extraction and correlation

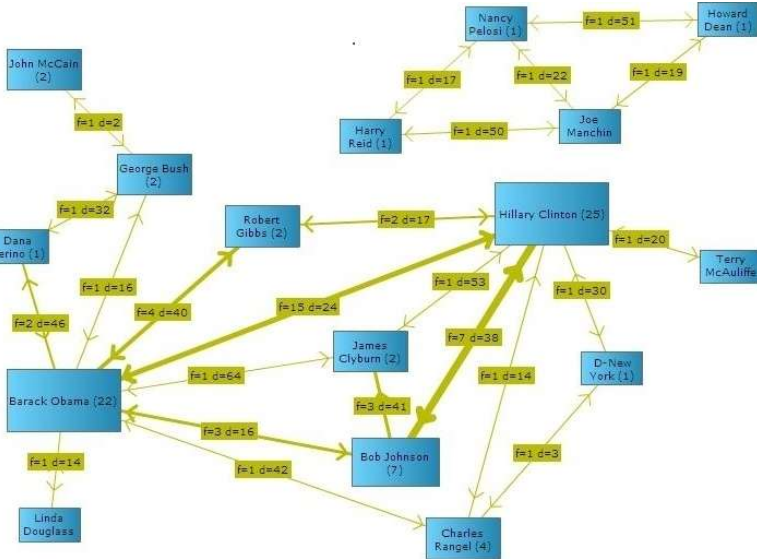
Extracts, normalizes and automatically associates specific metadata (people, companies, places, addresses, dates, amounts, etc.) from the analyzed texts, thus simplifying the search and highlighting all the relations (often unexpected) that link the elements contained in the documents.

## Analysis and interactive browsing via facets

Documents can be examined in an interactive way, even if the content is unknown beforehand. During the course of the analysis, new facets can be created based on the findings from the exploration of the data. In-depth analysis also provides the user with suggestions for following the steps of the search and the direct browsing feature provides new ideas for the search.



Here, Semantic Analysis show us how key decision makers are influenced by others. In this example, we can see that Bob Johnson influences Hillary Clinton and Robert Gibbs influences Barack Obama. These relations are indicated by the relative thickness of the connecting.



Semantic Analysis can show how key decision makers are influenced by others. In this examination we can see that Bob Johnson influences Hillary Clinton while Robert Gibbs influences Barack Obama. The thickness of the lines relative to other connections shows us this.

## Subject-action-object search

This powerful investigative tool works through the identification of the lexical elements and their logical role in a sentence (subject, action – verb, object). Searches become more effective as events are systematically identified.

For example, if the concept *government* is selected as a subject (government intended as political body), the system will display all of the verbs (e.g. *decide, proclaim, vote...*) and all of the direct objects (e.g. *laws, citizens, decree...*) that could potentially form sentences with the selected concept, so that the desired information can be reached immediately.

## Reporting

Includes a function for the automatic generation of reports (usually in HTML format for better readability). Its objective is to constantly monitor specific phenomena and provide a complete picture which is easy to understand.

## Visualization and integration with maps

The semantic functions are easily integrated into relational and geographically relevant maps which clearly display the relations between the entities.

## Expert System

Expert System is the leading provider of semantic software, which discovers, classifies and interprets text information. All Expert System products, which are based on the patent pending technology COGITO®, leverage the company's expertise in the development of business solutions for the primary markets (i.e. Automotive, Consumer Electronics, Oil & Gas, Media, Mobile, etc.) and support the activities of Knowledge Management, Customer Care, Corporate Intelligence and Homeland Security. Worldwide customers include Eni Group, Pirelli, Finmeccanica, ANSA, Telecom Italia, Microsoft, BNP Paribas, the Italian Ministry of Defense, and the Ministry of Interior Affairs.

www.expertsystem.net  
info@expertsystem.net

