

## Marketing & Competitive Intelligence

Innovative solutions to increase the value of strategic information

## Intelligence on open sources

Intelligence is commonly understood as a secret services related activity, but in reality true intelligence, as investigation of “useful information”, comes 95% of the time from open sources, freely available and consultable. This is the reason why it is technically referred as OSINT, Open Source INTElligence.

In the field of intelligence, innovation has worked at two levels:

- at one level the diffusion of inexpensive technical tools easily available to an increasing number of users has contributed to the exponential growth of the quantity of information available in all fields of social, economic and political life, promoted by;
- at another level the availability of powerful tools has extended the use of specific methodology through which intelligence gathers and processes information to a growing number of areas, spreading both the practice and culture of intelligence.

### The solutions for marketing/competitive intelligence

- easy and quick access to information
- correlation of apparently independent data
- constant monitoring of data coming from opens sources
- sentiment detection of brand/management and analysis of market and competitors
- automatic analysis of the flow of data

**Developing the capability to monitor the open sources is a key factor of competition**, provided that the information is quickly and consistently captured, and presented in a way that can be useful to support the process of business planning.

In this context of efficiency, intelligence on open sources can acquire a key role in the chain of value and in decisional and strategic processes.

It is therefore possible to acquire useful elements to evaluate:

- sentiment on management, company and products
- markets and competitors
- security, economical trends, etc.

## Surpass conventional systems with linguistic intelligence and semantic logic

The semantic approach, based on solutions for marketing and competitive intelligence by Expert System, optimizes the processing of unstructured information, guaranteeing an effective processing of the texts: from the integrated management of the whole wealth of information, through the identification of strategic data, to the search, automatic categorization, extraction of data and correlation, also in real-time, of relevant entities.

Unlike standard searching tools, based on keyword logic which is unable to process textual documents effectively or compare information coming from more than one source, the solutions by Expert System perform an accurate monitoring and filtering of the texts, regardless of their source, nature, type, format, filing method, etc.

### Monitoring and capturing strategic information, discovering hidden relations: COGITO® Intelligence

#### Advantages

- constant detection of the general sentiment level
- interactive analysis of the opinions expressed, and of their sources
- effective evaluation of perception of the company's public image

**COGITO® Intelligence** is an advanced solution consisting of different modules, used to perform in-depth analyses on all the potentially useful information.

### COGITO® Intelligence



COGITO® Intelligence combines highly customizable modules, to monitor specific information sources and find relations among the different documents available.

### Using the web to evaluate market trends

The proliferation of blogs, forums, newsgroups and articles published daily on the web has created a phenomenon for which anyone can circulate opinions and reach immediately more interlocutors than ever on a global basis.

With COGITO® Intelligence, the opinions of customers and competitors, but also of analysts and experts of the sector, can be analysed and used to support and improve the decision-making process.

The constant monitoring of the web, in fact, can process information on specific subjects (stock trends, politics, economical trends, information safety, etc.), to trace the success of new products and services on the market, to measure the approval rate of marketing campaigns, to identify possible areas of improvement, to conduct comparative analyses on the feedback of customers/consumers, on sector trends, on sales data as well as investments.

Let's look at some examples.

## Advantages

- gathering of information on competitors
- collection of essential data to evaluate new market strategies
- complete and updated researches on patents databases
- monitoring of the prices of products
- individuation of possible illegal channels of commercialization

## From sentiment monitoring...

Sensing the sentiment linked to its own brand, management, or product represents one of the most critical problems for any company.

COGITO® Intelligence offers the opportunity to search and monitor open sources and all available digital documents, and is a very valuable tool for security experts and for those who need to analyze the market and monitor public opinions on the company image.

The linguistic analysis and conceptual comprehension capability of COGITO® Intelligence enables quantitative evaluations of the general opinion on various topics.

Moreover, through the correlation of data gathered from the variety of sources, it is possible to produce a quick synthetic overview, to highlight graphically the trend of the sentiment for a reference period and/or for a specific source.

## To the analysis of markets and competitors...

In addition to being an effective marketing tool, OSINT techniques based on COGITO® Intelligence represent a system to effectively monitor market trends and the activities of competitors, to investigate patents databases, to check the prices at which products are sold and, in general, to sense general new trends.

■ Performing a specific control of the **competitors**, of their politics and statements, as well as of the trends concerning their business choices, can improve remarkably the company knowledge. In fact the competitors communicate the characteristics and values of their offers, the initiatives, the projects and events (for example a new board of directors, a partnership, a joint-venture, the launch of a product, etc.)

■ **Patents** are an important indicator of the competition results on technological innovation. Many specialized databases exist, but the sources are manifold and the quantity of information may be unmanageable for a company to process effectively. Expert System can implement powerful tools to investigate patents databanks, to maintain a constant control of specific areas by performing a continuous and reliable monitoring per inventor, owner, or subject of the patent.

The innovative characteristic of Expert System's applications is the great precision obtained with semantic search. Relying on an interactive consultation interface, it is possible to "investigate" also large databanks where the quantity of content is unknown.

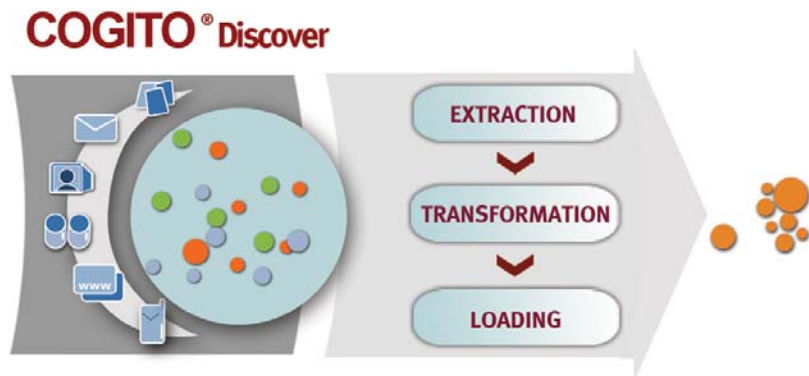
■ The constant monitoring on web sources of the **prices** at which the products - or the products of the competitors - are sold, represents an incredible opportunity to drive a company's business strategies.

No matter the market, national or foreign, through the constant analysis of the prices not only it is possible to obtain real-time and complete reports to control the politics of the resellers, but it is also possible to obtain an overview to plan more effective security measures, prevent eventual attacks, or even discover illegal channels of commercialization.

### Extraction and targeted selection of information: COGITO® Discover

**COGITO® Discover** supports the experts of intelligence and security in the selection of strategic information and in the identification of relevant correlations among seemingly unrelated data.

Through an accurate evaluation of large masses of documents, it cross-checks entities of different nature, extracting automatically relevant data (name of people, places, companies, products, etc.) to transform, normalize and load them in a uniform and structured data base, to be processed with standard business intelligence tools used inside the company.



#### Advantages

- automatic comprehension and evaluation of texts
- extraction of knowledge from documents
- individuation of "hidden" links
- classification of documents according to objective and specific taxonomies

### Automatic categorization of documents: COGITO® Categorizer

Starting from an accurate linguistic-semantic analysis, **COGITO® Categorizer** classifies in an automatic or semi-automatic way documents of any kind: texts available on the Intranet or coming from the outside, reports, manuals, articles, real-time news, SMS, e-mails, etc.

Combining objective rules (such as rules of the language or linked to specific domains or categories) with subjective criteria tuned to meet specific needs, COGITO® Categorizer supports the analysts in organizing knowledge (intellectual capital and information acquired from the outside), by performing automatically and quickly, the tasks that otherwise could not be carried out manually, or that would require large investments of time, money and human resources.

## COGITO® Language Technology

### Cogito® language technology ergo... Semantic Intelligence

COGITO®, the proprietary semantic platform of Expert System for effective knowledge management, is the result of hundreds of man years of research and development. From the research and extraction, to the analysis, classification and transformation of unstructured information, COGITO® is the most advanced technology available on the market because by leveraging semantic comprehension, it overcomes the more traditional approaches to the automatic processing of natural language. COGITO® is powered by Sensigrafo®, a comprehensive semantic network available in different languages enabling disambiguation of terms, the secret behind Semantic Intelligence.

- more than 3,500,000 connections (regarding contests, constructions, subjects and domains, idioms, phraseologies...)
- more than 600,000 semantic concepts
- more than 400,000 hyponymy and hyperonymy connections
- more than 55,000 hyperonymy and troponomy connections
- more than 370,000 connection for the corpus and tens of thousands of links among subjects, objects, meronyms...

#### Expert System S.p.A.

Via Virgilio 56/Q  
41100 Modena - Italy

phone: +39 059 894011  
fax: +39 059 894099

Via Machiavelli 47  
00185 Rome - Italy

[www.expertsystem.it](http://www.expertsystem.it)

[info@expertsystem.it](mailto:info@expertsystem.it)

**Expert System S.p.A.** is a global provider of advanced **Semantic Intelligence** software and solutions for enterprises and government agencies.

One of the few companies in the world to provide Microsoft with advanced technologies that are integrated in all its main products, Expert System makes **"intelligent" management of unstructured information** its core business.

