DATA-INTENSIVE ORGANIZATIONS
Transform Enterprise Data into Actionable Insight
Cognitive Computing: the Dawn of a New Era

The technologies to extract valuable insights from Big Data have considerably evolved over the last few years. For quite some time, they have included search, statistics and Natural Language Processing (NLP) to deal with structured and unstructured data. Now, Machine Learning (ML) algorithms are being used to “learn” more about the contents of Big Data. Systems “converse” more intelligently with users, providing a new kind of user experience. The combination of all these analytical and interactional approaches in one system or platform earns them the label “cognitive”.

Cognitive search and analytics platforms must come with extremely high performance, while safeguarding access rights of the data they draw insights from.

*Big Data remains ‘Big Noise’ without powerful Content Analytics to extract and visualize relevant information. The same is true for “Data Lakes”: without proper tools, finding information in a data lake is like fishing in troubled waters.*

The Data Challenge

An IDC study shows that users in a typical organization have to juggle with an average of 13 enterprise applications (e.g. ERP, CRM, SCM, BI, etc.) to get to relevant information. Adding to their pain, relevant information comes most often from outside these business applications, from internal and external documents and publications, but also from emails and Social Networks, two data sources with exponential growth.

“Up to 90% of enterprise data is unstructured.”

David Schubmehl, IDC

Provide Relevant Insight at the Right Time

In order to respond to this challenge, Sinequa provides a cognitively enabled Real-Time Search & Analytics platform to deal with Big Data. This platform combines a unique blend of technologies: a powerful multilingual search engine, deep content analytics including Machine Learning algorithms, high performance, out-of-the-box connectivity to more than 180 data sources, including the most common enterprise applications. It helps organizations get business-relevant information and insight out of vast amounts of most heterogeneous data.
Its capacity to structure, categorize, and enrich data in a logical data warehouse makes it an ideal platform for Search Based Applications (SBA) or InfoApps. SBA can be tailored to fit the work environment of users and usually offer the highest ROI.

**Extreme Scalability – High Performance – Deep Analytics**

The Sinequa platform copes with extremely high volumes of structured and unstructured data – while maintaining deep analytical capacities. Natural Language Processing (NLP) covers more than 20 languages spoken by 95% of the world’s population.

The analyses of structured and unstructured data are used to mutually refine each other. Machine Learning algorithms implemented on Spark offer collaborative filtering and recommendations, classification by example, clustering and similarity calculations, and predictive analysis. They help provide ever more relevant insights for users and their peer groups.

The integration of image, video, and audio analyses considerably enlarges the analytic scope of the Sinequa platform. The integration of speech recognition makes the user interface (more) “conversational”.

**Strong ROI across Data-Driven Verticals and Use Cases**

The range of possible business solutions on the Sinequa platform is infinite, just as the number of applications on top of a relational database. While Search Based Applications (SBA) or InfoApps can be produced for just about any business issue at hand, we illustrate here two widespread use cases and industry solutions:

**360° View of the Customer**

Customer data is often spread over many business applications, sometimes hundreds of them. In customer-facing situations, such as in call centers or branch offices of a bank, this makes it impossible to provide an employee with an instant 360° view of the customer on the phone or in front of them. Nevertheless, rapid, well informed and competent action is required to improve customer service and satisfaction while reducing service costs.

Sinequa pulls together all relevant customer information, no matter where and in what format it is stored, and provides a structured overview in less than 2 seconds to the customer-facing person – even in call centers with thousands of concurrent users.

This cuts thousands of person-weeks per year off the training time needed to familiarize employees with a whole range of enterprise applications. In call centers, it shortens average call time, while improving customer satisfaction, cross-selling and up-selling.

One of our customers achieved an ROI of about 60 million Euros over three years with a project delivering a 360° customer view to 10,000 call center agents.

“In a matter of weeks, we already could see the difference that Sinequa makes. With more relevant information delivered more rapidly, Sinequa saves employee time and enables us to leverage one of our greatest assets: our unmatched intellectual capital.”

Haroon Suleman, Lead Enterprise Search Architect, Mercer Ltd.

**Expert Networks**

Most large enterprises are challenged when it comes to rapidly finding the best available experts on a given subject. They cannot rely on self-declared expertise in user profiles of their Enterprise Social Network, too often out of date, incomplete or exaggerated. Finding the true experts requires looking at their work: publications, project reports, patent filings, HR data and schedules, Enterprise Social Media content, emails, etc. Of course, the analysis of this work requires Natural Language Processing (NLP) capacities to “understand” what topics people have written about, rather than simply searching for keywords. Machine Learning (ML) algorithms help find similar user profiles and similar contents, increasing the precision of expert discovery and ranking.
Revealing implicit expert networks also helps putting people into contact with one another – people who should know each other and pool their knowledge. This helps companies speed up innovation and reduce time to market for new products.

**Use Cases in Vertical Industries**

Sinequa customers and partners have implemented most innovative use cases across many industries. Quite a few of them can be transposed to other industries. Be inspired!

**Sinequa for Life Sciences**

Sinequa works with a number of top tier Biopharmaceutical customers, such as AstraZeneca, Biogen, BMS and UCB.

Use cases range from finding the top experts and available knowledge on a given subject via optimizing clinical trials to subscribing to topical news and even to streamlining authorization processes on mobile devices.

The speed of implementation of the first use cases at AstraZeneca set new standards in IT agility.

**Sinequa for Defense and Security**

Sinequa helps Defense and Security agencies transform intelligence data into actionable insights. Agencies monitor social media interactions, detect money laundering, fraud & terrorist financing; they identify & correlate threats & cyberattacks, solve crime cases with powerful search capabilities.

**Sinequa for Finance**

Sinequa helps customers gain insight by analyzing, structuring and categorizing all available data across numerous banking applications. Obtain instant 360° views on customers, portfolios, investment targets, contracts, financial performance, etc.

**Sinequa for Service Companies**

Atos, a leading European IT consulting and services company (100,000 people), rely on Sinequa for their expert staffing application. They can now build a global project team within hours rather than weeks. Rapid verification of available expertise allows them to confidently respond to RFPs where they could not have met deadlines before.

**About Sinequa**

Sinequa is an independent software vendor providing a cognitive search and analytics platform for Global 2000 companies and government agencies. Combining search with advanced Natural Language Processing (NLP), Machine Learning and Deep Learning algorithms, the solution extracts insight from both structured and unstructured data for users in their work context. Sinequa has been recognized as a leader in both the Gartner 2017 Magic Quadrant for Insight Engines and the Forrester Wave™: Cognitive Search & Knowledge Discovery Solutions Q2 2017. Sinequa develops its expertise and its business around the world with a broad network of technology and business partners. For more information, www.sinequa.com.