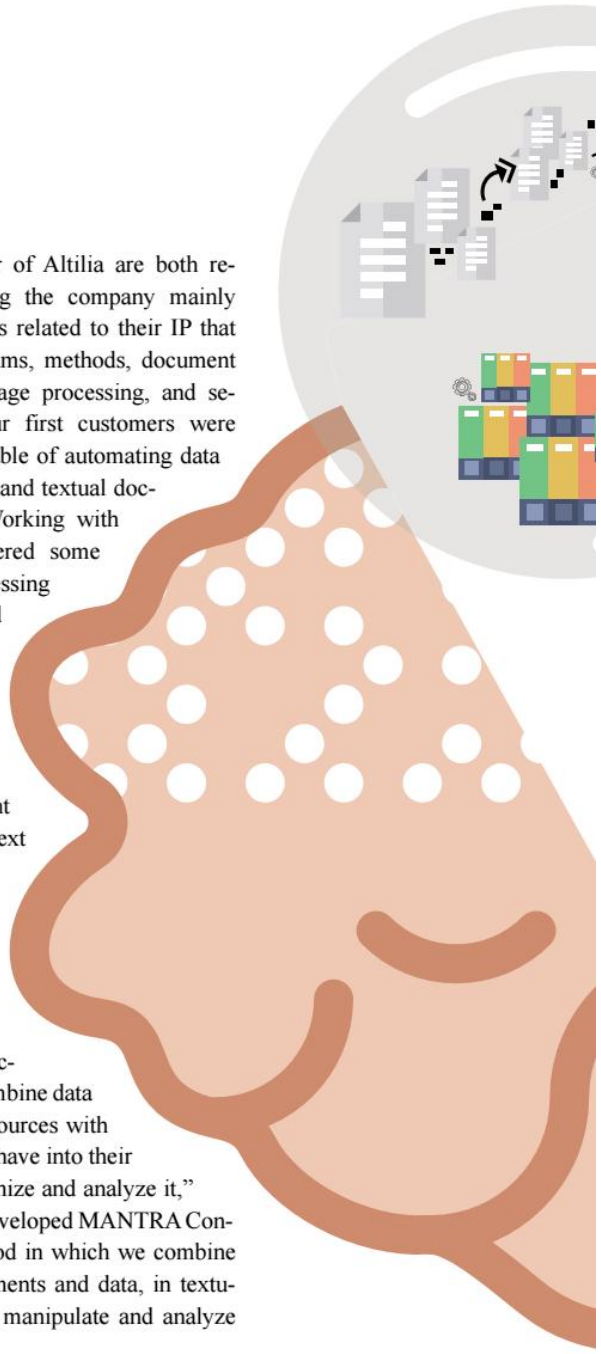
Altilia: Making Sense of Big Data



Today organizations are looking for easier ways to generate business insights through the complex data sets with more flexibility. But simply managing the diversity and volumes of data—that need to be joined, consolidated, moved and analyzed—is not enough. CIOs of the world's largest organizations are constantly subjected to a barrage of contradictory messages about how big data technologies can help in leveraging large amount of data to better drive business processes, improve decision making and optimize operations. For example, a lot of firms present big data technologies as a way to better store heterogeneous big data into efficient data lakes; others present big data technologies as a sort of magic tools that extract meaningful insights from large amount of heterogeneous data and documents. "In our experience, the main challenge that CIOs have to face is how they can concretely simplify data management and analysis processes that drive to make sense of data available into company databases," says Massimo Ruffolo, Founder and CEO, Altilia. "We face these challenges by MANTRA Smart Data Platform, a single integrated modular hybrid-cloud platform that enables to deal with data heterogeneity, leverage internal and external data sources, make sense of unstructured data, and benefit from machine intelligence capabilities." Altilia offers—in a single integrated platform—webcrawling, wrapping, and scraping capabilities, semantic text analytics, data manipulation capabilities, data analytics, data visualization and exploration.

Birth of Contextual Workflow

Altilia was born as a spin-off of the Italian National Research Council (CNR) where Ruffolo and Ermelinda Oro, Co-founder of Altilia are both researchers. At the beginning the company mainly developed software products related to their IP that falls in the area of algorithms, methods, document data capture, natural language processing, and semantic text analytics. "Our first customers were firms looking for tools capable of automating data acquisition from web pages and textual documents," adds Ruffolo. "Working with real customers we discovered some fundamental needs—processing huge amount of unstructured information spread on both the enterprise systems and the Web." Hence, the company had to implement large scale web information extraction, document data capture, and semantic text analytics algorithms in a very scalable infrastructure built on the Hadoop stack. "But, customers don't need only the ability to capture data from external sources and give it a structured form. They need to combine data coming from unstructured sources with structured data they already have into their databases in order to harmonize and analyze it," explains Ruffolo. "So, we developed MANTRA Contextual Workflow, the method in which we combine the ability to process documents and data, in textual form, with the ability to manipulate and analyze structured data."

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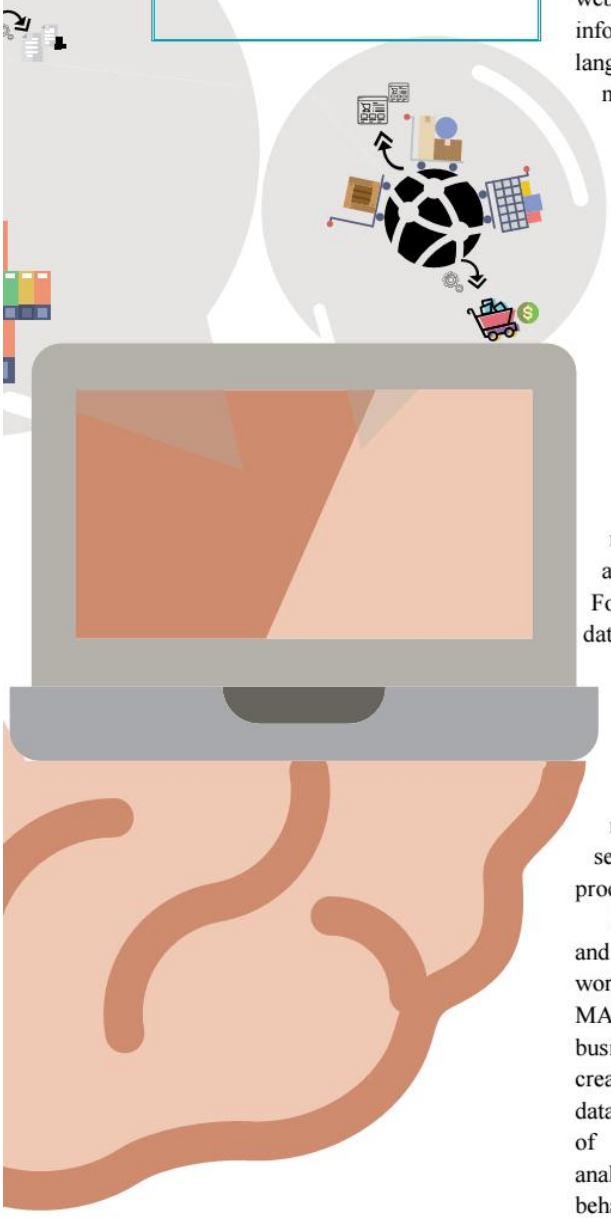

Turning Big Data into Smart Data

MANTRA Smart Data Platform is a revolutionary technology that offers–in integrated way–different modules, each aiming at providing specific features. The MANTRA Smart Data Capture module incorporates large-scale information extraction capabilities that use semantic and artificial intelligence methods to locate, recognize, and extract data from web sites and documents, and when information is expressed in natural language. MANTRA Smart Data Stream module employs advanced algorithms to ingest data streams from real-time sources, store data streams and/or process them in-memory and real-time.

The company's MANTRA Smart Data Harmonization/Fusion module is based on an innovative contextual workflow method where each task of the workflow is a MANTRA APP that enables to easily apply complex and advanced in-memory data manipulation methods. Developers and analysts may avoid writing code because applications can be visually created. For example, to define a complex data manipulation and harmonization application the user has to visually combine MANTRA APPs into contextual workflows. Lastly, MANTRA Smart Data Cognition module incorporates advanced natural language processing and semantic capabilities that enable to process textual content.

For example, e-commerce operators, and in particular one of the most important worldwide online fashion retailers, use MANTRA Smart Data Platform for business analytics scopes. The clients create holistic customer profiles and data hub gathering data from a plethora of sources like: web site logs and analytics tools for shopper navigational behavior and product exploration data.

Massimo Ruffolo, Founder & CEO

MANTRA Smart Data Platform provides a holistic 360 degree view of the shoppers along with the possibility to identify each customer on multiple channels, touch points through single integrated platform which can perform business analytics activities.

The Holistic Solution

Altilia tackles its competition by continuously innovating and enriching features of the MANTRA Smart Data Platform, and protecting its IP. "We do that along two main directions, by adding new features obtained via R&D laboratories, and providing off-the-shelf MANTRA APPs that capitalize the experience acquired with each customer embedding the domain knowledge required to answer specific use cases," adds Ruffolo.

The company will be releasing the next version of MANTRA Smart Data Platform by the end of 2016, with improved capabilities and features. Most important innovations, in the new release of MANTRA, will impact on the ability to easily train and reuse machine intelligence models also involving textual contents. "Currently we are empowering our sales and marketing area and building strategic alliances with key VARs and System Integrators to improve our growth rate and market visibility," concludes Ruffolo. CR