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SOLUTION OVERVIEW

OpenText Magellan for unstructured data

A fast, powerful, innovative way to find the value hidden in unstructured data, including documents and social media feeds

Mine valuable information from unstructured data

Gain insights into consumer sentiment and other hard-to-spot patterns

Benefit from machine learning that continually adapts to new topics and use cases

Integrate with OpenText EIM solutions

Structured data, such as numbers and labels, fit nicely in databases but don't deliver a full understanding of a business process. Valuable patterns and insights are contained in unstructured data, such as emails, memos, customer service chats, social media streams and news articles. In fact, by some estimates, nearly 80 percent of all enterprise information is unstructured data.[1]

Ordinary analytics techniques cannot interpret the complexity and nuances of human language, especially at large scales and at high speed. Specialized artificial intelligence (AI) algorithms can mimic human insight, but they generally require data science expertise. Then those results must be combined with structured data analysis and delivered in a format that is easy to navigate, understand and share.

OpenText™ Magellan™ steps in to bridge the gap between structured and unstructured data. The flexible, AI-powered analytics platform combines open-source machine learning with advanced analytics, enterprise-grade business intelligence (BI) and the ability to acquire, merge, manage, analyze and visualize big data and big content stored in any Enterprise Information Management (EIM) system. Magellan enables machine-assisted decision-making, automation and business optimization.

Stats Source:

1 TechRepublic, Unstructured Data: A Cheat Sheet (2017)

https://www.techrepublic.com/article/unstructured-data-the-smart-persons-guide/

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Magellan includes the following components:

OpenText™ Magellan™ BI & Reporting

- Analyzes data and visualizes it in a wide range of convenient report and dashboard formats

OpenText™ Magellan™ Data Discovery

- Enables sophisticated predictive analytics

OpenText™ Magellan™ Text Mining

- Extracts names, places, items and concepts from natural language and analyzes subjectivity and sentiment

OpenText™ Magellan™ Analytics Designer

- Blends and explores data, then designs reports that can be conveniently shared or embedded

Jupyter™ Notebook

- Creates and shares the code, equations, visualizations and explanatory text that make up custom machine learning models and data processing routines
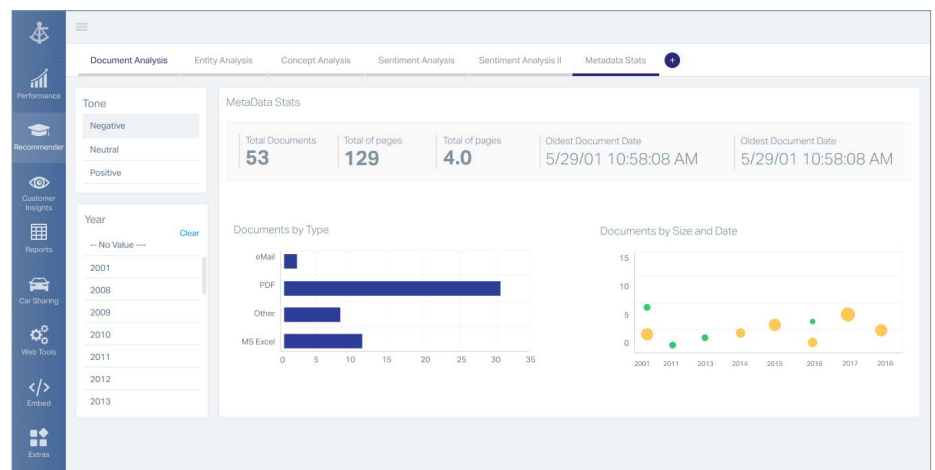
Apache Spark™

- Performs open-source big data processing with built-in machine learning libraries

The OpenText™ Magellan™ Text Mining module draws on OpenText's deep expertise in text mining, sentiment analysis, and emotion analysis, as well as the strengths of other analytics modules within Magellan. An advanced, multilingual solution with a powerful API, Magellan easily embeds into any business application, allowing even everyday users to perform unstructured data analysis in a visual, interactive format. Users can easily navigate, search and discover correlations, federate these insights with existing structured data and make predictions about products, topics, events, trends and even themes and emotions.
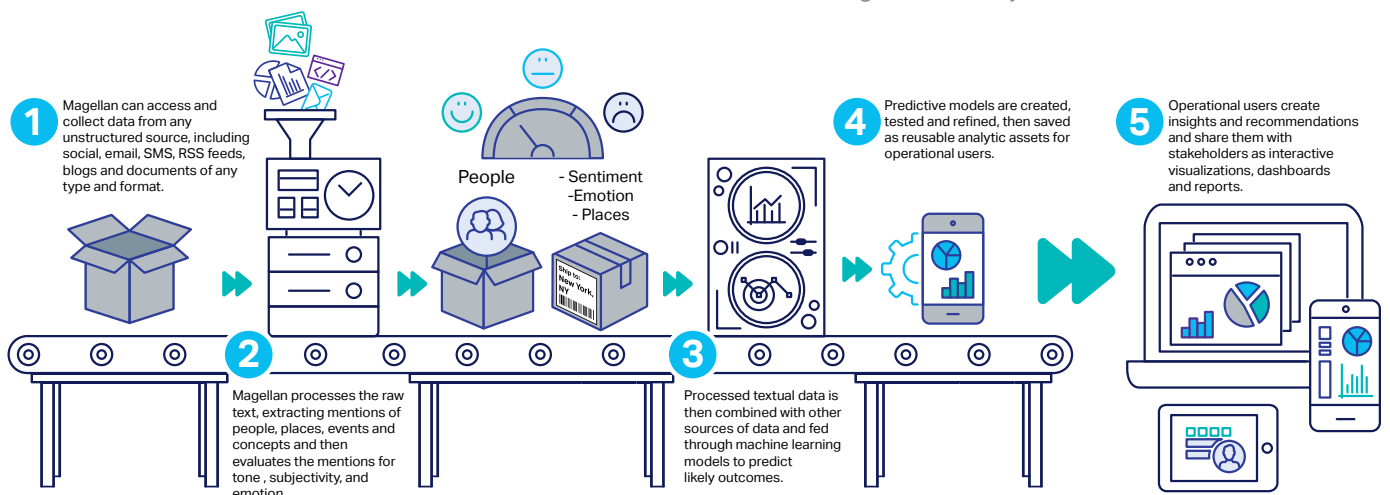
Magellan offers a practical, cost-effective, quickly implemented analytics solution that derives meaning from large quantities of text. Organizations can easily combine their structured and unstructured data to gain new insights, streamline repetitive processes and make smarter decisions.

Mine valuable information

Magellan is built on a robust framework that can digest vast amounts of data and bring it within the scope of regular users, without having to call in data scientists for every new query. Users can interactively scrutinize a single document or compare it to a broad set of text sources based on mentions across topics, history, geography or opinion trends.
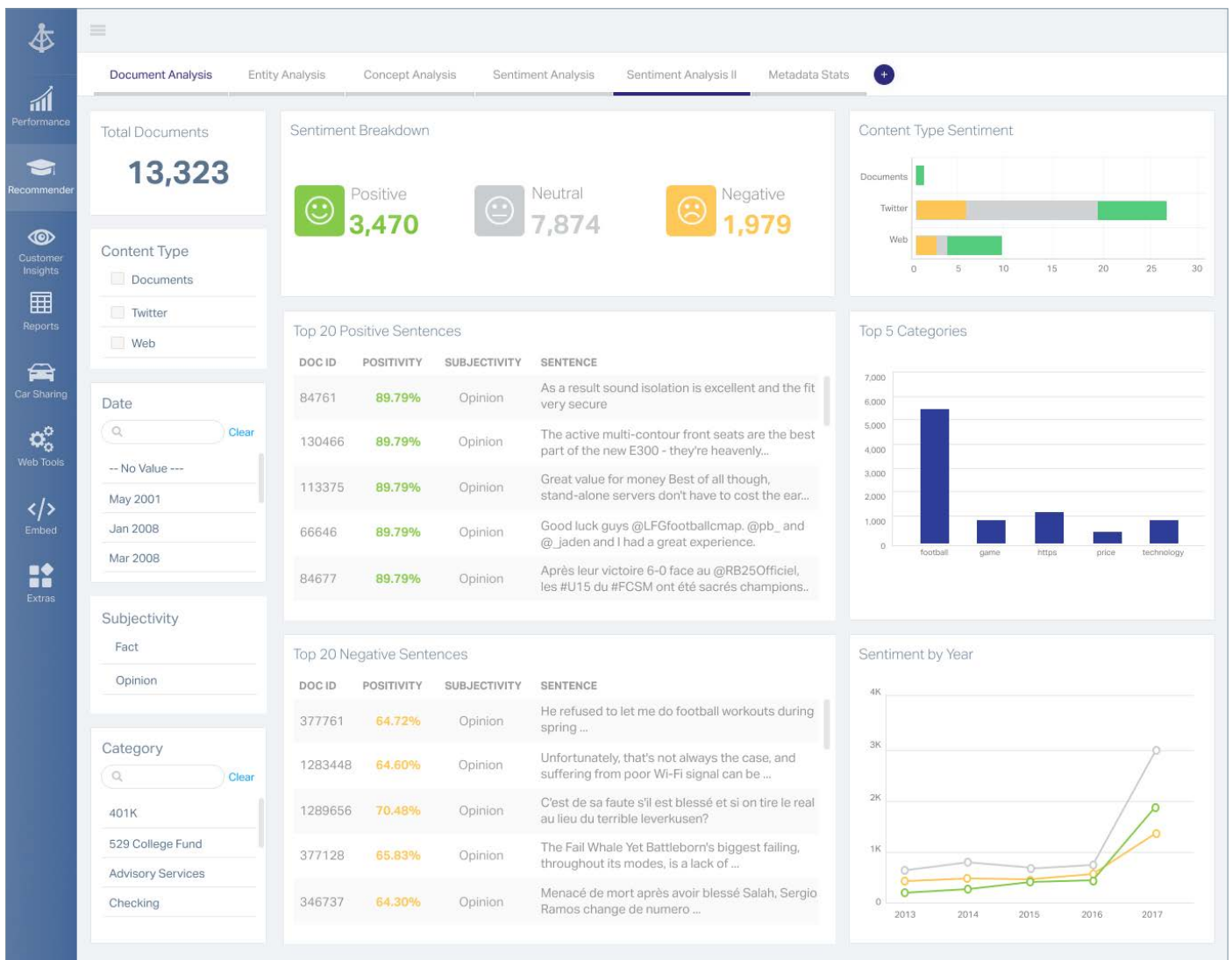

Magellan Text Mining provides a simple, appealing user interface to view and configure text analytics.

1 Magellan can access and collect data from any unstructured source, including social, email, SMS, RSS feeds, blogs and documents of any type and format.

2 Magellan processes the raw text, extracting mentions of people, places, events and concepts and then evaluates the mentions for tone , subjectivity, and emotion.

3 Processed textual data is then combined with other sources of data and fed through machine learning models to predict likely outcomes.

4 Predictive models are created, tested and refined, then saved as reusable analytic assets for operational users.

5 Operational users create insights and recommendations and share them with stakeholders as interactive visualizations, dashboards and reports.

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Gain unique insights

Human intuition works for skimming pages, conversations, phone messages and texts to "get a feel" for what they are saying and to spot patterns. But it cannot keep up with the billions of words emerging every hour from enterprise software, email, news and social media. And most traditional analytics and BI can only analyze structured, numerical data. Magellan's freshly designed user interface provides an appealing, user-friendly dashboard to view and configure text mining operations. This allows users to see what customers, citizens or employees are saying and which comments are the most typical or relevant.

For example, what happens after a customer makes a controversial remark about a product? What is the media reaction to a major world event? How has a given issue gained or lost importance over time? Magellan visualizes these insights in realtime with a variety of appealing, colorful graphics, from scatterplots to word clouds.

Magellan Text Mining's AI-powered analytics can classify documents by the emotion, tone, and subjectivity, then visualize these findings in intuitive, user-friendly ways.

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OpenText Magellan at work	
Voice of the customer	• Analyze the text of user interactions and comments to gauge consumer or citizen sentiment, anticipate reactions, improve customer service and drive product development
Smart product recommendations	• Identify and segment customers in realtime to more accurately target offers, leading to stronger sales, greater satisfaction and higher profits
Expedited paperwork processing	• Distinguish routine cases that can be automatically processed from problematic ones requiring human judgment and reduce the cost and administrative burden of processing claims or submitting government paperwork, improving service and regulatory compliance
Streamlined content migration	• More effectively organize, migrate and govern all data within an enterprise (not just from structured sources) and manage the digital ecosystem more efficiently, with more tools to gauge and enforce data governance

Benefit from machine learning

Magellan is based on machine learning libraries in the open source MLlib framework, which help the solution continually improve its "judgment" about anything from street and city addresses or financial figures to complex biomedical terms, allowing quick adaptation to new topics and use cases.

Integrate easily with OpenText EIM solutions

Equipped with a range of popular APIs, Magellan's text mining capabilities integrate smoothly with other OpenText solutions for content management, eDiscovery, workforce optimization, B2B integration and more. Smart content capture can streamline expense requests or insurance claims processing and predictive content migration can help users stay on top of legal mandates for document retention or destruction. Users can quickly get up to speed with language-aware asset performance optimization, which not only notes when components might fail but guides users to the relevant passages in manuals for the related parts.

Unlike other tools that rely on metadata, which can be unreliable or artificially manipulated, the Magellan Text Mining module uses natural language processing (NLP) and statistical methods to dig deep into any unstructured content source, familiarizing itself with terms and quickly starting to identify important names (of people, places and things) and subjects.

It can then categorize these terms, identify key concepts and topics, pick out patterns and use sentiment and emotion analysis to determine a statement's subjectivity (positive, negative or neutral), tone (whether it is intended as opinion or fact), and if it expresses specific emotions (anticipation, anger, disgust, fear, joy, sadness, surprise, and trust).

Findings from the unstructured data can then be federated with structured data to provide valuable context, such as combining brand reactions and associations from Twitter or Facebook with product launch campaign results from a CRM application to give unparalleled insight into the success of a launch.

Magellan Text Mining supports Arabic, Chinese, Dutch, English, French, German, Hebrew, Italian, Japanese, Portuguese, and Spanish with dedicated natural language processing and one or more available annotators out of the box. It also offers basic concept and named entity extraction in 25 additional languages, such as Russian or Persian.

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Why Magellan?

This easy-to-use, pre-integrated cognitive computing platform bundles components for advanced analytics, machine learning, data modeling and preparation and enterprise-grade BI into a single infrastructure.

Because it is built on an open-source foundation including Apache Spark™ and Jupyter™ Notebook, Magellan lets users take advantage of the flexibility, extensibility and diversity of an open product stack while maintaining full ownership of data and algorithms. Its robust, highly scalable infrastructure is perfect for supporting big content use cases—and Magellan makes it easy.

Once set up, its self-service visual interface empowers non-technical users to apply sophisticated algorithms and act on the insights they find. Magellan dramatically reduces the time, effort and expertise necessary to implement the technologies required for AI-powered analytics, relieving organizations of dealing with installation and integration headaches, so they can immediately focus on what is important—analyzing their valuable data.

About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on-premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit: **opentext.com**.

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