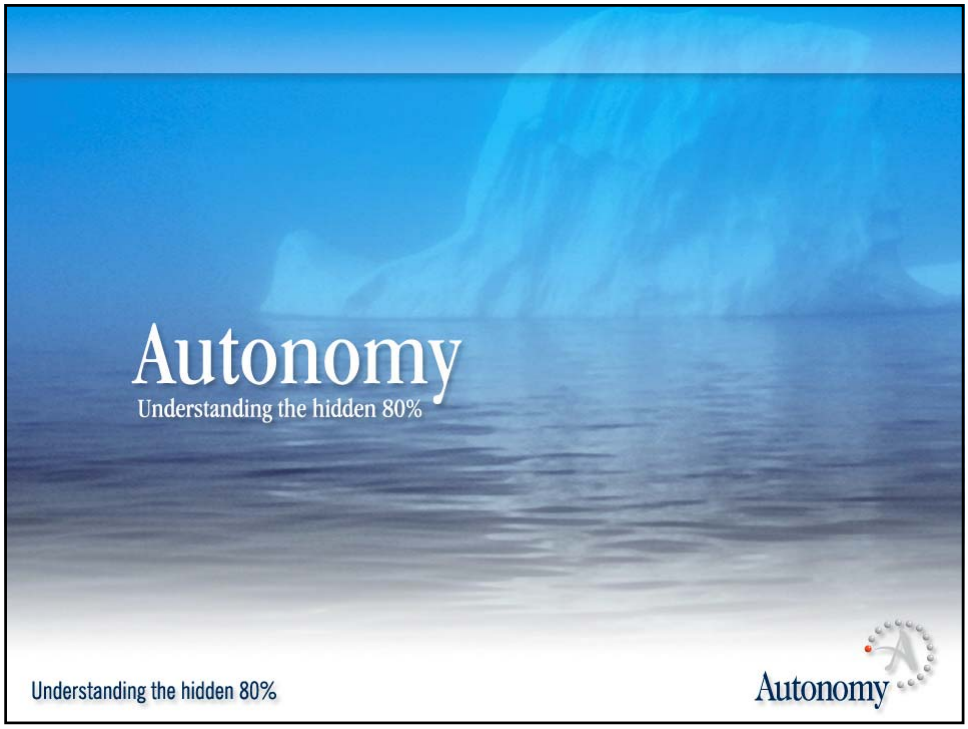


A Global Software Company

Autonomy
Understanding the hidden 80%

- *Founded in June 1996*
- *Public on London Stock Exchange - Nov 2000*
- *Dual HQ: San Francisco USA, Cambridge UK*
- *Worldwide presence*
  Washington DC, Paris, Rome, Milan, Hamburg, Munich, Oslo, Zurich, Stockholm, London, Singapore, Beijing, Taiwan, Sydney, Madrid, Atlanta, Boston, New York, Chicago, Houston, Tokyo….

Financially Strong:

- ***$1.5 Bn Market Cap***

- *16,000 + customers*
- *300+ OEM partners*
- *350+ VARs and Integrators*
- *Market share leader for High End Inf. Processing*

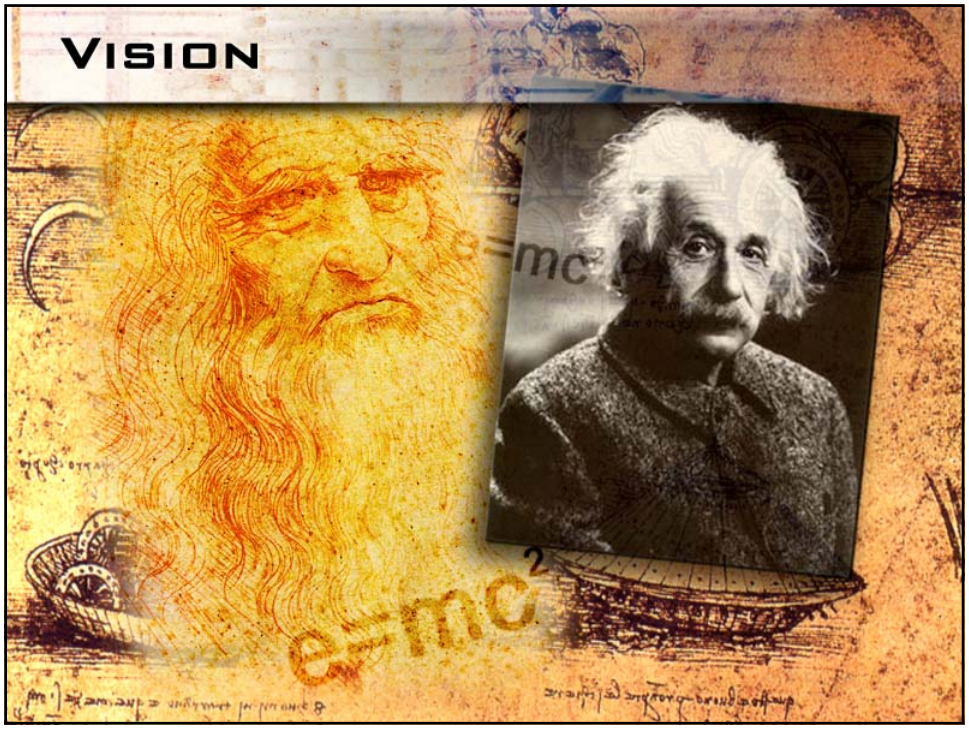
"Autonomy has been the most quickly growing business among the four publicly traded companies in the Industry"

New Perspectives on Enterprise Search Report – Delphi, 2005

Understanding the hidden 80%

Autonomy

POLICE CHIEF GAGS THE RIPPER SQUAD
cosy home
had ready
the Ripper
By MARTIN SHARPE
THE POLICE team that caught the Yorkshire Ripper has been gagged, it was revealed yesterday.
'Don't talk' shock on eve of trial
The hunter . . . George Oldfield yesterday
Return of the Ripper hunter
Dear officer,


VISION
E=mc²

VISION AND REALITY

Barbie

Autonomy
Understanding the hidden 80%

- ‘Physical connection’ — Network
- Structured data structures… — Databases
- Unstructured data… — email….
- Format: — Microsoft, Oracle….
- Type: — Text Audio Video Geo
- Language: — English, Chinese
- Concepts: — Dog, hound, mutt
- Interpretation: — Palestine/Israel
- Security and Ownership: — CIA, Coast guard

Understanding the hidden 80%

Autonomy

The Conceptual Problem

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Understanding the hidden 80%

*Sex :M * Pet: Canine *Relationship: Owner

“Bloke with a dog”

“Some guy with a Labrador”

“A boy with a golden retriever”

“Teenager with a puppy”

“A Man with a guide dog”

“Un Homme avec un chien”

“A Van driver exercising his pet”

Understanding the hidden 80%

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Understanding + Automation Removes Manual Processes

Autonomy
Understanding the hidden 80%

- Notes
- Database
- Document Management
- News Feeds
- Email
- Internet
- Files
- XML
- Audio/ Media

$$H = -\Sigma p_i . \log_2 (p_i)$$

Information Theory and Bayesian Inference

$$P(\theta \mid x) = \frac{P(x \mid \theta) . P(\theta)}{\Sigma_{\theta' \in \Theta} P(x \mid \theta') . P(\theta')}$$

Integration Through Understanding

Process Automation

- Aggregation
- Automatic categorization
- Hyperlinking
- Profiling
- Personalization
- Collaboration
- Delivery
- Retrieval
- Routing
- Alerting

Understanding the hidden 80%

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Example Functions

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Understanding the hidden 80%

- Automatic categorization
- Clustering
- Profiling
- Personalization
- Alerting
- Hyperlinking
- Retrieval

- **Retrieval** - Natural language, concept matching, full legacy Boolean, metadata and XML, distributed and federated, refine by example, combinational, cross-lingual, user feedback, results weighting, parametric
- **Taxonomies** - Fully hierarchical and relational, dynamic, individualized, trainable and editable by example or legacy methods
- **Clustering** - Ability to take information, phone calls or people and cluster them automatically into related groups
- **Profiling** - Employees' profiles can be automatically matched and connected for collaboration creating centers of expertise
- **Personalization** - Fully granular, automatic and individual personalization, configurable by users or administrator
- **Alerting** – Accurate, scalable, proactive alerting. Avoiding problems of keyword systems. Implicit or explicit alert subject setting
- **Hyperlinking** - Fully automatic hyperlink generation across data types

Understanding the hidden 80%

Autonomy

US Fight Against Terror

Autonomy
Understanding the hidden 80%

Anti-Terrorist Information Infrastructure

Autonomy powers the core information infrastructure that enables 200,000 employees of the 21 Agencies dedicated to fighting terrorism in US territories to:

- Automatically aggregate, analyze, route and retrieve critical information
- Monitor suspicious and potentially dangerous activity
- React faster and with greater insight
- Consolidate and leverage expertise

"We can't leave any stones unturned when it comes to finding the right mix of information and getting it into the right hands."

Dr. Nathaniel S. Heiner, Chief Knowledge Officer of the US Coast Guard in the New York Times, October 21, 2002

Understanding the hidden 80%

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Signal Monitoring

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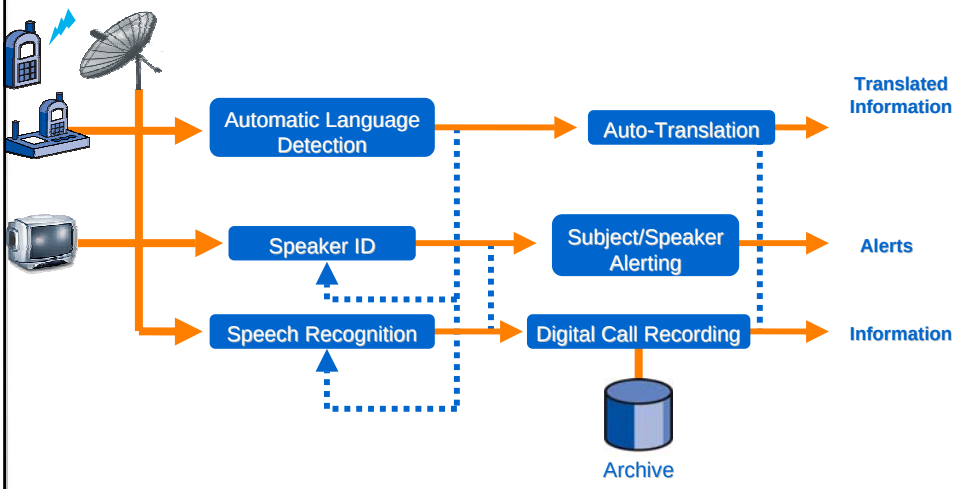

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Data Fusion

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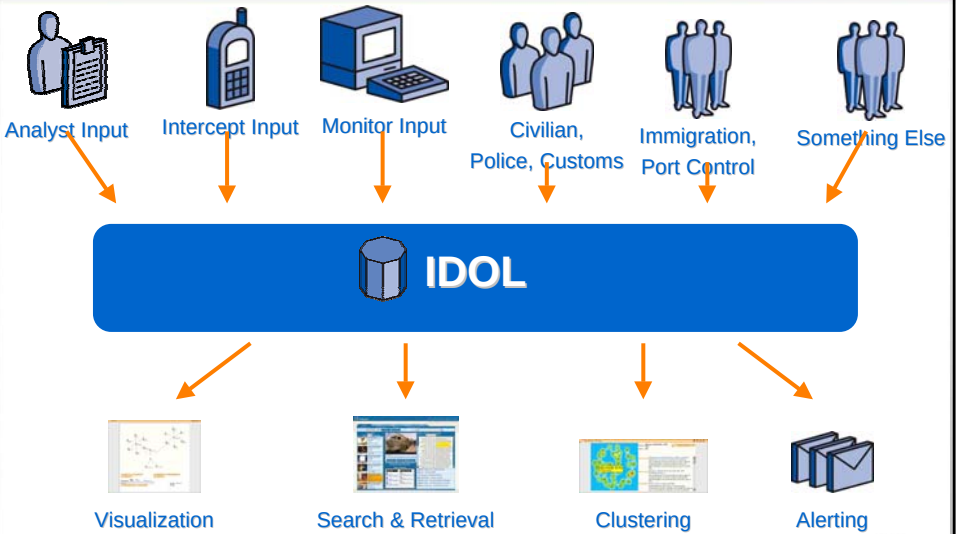

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Automatic Data Clustering

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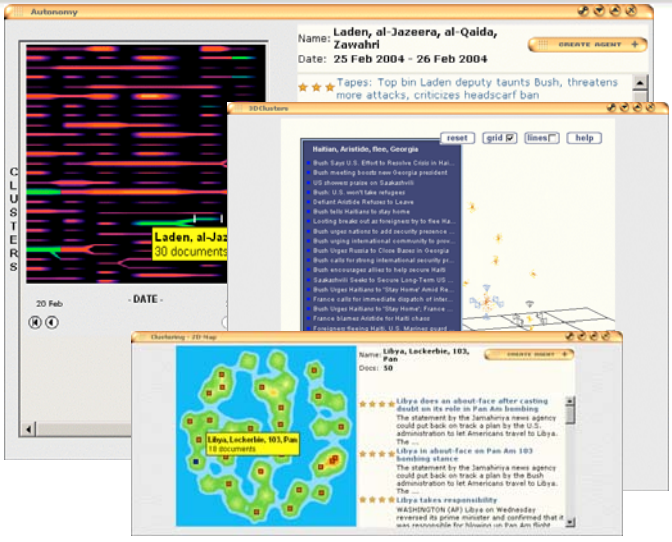

Understanding the hidden 80%

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Real-Time Monitoring

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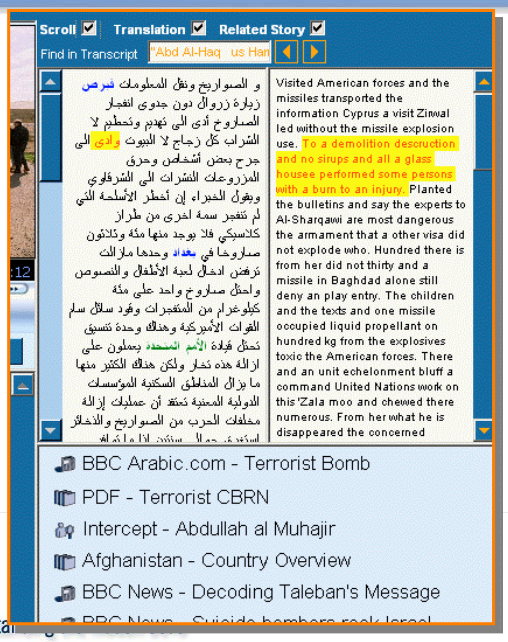

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Investigative Visualization

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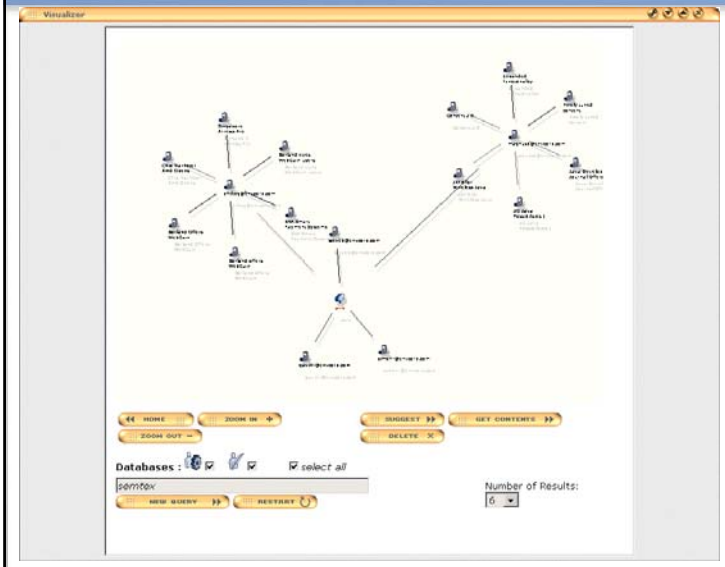
Understanding the hidden 80%



Understanding the hidden 80%

Autonomy

NPSA

Autonomy
Understanding the hidden 80%

Promoting best practice, protecting patient safety

NHS
National Patient Safety Agency

Objectives:

- To provide the necessary IT infrastructure to power the analysis behind its advanced incident reporting system the National Reporting and Learning System (NRLS).

Solution:

- Autonomy IDOL with full functionality selected to dramatically increase the Agency's effectiveness by automatically aggregating and clustering over 1.2 million incident reports from NHS organisations across England and Wales. The system offers NPSA analysts an unprecedented level of visibility into the types and frequency of Patient Safety Incidents by automatically forming a conceptual and contextual understanding of reports from over 600 NHS organizations.

Benefits:

- Analysts are able to identify trends in incidents and take positive action to safeguard patient safety and encourage best practice. The system enables the NHS to learn from previous errors and systems failures and consequently reduce the number of safety incidents.

Understanding the hidden 80%

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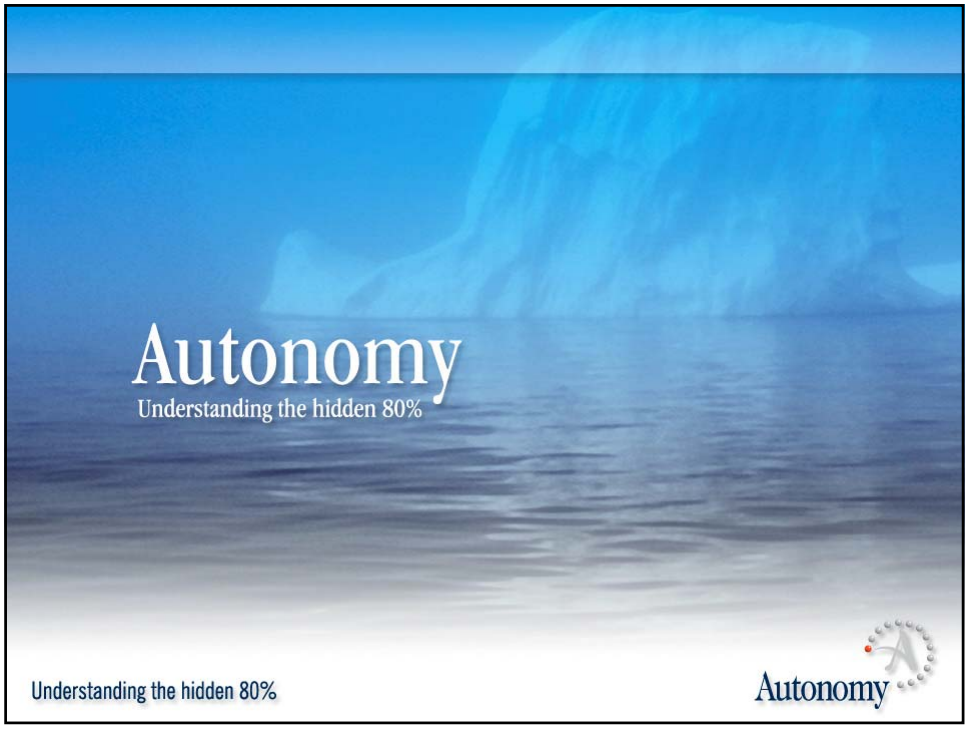
Autonomy
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