

From Discovery to Delivery

Mainstream applications of semantic content enrichment in the Enterprise

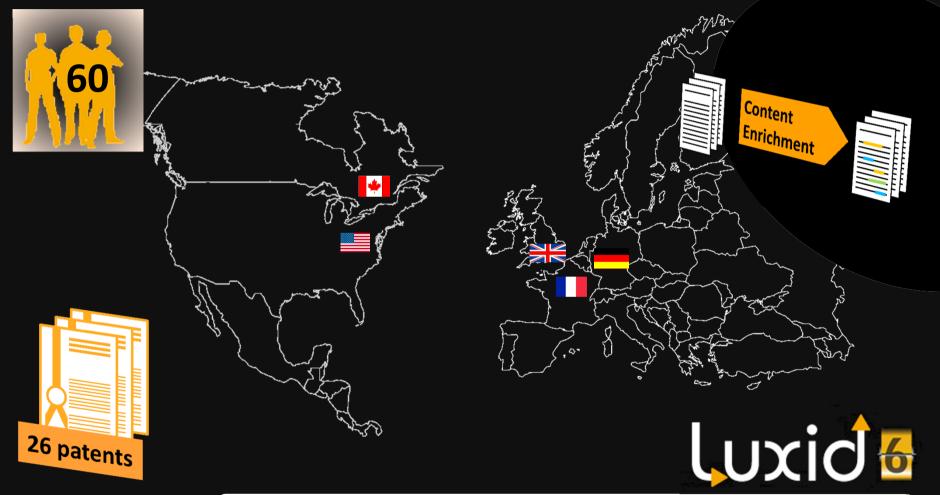
Daniel Mayer

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Agenda

- Corporate Overview
- Semantic Content Enrichment in brief
- Value Proposition & Use Cases
- Luxid® for ECM
- Conclusion

TEMIS A pioneer in Content Enrichment since 2000













Key References

Life Sciences



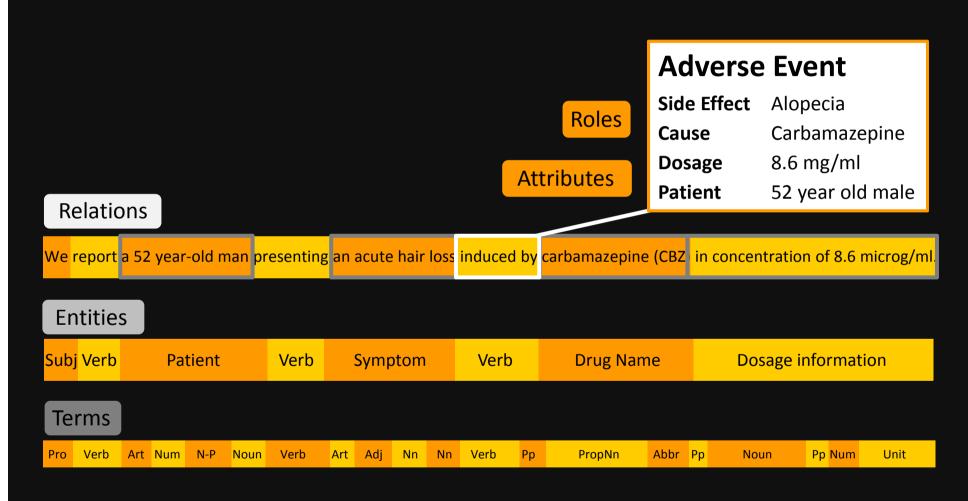
Industry & Government



Publishing



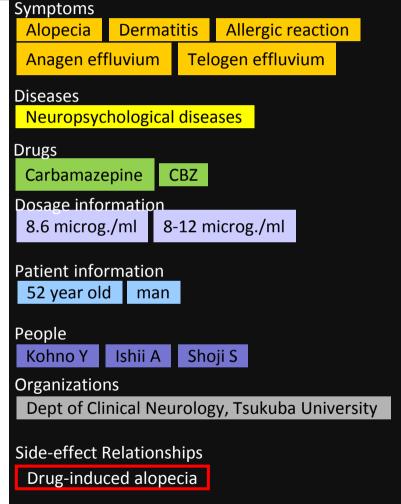
What Is Semantic Content Enrichment? Automated extraction of information



We report a 52 year-old man presenting an acute hair loss induced by carbamazepine (CBZ) in concentration of 8.6 microg/ml.

What Is Semantic Content Enrichment? Annotation with domain-specific metadata

A case of hair loss induced by carbamazepine Kohno Y, Ishii A, Shoji S, Department of Clinical Neurology, Tsukuba University. We report a 52 year-old man presenting with an acute considerable hair loss induced by carbamazepine (CBZ). The remarkable scalp hair loss started within a week after CBZ administration. There was no evidence of dermatitis or allergic reaction, or other cause for the hair loss. The serum concentration of CBZ was 8.6 microg/ml therapeutic range 8-12 microg/ml). CBZ was discontinued, and the hair loss stopped within several days with new hair growth. Medication-induced hair loss is an occasional adverse effect of many drugs used for neuropsychological diseases. CBZ also induces hair loss and its frequency was reported below 2%. Only a limited number of detailed case reports describing CBZinduced hair loss were available, and we found these cases could divide into two groups with regard to a delay in starting hair loss after administration of CBZ. In one group, the hair loss started within a week suggesting anagen effluvium and in another it started after two or three months suggesting telogen effluvium. This finding suggests the causative



mechanism of CBZ-induced hair loss is not unitary.

What Is Semantic Content Enrichment? **Knowledge insertion**

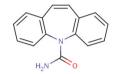
A case of hair loss induced by carba

Kohno Y, Ishii A, Shoji S, Department Tsukuba University.

We report a 52 year-old man presen considerable hair loss induced by ca remarkable scalp hair loss started w administration. There was no evider reaction, or other cause for the hair concentration of CBZ was 8.6 mi/ 12 microg/ml). CBZ was discor stopped within several days

Medication-induced hair/ many drugs used for ny aropsycholog Carbamazepine

Accession Number DB00564 (APRD00337)



Brand names

Apo-Carbamazepine

Atretol

Biston

Calepsin

Indication

For the treatment of epilepsy and pain associated with true trigeminal neuralgia.

Pharmacodynamics

Carbamazepine, an anticonvulsant structurally similar to tricyclic antidepressants, is used to treat partial seizures, tonic-clonic seizures, pain of neurologic origin such as trigeminal neuralgia, and psychiatric disorders including manic-depressive illness [...]

Toxicity Mild ingestions cause vomiting, drowsiness, ataxia, slurred speech, nystagmus, dystonic reactions, and hallucinations. Severe intoxications may produce

Dosage forms

Suspension Oral Oral Tablet

DrugBank

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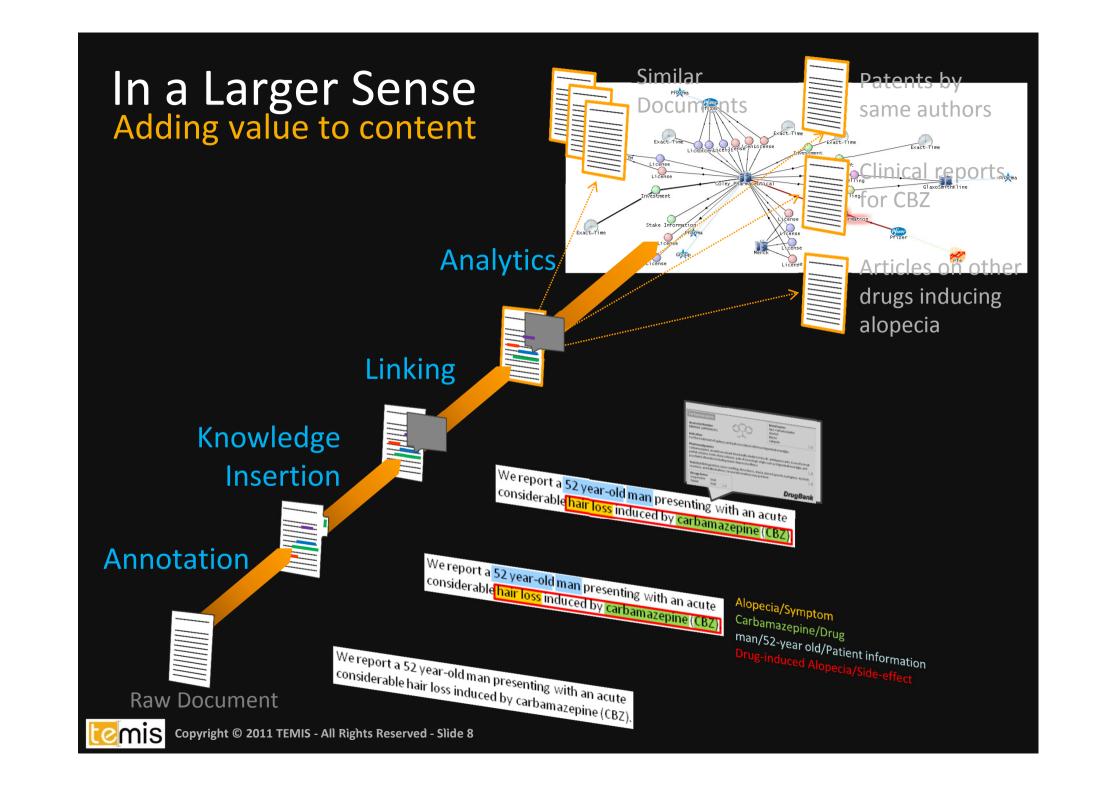
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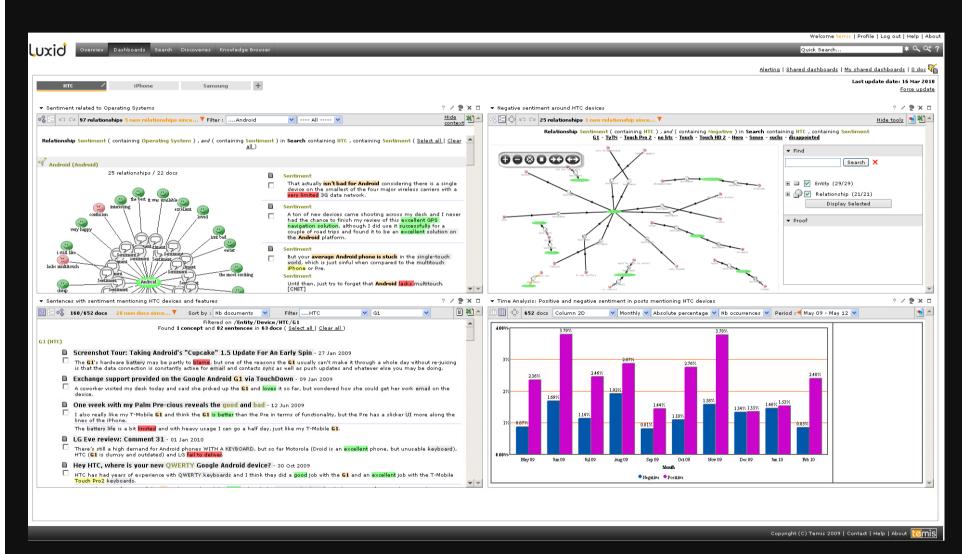
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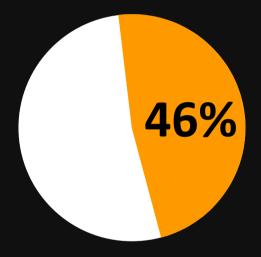
mechanism of CBZ-induced hair loss is not unitary.

knowledge



At Corpus Level Content Analytics





semantically enrich their content

Publishers of Scientific Journals





82% to make content more compelling

- Improved Search & Navigation
- Semantic Linking to related content & knowledge
- Visual Analytics



57% to create new products & services

- Knowledge Bases
- Topic Pages
- Contextual Advertising



100% for productivity gains and workflow flexibility

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Facets

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Locations	View more	
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Royaume-Un	> France	380
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US-CHINA-TIBET-PROTEST





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LEBANON-POLITICS-HARIRI- ALGERIA-WEATHER-SNOW















JAPAN - 1 YEAR ON Internationale Filmfestspiele Berlin
QUEEN'S DIAMOND JUBILEE EGYPT
FRANCE ELECTION
THEME OF THE MONTH
AFGHANISTAN
7 BILLION TENSIONS IN ARAB WORLD
FASHION

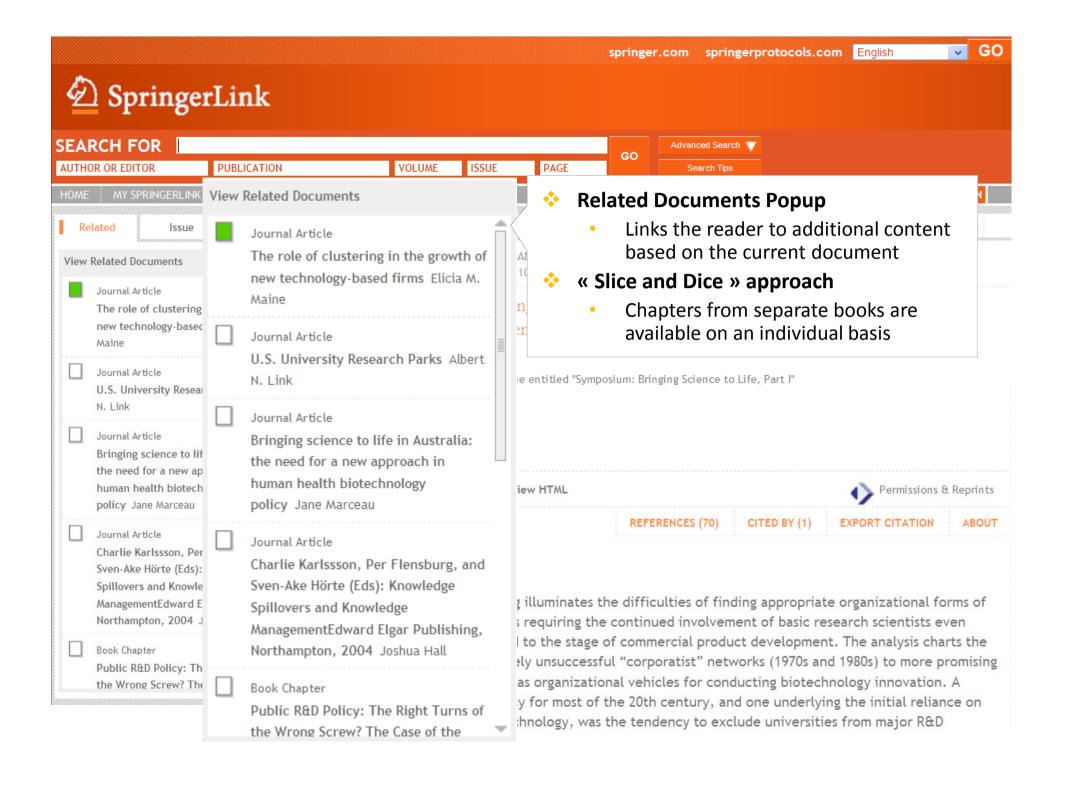
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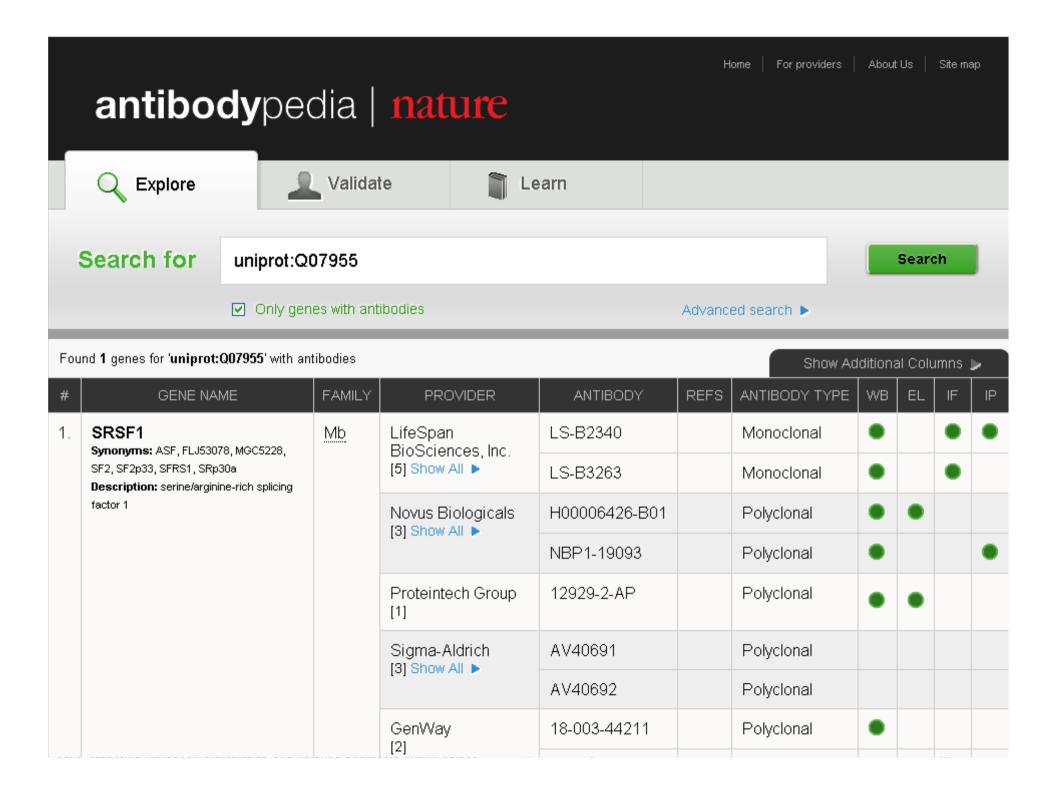
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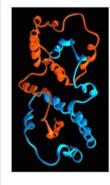




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doi:10.1038/nm.2154

Nature Medicine

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Pengyuan Yang, Huazhang An, Xingguang Liu, Mingyue Wen, Yuanyuan Zheng, Yaocheng Rui, Xuetao Cao doi:10.1038/ni.1876

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Dimitrios Lagos, Gabriel Pollara, Stephen Henderson, Fiona Gratrix, Martin Fabani, Richard S.B. Milne, Frances Gotch, Chris Boshoff

doi:10.1038/ncb2054

Nature Cell Biology

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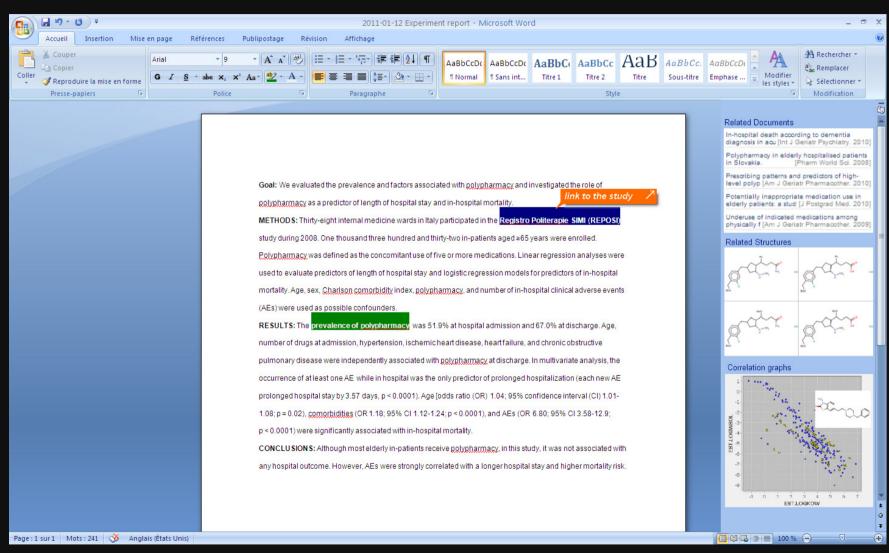
Post a job for free

Semantic Content Enrichment Benefits for Information Access

- Makes highly relevant content highly findable
 - Improves precision and recall of search engines
 - Highlights most relevant content
- Facilitates exploration
 - Powers facets
 - Provides navigational cues
- Boosts insight
 - Provides context by linking to related documents and knowledge
 - Provides perspective by enabling analytics
- Enables proactive delivery in the workflow
 - Complements dedicated interfaces & explicit search
 - At the heart of end-user applications & CMS



Proactive Delivery in the Workflow Targeted information when you need it



Semantic Content Enrichment How can it be deployed by the Enterprise?

- ECMs value metadata ...
 - Most recent ECMs offer metadata management mechanisms

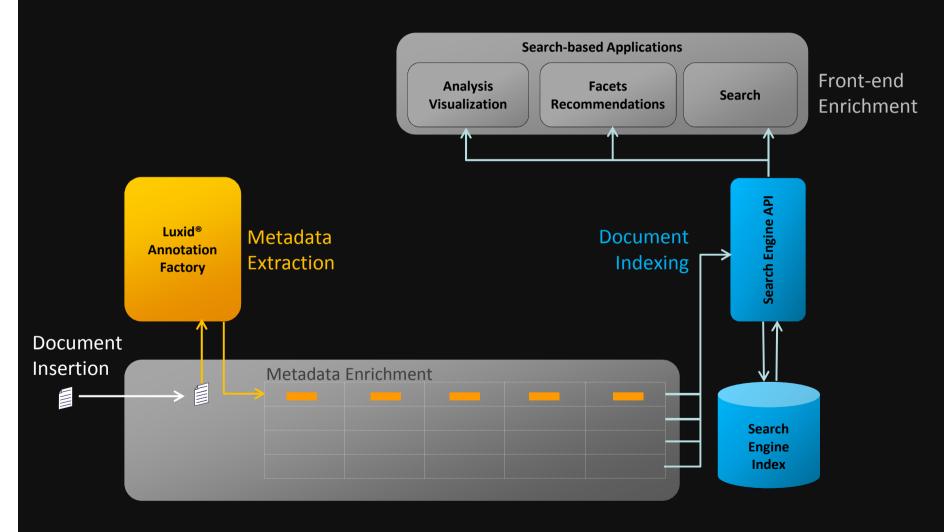
Semantic Content Enrichment How can it be deployed by the Enterprise?

- ECMs value metadata ...
- ... but metadata must be contributed manually which is inefficient
 - Time Consuming
 - Shallow
 - Inconsistent

Semantic Content Enrichment How can it be deployed by the Enterprise?

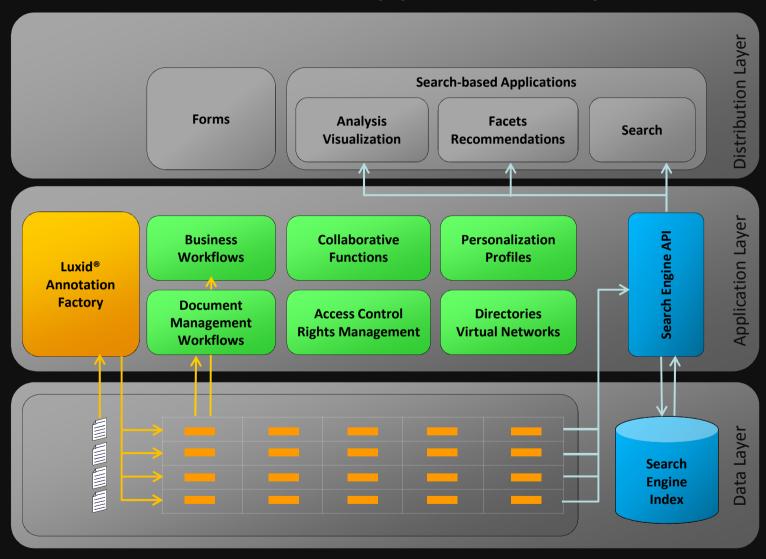
- ECMs value metadata ...
- ... but metadata must be contributed manually which is inefficient
- Automated Semantic Content Enrichment completes ECMs with a metadata production process that is
 - Productive
 - Deep
 - Consistent

Flow Diagram Luxid® for ECM





At ECM Scale Metadata enriches the application layer



Value Proposition

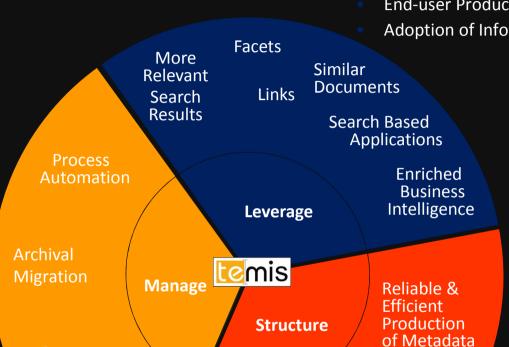
- Ouicker & More effective search
- **Analysis**
- **End-user Productivity & Satisfaction**

Minimal End-user

Contribution effort

Adoption of Information System

- **Enables scalability**
- Helps reduce risks
- Helps optimize costs
- Informs decision making



Knowledge

Augmentation

Base



Enterprise **Taxonomy**

Domain specificity

Consistency







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Content **Analysis**

Usage

Analysis

Example use cases Leverage

Global Information Sharing Initiative

Classification plan based on an enterprise taxonomy (Client, Segment, Channel, Product, Technology, Region, Type of Document)

- Quicker and More Effective search processes
- Facilitates Knowledge Base creation
- Places information in Context / in Perspective with news and internal knowledge
- Accelerated information distribution

HR Expertise Mapping

CV and work documents analysis Extraction of subjects of expertise

- Topical Experts identification
- Enrichment of directories and collaborative workspaces
- Collaborative networks detection

Product Voice of customer

Categorization of incoming customer calls (Incident type, Product, Segment, Region)

- Call center optimization
- Customer pain points identification
- Product / Service improvement
- Product quality alerts

R&D Scientific Discovery

Scientific Litterature analysis (articles, patents, internal reports, etc)

- Production and maintenance of research landscapes
- Identification of promising research directions



Example use cases Manage

IS Content Management optimization

Classification plan based on an enterprise taxonomy (Type of Document, Type of Information)

- Content Management process scalability
- Document Management Workflow Automation
- Access Control Optimization
- Support for migration and fusion of document management systems

IS Archival optimization

Classification plan based on an
 Legal Dpt enterprise taxonomy (Type of Document, Type of Information)

- Identification of regulated, binding or evidentiary documents
- Minimized regulatory / judicial risk
- Optimized costs

IS Information Systems optimization

Document Auditing
Usage Analysis
Visualization & Monitoring

- Analysis and demonstration of service value
- Optimized costs
- Optimized investments



Integration in the ECM Underlying principles and key mechanisms

- Interfacing via Web Services
 - Triggered manually or through ECM timer jobs
 - Luxid® for ECM extracts metadata from each document and stores it into each ECM's native infrastructure:
 SharePoint columns, Alfresco aspects, ...
- Frees the metadata from the search engine
 - All applications can access the metadata
 - Enables massive re-enrichment (archive repurposing...)
 - Manual metadata edits (removal, addition...) are also stored
 Subsequent extractions reproduce and preserve modifications
- Available integrations :





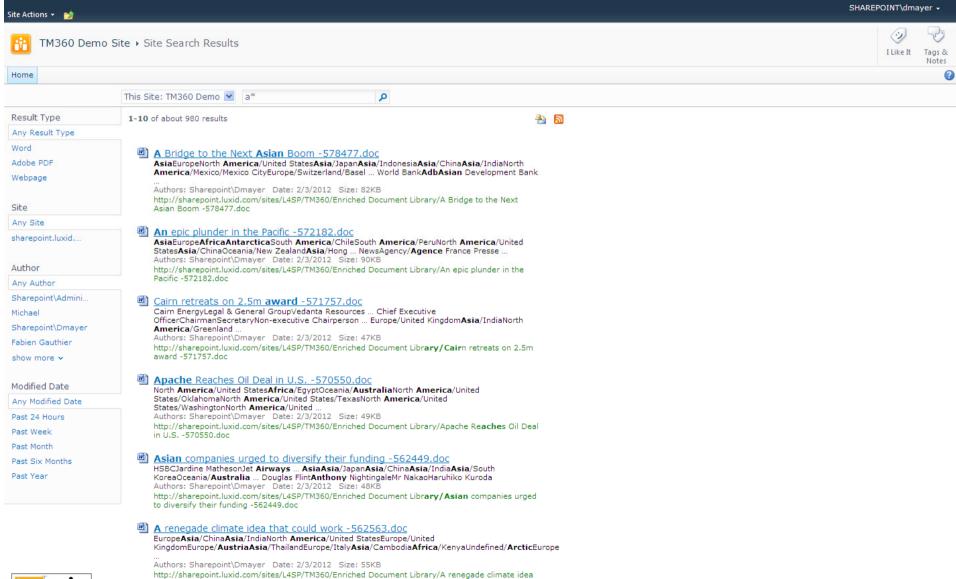






Luxid® for SharePoint 2010

SharePoint 2010 Standard Search Center





SharePoint 2010 Standard Search Center

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Luxid® for SharePoint 2010 **Enriched Search Center**

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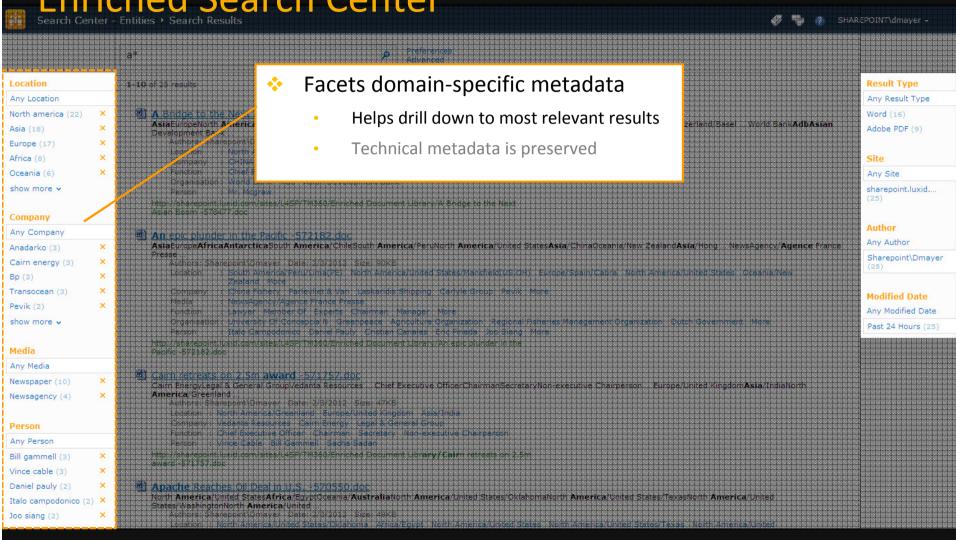
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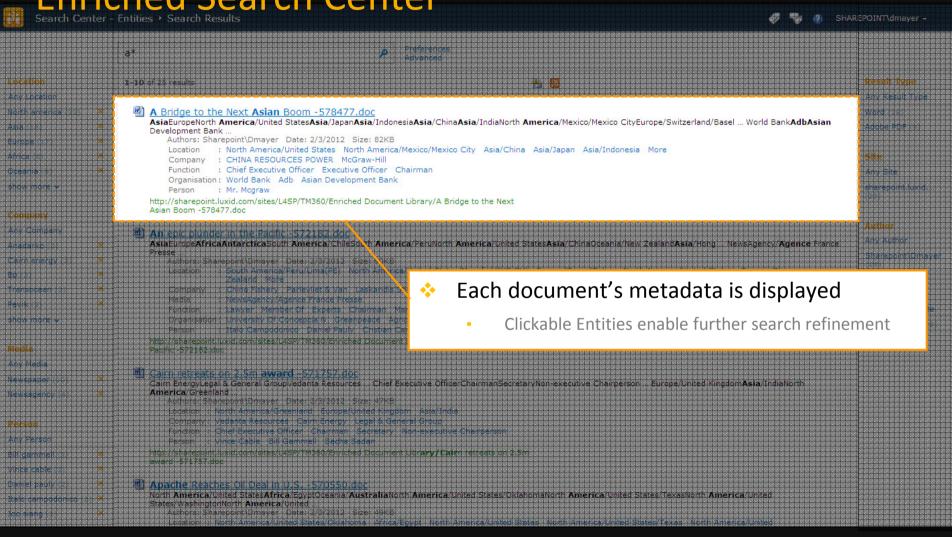
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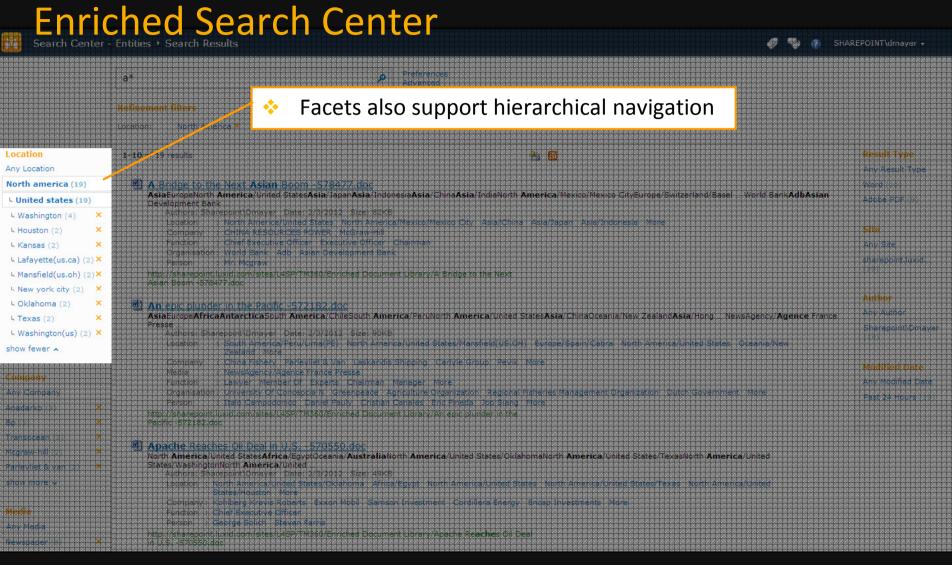
Luxid® for SharePoint 2010 Enriched Search Center



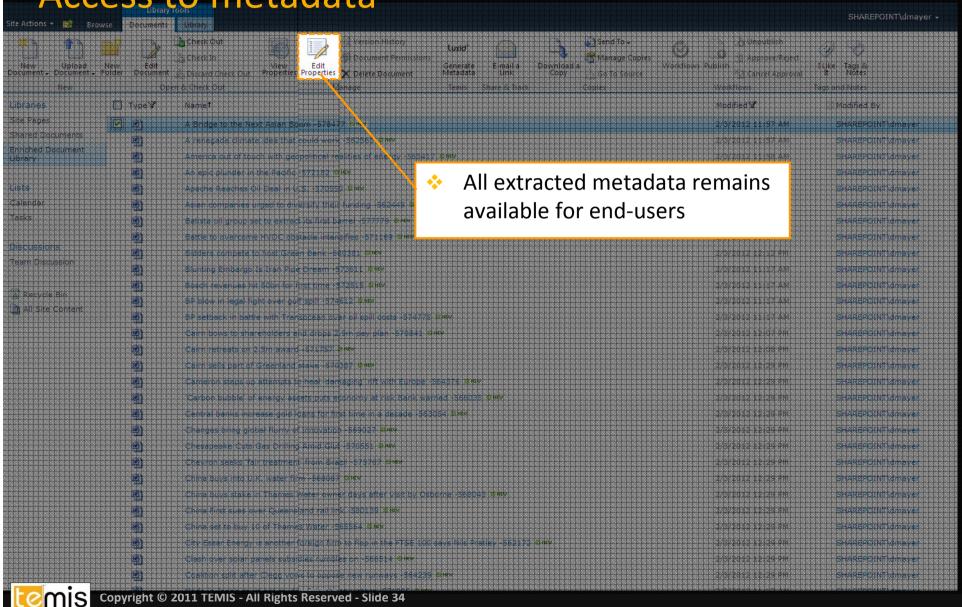
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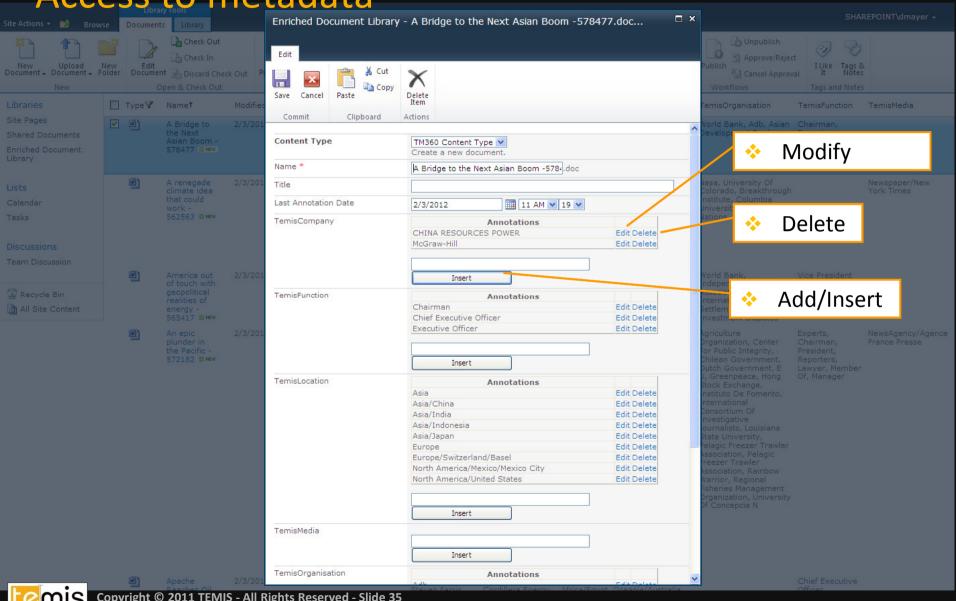


Luxid® for SharePoint 2010 Access to metadata

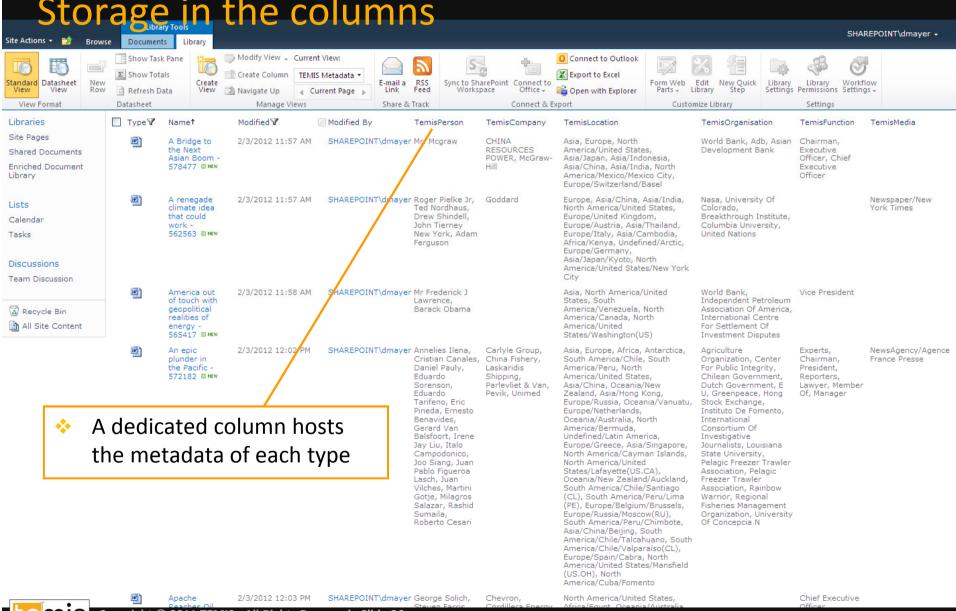


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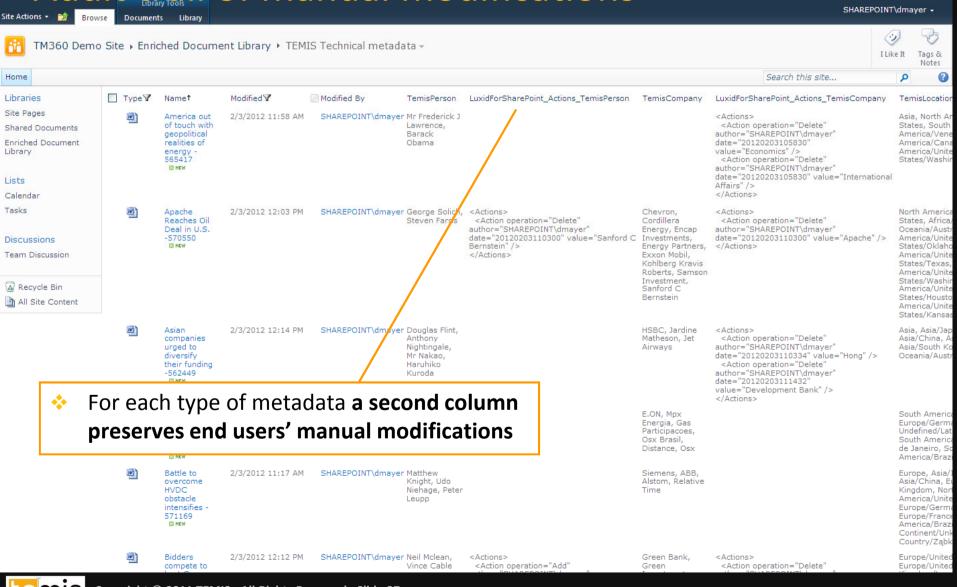
Access to metadata



Luxid® for SharePoint 2010 Storage in the columns



Luxid® for SharePoint 2010 Audit trail of manual modifications



Agenda

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- Semantic Content Enrichment in brief
- Value Proposition & Use Cases
- Luxid® for ECM
- Conclusion

Conclusion Semantic Content Enrichment going mainstream

- New uses for a mature technology
 - Adopted by Publishers and propagating to the Enterprise
 - Now integrated with Enterprise Content Management Systems
 - Makes the entire Information System more intelligent
- Brings value throughout the entreprise
 - Structures the unstructured
 - Helps manage content and fight Information Overload
 - Helps leverage information for strategic impact



Thank You Your questions

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Ressources

- Publishing Research Consortium study on Journal Article Mining
 - An in depth report on ongoing and planned semantic content enrichment practices in the STM Publishing Industry with a special focus on Journals
 - Click here
- TEMIS Networked Content Manifesto
 - A White Paper providing insights into the benefits and areas of application of semantics in the context of Professional Publishing
 - Click here
 - New version of this White Paper coming out shortly with Enterprise use cases, please inquire with me directly at daniel.mayer@temis.com