Making of gold

Stories from the content enrichment workbench
Objectives of this presentation

- Explore the content enrichment challenge
  - Motivation
  - Typical problems (and some solutions)
  - Case studies
  - Lessons learnt
Motivation for Content Enrichment

- Changes in customer expectations
- Challenges to existing business models
- New revenue opportunities
- Maintain relevance as a publisher

Helping publishers deliver content enriched digital products
What is happening in this area?

Elsevier’s Article of the Future

OpenCalais

data.gov.uk

The wider web
What are the typical challenges?

• What balance of automated and manual processes are required?
• What should we enrich?
• What will increase the usage and value of our content?
• Is there a business model for enrichment?
• How and where do we do enrichment?
• How can we take advantage of third-party user enhancements?
• How do we need to rework our publication process to support enrichment?
What to enrich?

- Fine-grained categorised content
- Semantically annotated terms
- Semantic metadata
- Machine readable datasets
- Web services
- Digital workflow products
- New Revenue Streams

Helping publishers deliver content enriched digital products
What to enrich?

- DOI for citations
- Hyperlinks within document
- Inline reference display
- DOIs for figures, tables
- Granular comments
- Sortable citation list
- Display context for references
- Figure region annotations
- Paragraph-specific linking
- Tabbed content display
- In-text links/actions for terms
- Citation type (e.g. supporting, contradicting)
- Actionable data for figures
- Categorization of document
- "Citations in context" - display text from target
- In-text markup of terms

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Methods of content enrichment

1. Automated recognition of terms and structures
2. Manual annotation
3. Retain the authors’ original rich data
4. Outsourced enrichment
5. User generated enrichment
Content enrichment maturity

1) BASIC
Content enrichment only used for styling

2) UNSOPHISTICATED
Content stored as plain text with minimal markup and links

3) RESPONSIVE
Contextualisation through content markup

4) INTEGRATED
Human readable semantic markup

5) EMBEDDED
Machine readable semantic markup

• Content enrichment needs to be considered a core organisational capability

• Need to determine the minimum level of maturity you need to reach to achieve your organisational objectives

• Need to start learning now as this will require significant organisational change that will take time
Case studies

• Pharmaceutical Press
  – Supporting manual enrichment of content
• BSI
  – Managing outsourced content enrichment
  – Automatic conversion of British Standards
Supporting manual enrichment of content
Supporting manual enrichment of content
Supporting manual enrichment of content
Managing outsourced content enrichment

1. Raw Content
2. Convert to XML
3. Manual check
4. Accept
5. Preview and test
6. Comment and update rules
7. Rework

Publisher

Supplier

Helping publishers deliver content enriched digital products
Managing outsourced content enrichment

Helping publishers deliver content enriched digital products
Automatic conversion of British Standards

1.0.6
Initial temperature $T_0$
The temperature of a structural element at the relevant stage of its restraint (completion).

1.5.6
Cladding
The part of the building which provides a weatherproof membrane. Generally cladding will only carry self weight and/or wind actions.

1.5.7
Uniform temperature component
The temperature, constant over the cross section, which governs the expansion or contraction of an element or structure (for bridges this is often defined as the ‘effective’ temperature, but the term ‘uniform’ has been adopted in this part).

1.5.8
Temperature difference component
The part of a temperature profile in a structural element representing the temperature difference between the outer face of the element and any in-depth point.

1.6
Symbols

1) For the purposes of this Part of Eurocode 1, the following symbols apply.

NOTE: The notation used is based on ISO 3888.

2) A basic list of notations is provided in EN 1990, and the additional notations below are specific to this Part.

Latin upper case letters

$R$
thermal resistance of structural element

$C$
thermal resistance at the inner surface
Automatic conversion of British Standards
1.5.5 initial temperature $T_0$

the temperature of a structural element at the relevant stage of its restraint (completion)

1.5.6 cladding

the part of the building which provides a weatherproof membrane. Generally cladding will only carry self weight and/or wind actions

1.5.7 uniform temperature component

the temperature, constant over the cross section, which governs the expansion or contraction of an element or structure (for bridges this is often defined as the “effective” temperature, but the term “uniform” has been adopted in this part)

1.5.8 temperature difference component

the part of a temperature profile in a structural element representing the temperature difference between the outer face of the element and any in-depth point

1.6 Symbols

(1) For the purposes of this Part of Eurocode 1, the following symbols apply.

NOTE: The notation used is based on ISO 3998

(2) A basic list of notations is provided in EN 1990, and the additional notations below are specific to this Part.

Latin upper case letters

$A$ thermal resistance of structural element

$A_i$ thermal resistance at the inner surface
Lessons learnt / our approach to cost-effective enrichment

• Derive enrichment targets from organisational objectives and desired content capabilities

• Reduce the cost of manual enrichment with tools that limit options, provide validation, and provide preview

• Manage outsourced suppliers with automation and manual checks, and increase the automation over time
  – Expose content checks to suppliers so they can test themselves

• Use automated enrichment where possible
  – And supplement with automatic testing to focus manual checks – it’s much easier to detect problems than fix them

• Start learning now as this is an organisation behaviour and capability change
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