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# Integration of an Automatic Indexing System within the Document Flow of a Grey Literature Repository

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DIY
DO IT YOURSELF

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# Indexing of Grey Literature

- self-publishing, **self-indexing**
- the **Web** made publishing easier, can it make **indexing** easier as well?
- **make non-professional indexing better** through technology
- increase grey literature **visibility** and support **navigation** interfaces

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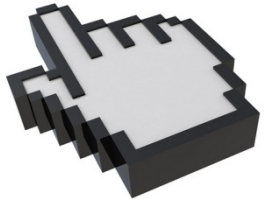

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# Automatic Indexing

- conditional on **full-text** availability
- **machine learning** based on analysis of language corpora
- automatic **term assignment**
- automatic **suggestions of indexing terms** lessen the cognitive overhead involved in indexing
- **human feedback** to correct the obvious mistakes

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# Implementation

- **re-use** of existing components
  - combination and extension
- open source, open formats

subject headings system + digital repository + automatic indexer + text corpus + glue code

=

**automatic indexing system**

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# Subject Heading System

- **Polythematic Structured Subject Headings System**
  - universal Czech-English controlled vocabulary managed and used at the National Technical Library
  - expressed in RDF data format via SKOS vocabulary

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# Digital Repository

- **CDS Invenio**
  - open source, modular architecture
  - extensions to the **interface for entering new documents** and the **search interface**



# Automatic Indexer

- **Maui Indexer**
  - automatic **term assignment** with a controlled vocabulary
  - extensions for **Czech** language (stemmer, stopwords)
  - indexing model for **Czech** language with usage of **PSH**

# Text Corpus

- **National Repository of Grey Literature**
  - maintained by the **National Technical Library**
  - aggregates documents from **partner institutions**
  - in some cases, **metadata** are created by the users

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# Glue Code

- code to **tie all pieces together**
- **web services**
  - loose coupling
  - re-use of existing code

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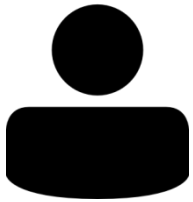

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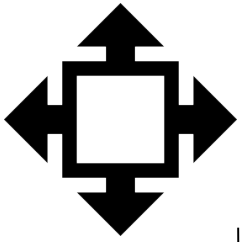
# User Interface Design Considerations

- **opt-in** indexing procedure
- **suggest** indexing headings
- **autocomplete** headings' fragments
- **learn by example** — show example documents indexed with the heading in question
- **extending search** interface





# Further Possibilities and Challenges

- indexing must be **reflected in end-user interfaces**
- continuous **enhancements** of the individual parts of the document processing pipeline
- **user-generated** indexing
- **feeding back** into the development of the subject headings system

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# Thank you for your attention!

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