Metadata and their sources

Oldřich Ulrych, Jiří Veselý (Charles University, Prague)

Praha, June 10-12, 2008

Launching the DML-CZ
Czech Digital Mathematics Library

DML-CZ Workflow

- 1. Preparation
- 2. Scanning
- 3. Optical Character Recognition
- 4. Metadata harvesting
- 5. Integration
- 6. Digital Library

Problems and the Problem

Electronic publication:

Pictures of Czech Mathematicians

Czech folk songs

Czech fairy tales published in last two centuries

Interesting Czech mathematical sources

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Pictures of Czech Mathematicians Czech folk songs

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Interesting Czech mathematical sources

Possible material:

Journals containing mathematics published Bohemia

Proceedings of conferences related to Bohemia

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Books:

Collection of works of Bernard Bolzano

Related materials



Books:

Collection of works of Bernard Bolzano

Related materials

Some other books



Books:

Collection of works of Bernard Bolzano Related materials

Some other books



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Collection of works of Bernard Bolzano Related materials Some other books

Substantionally different approaches

For all journals we can distinguish:

Traditionally composed volumes/issues

Retro born digital volumes/issues

Digital born volumes/issues

UTF-8:

"all alphabets together" advantages

UTF-8:

"all alphabets together"

advantages

complications

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Jahrbuch über die Fortschritte der Mathematik (1868-1942)

Zentralblatt für Mathematik und ihre Grenzgebiete (since 1931)

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Title

Author

Language

Clasification (MSC)

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id ZMath

id Jahrbuch

Type of article

Note(s)

Link(s)

Journal, Volume, Issue, Pages

Title

Language variants, English title obligatory, original title (not Russian one), TEX syntax, correct graphics

Title

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Author

Title

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Author

All authors, full Names, search facilities (more rich)

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always when available (a key to review, other related articles . . .)

Type of article

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Any journal/proceedings requires specific approach

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Combination of approaches gives the best result

Numerous checking is a necessity

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Czechoslovak Mathematical Journal

(1951 – 1991; 41 Vol.)

MR: 2080 **Zbl**: 2088 **Jb**: 0 **2298**

approx. 590 titles translated (\approx 25 %)

Commentationes Mathematicae Universitatis Carolinae

MR: 1803 Zbl: 1756 Jb: 0 190

approx. 220 titles translated (\approx 12 %)

Časopis pro pěstování matematiky a fysiky

(1872 – 1950; 75 Vol.)

MR: 20 Zbl: 183 Jb: 1213 3884

approx. 3700 titles to be translated (pprox 95 %)

Czechoslovak Mathematical Journal

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MR: 2080 Zbl: 2088 Jb: 0 2298

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Technically . . .

Metadata created as described above:

Input of metadata editor

Comparison with activities in other countries

Technically . . .

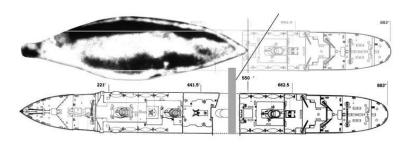
Metadata created as described above:

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Endless work ...

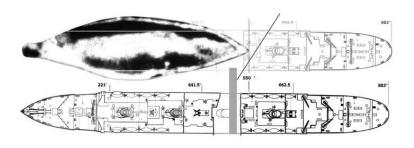
Many much better aproaches exist



Ark mold formation at üzengili (Drupinar site) compared to RMS Titanic copyright © David A Deal 1998

Endless work . . .

Many much better aproaches exist

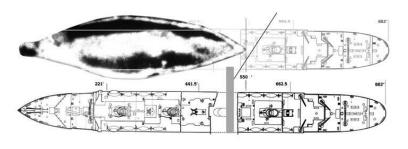


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Noah's ark was produced by amateurs while Titanic was created by highly experienced experts!

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