

Use cases: DML-CZ vs. FFdigi

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Building the digital library

The goal: to *map* the reality into ones and zeroes.

..... it could be a really tough work.

DML-CZ vs. FFdigi



DML-CZ

<http://dml.cz/>

VS.



FFdigi

<http://digilib.phil.muni.cz/>

... however, this is a challenge

mathematicians

(Institute of Mathematics, Academy of Science CR)

vs.

philosophers

(Faculty of Arts, Masaryk University)

DML-CZ

- Czech Digital Mathematics Library
- mathematics materials published in Czech lands (since 1872)
- includes historical journals and monographs
- project started at 2005

FFdigi

- Digital Library of Faculty of Arts (FA)
- all stuff ever published at FA of Masaryk University (since 1919)
- filology, history, musicology, philosophy, . . .
- started at 2009

DML-CZ: Lessons learned

- technically not so difficult
 - we developed specialized SW to control the content
 - DSpace + XMLUI are for the task
- however, human resources consuming
 - collecting and preparing materials
 - assemble scanned pictures
 - **fill in the metadata** – need experts!
 - check the results
 - never-ending story (to keep it alive)
- copyright, licenses, ...
- **passionate customers and leader!**

- **Metadata Editor** – to work with the content (data)
 - this is our child :-)
 - Ruby based web application
- **DSpace + XMLUI**
 - import from ME (DSpace API)
 - use of *Communities* and *Collections* to represent structures (*Journal* ⇒ *Volume* ⇒ *Issue*)
 - XMLUI (Manakin) to customize the UI and add some features
 - OAI-PMH to expose the content

FFdigi – a few words

We have learned how to build the digital library – lets use the knowledge on a bit different project.

The 'philosophers' from the Faculty of Arts at our university asked us for a digital library similar to DML-CZ.

Upon the software we have started to build the FFdigi – Digital Library of the Faculty of Arts (FA).

- **DML-CZ**

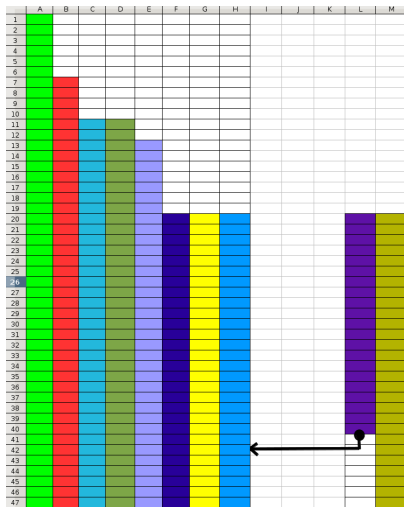
- mathematicians know what they want
- everything is absolute accurate

- **FFdigi**

- what to digitize at FA are not completely known
- types of publications are a bit strange
- don't ask for numbering volumes
- a lot of things are in chaos
- a publication's type depends on a point of view

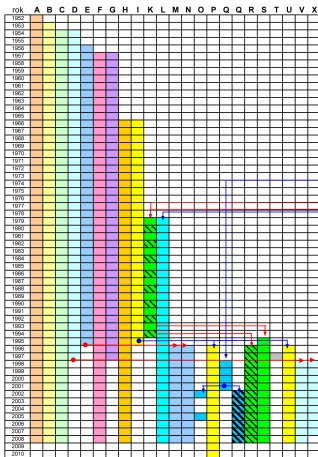
... during developing FFdigi we have started to love our mathematicians!

DML-CZ – schema



FFdigi – schema

SPFFBU – schéma všech sborníkových řad



Spisy FF



- A – jazyková
- B – filozofická
- C – historická
- D – literární
- E – archeologicko-klasická
- F – umělecko-lingvistická
- G – sociálněvědná
- H – hudebněvědná
- I – pedagogicko-psychologická
- K – germanisticko-anglistická
- L – romanistická

- 1952–2008
- 1953–2008
- 1954–2008
- 1954–1967
- 1955–1966
- 1957–2008
- 1957–1967
- 1966–2008
- 1966–1985
- 1975–1984
- 1976–2008

- M – archeologická
- N – klasická
- O – filmologická
- P – psychologická
- Q – teatrologicko-filmologická
- R – leařologická
- S – anglistická
- T – politologická
- U – pedagogická
- V – literárnívědná bohemistická
- X – literárnívědné slavistické

- 1966–2008
- 1966–2008
- 2002–
- 1966–2010
- 1968–2001
- 2002–2008
- 1966–2008
- 1966–2008
- 1966–2008
- 1966–2008
- 1966–2008

- BSE – Brno Studies in English
(doairučky v K a S)
- BBGN – Beiträge zur
Germanistik und Nordistik
(doairučky v K a R)
- ERB – Études romanes de Brno
(doairučky v L)
- ODF – Otázky divadla a filmu
(doairučky v Q a O)



- **DSpace can handle it!**
 - the basic DSpace data model is very good
 - item mapping to the different *Collections* is great
 - with help of XMLUI you can do almost everything
- ... not everything is perfect
 - metadata for *Community* and *Collection*
 - missing name authorities module

Gensym – computing similar articles using heuristic algorithms and methods.

Math Formula Search – searching for math formulas is a quite complicated task:

$$a^2 + b^2 = c^2 \quad \equiv \quad x^2 + y^2 = z^2$$

Formulas are normalized and weighted, searching subformulas is possible.

EuDML – DML-CZ is an integral part of and a content provider to European Digital Mathematics Library (EuDML).

*Eu***DML**

The **EUROPEAN DIGITAL
MATHEMATICS LIBRARY**

<http://eudml.org/>

Project page: <http://project.dml.cz/>

DML-CZ in DSpace:

<http://dml.cz/handle/10338.dmlcz/702539>

Metadata Editor:

<http://dml.cz/handle/10338.dmlcz/702537>

Math Formula search:

https://is.muni.cz/th/255768/fi_m/dp.pdf

Gensym:

https://is.muni.cz/th/39672/fi_d/dizertace.pdf