Metadata Editing and Validation for a Digital Mathematics Library

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July 7th, 2010
The Metadata Editor

• A tool developed for the Czech Digital Mathematics Library (DML-CZ) project.
  • A client–server web application.
  • Designed to
    • manage,
    • edit,
    • and validate
each article’s metadata and full texts prior to their integration into the digital library.
  • Open-source software (<http://dme.sourceforge.net/>).
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- input data loading,
- articles building,
- metadata editing,
- references processing,
- verification,
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Über zwei neue ebene Konfigurationen $(12_4, 16_3)$

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149-(154d)

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On-line Submissions and Validation

- The viability of a digital library rests with new acquisitions emerging mainly in the form of born-digital publications.

- The born-digital inputs to the Metadata Editor come from different sources, primarily from editors of various journals. ⇒ There is need for data validation.

- \TeX code have to be correct.
  - The digital library could use the metadata to generate \TeX document.
  - Conversion to MathML.

- The editors themselves need feedback ⇒ on-line application.
  - Make it possible to validate metadata during preparation of a new journal issue.
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<lang_summary>310</lang_summary>
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<msc>28B15</msc>
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<msc>46B42</msc>
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</article>

meta.xml:6: element keyword: Schemas validity error: Element 'keyword': This element is not expected. Expected is one of ( author, language ).
meta.xml fails to validate

#####

##### CHYBA: Clankova metadata "meta.xml" v adresari "/#1/" nejsou validní.

#####
On-line Submissions and Validation (cont.)

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University of Ljubljana, Masaryk University
Dynamic Generation of Editing Forms

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  - The XML Schema is processed on the server by a Perl script.
  - The script generates the JavaScript code that is included in the web page and which is subsequently sent to the client.
  - This JavaScript code runs in the web browser of the end user and generates a form that matches the language defined by the source XML Schema.
  - Not all features of the XML Schema are supported, but the mechanism is powerful enough to satisfy the requirements.
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Internationalization (cont.)

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• How time or date are displayed – the number of digits used, the separators, the order of date components, whether the 24- or 12-hour format is used – these can all vary from region to region.

• More specific issues may be encountered
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Choosing a Locale

- Since the Metadata Editor is a web application, the locale has to be set per request.

- With the help of sessions and cookies it is possible to remember a given locale between requests of the same user.

- The question is: Which locale is to be introduced for a new user with no cookies?
  - The HTTP/1.1 protocol defines the `Accept-Language` header.
    - Many users are unaware of the setting which was probably set when the user agent was installed and it might not conform to their preferences.
    - The user’s IP address.

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  - the Faculty of Arts of Masaryk University
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- The Metadata Editor is a live, continuously developing project. New features are added as needed.
- The on-line input and validation service was worked in to provide users with a comfortable and safe interface for data inclusion.
- The user interface is dynamically generated based on the formal definition of the metadata.
- The localization of the Metadata Editor is in progress.
- The Metadata Editor is used in several projects and will possibly be used in the EuDML project as well.
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Czech Digital Mathematics Library [online].
[cit. 2010-04-24].

Digitization Metadata Editor [online].
[cit. 2010-04-28].
Available from WWW: <http://dme.sourceforge.net/>

Bartošek, M., Kovář, P., Šárfy, M.:
DML-CZ Metadata Editor : Content Creation System for Digital Libraries.

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