Formats, metadata, standards and vocabularies for national bibliographic databases

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University of Novi Sad

ENRESSH Training school

Outline

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- The University of Novi Sad was founded on 28th of June 1960
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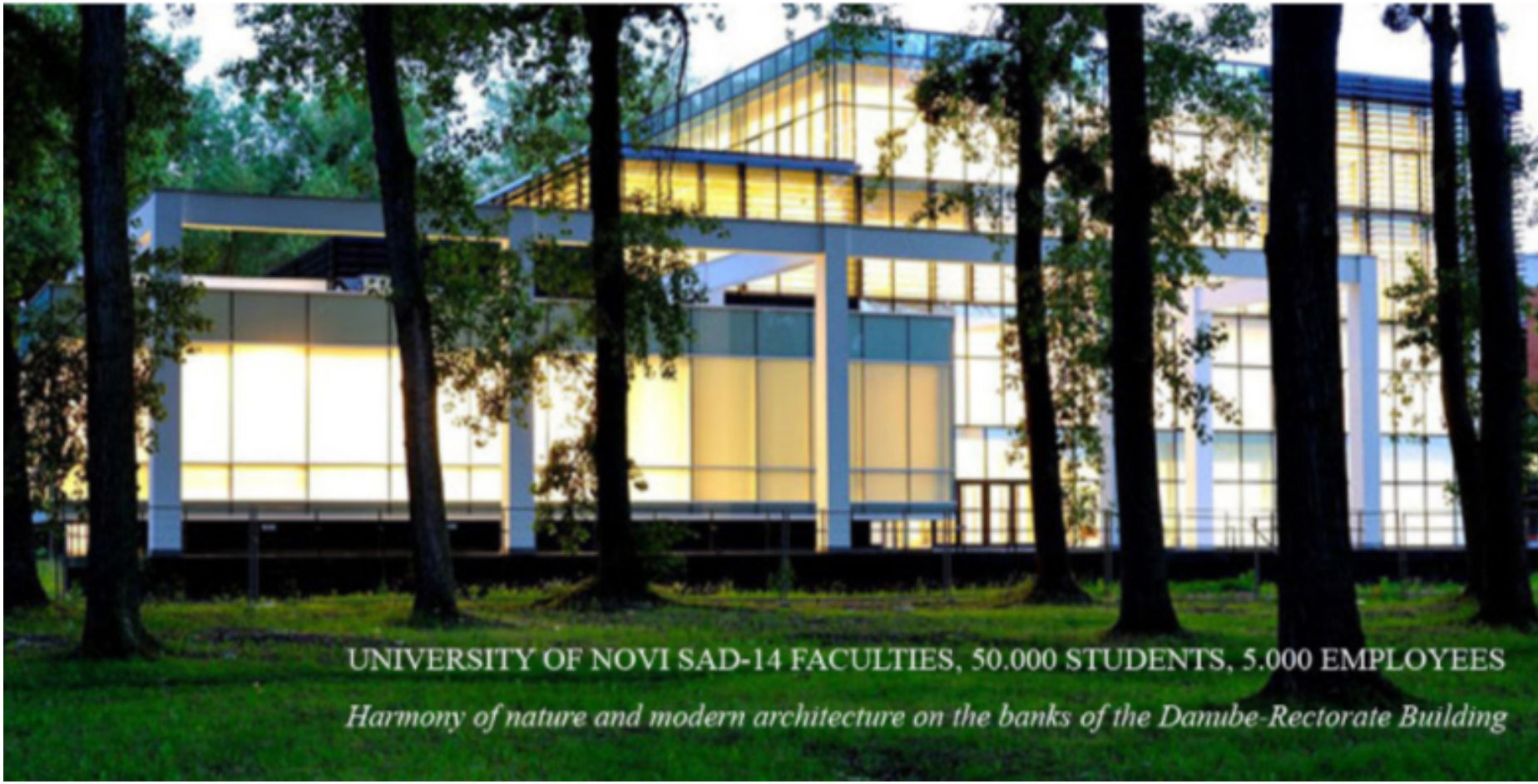
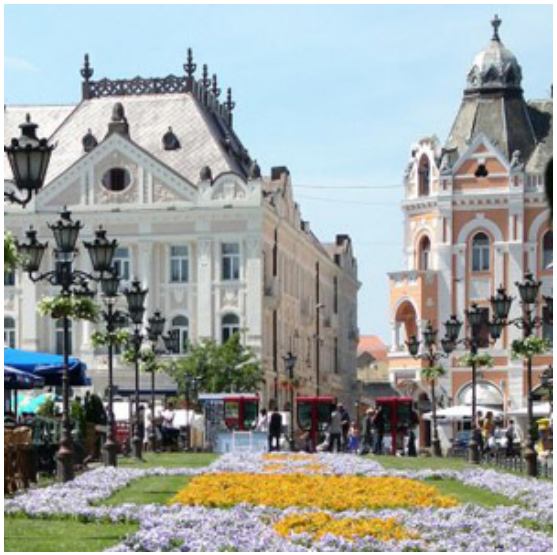
Rectorate building



University of Novi Sad Cities

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Metadata vs data

- Metadata commonly are understood as ‘data about data’
- The content of bibliographic databases are bibliographic metadata referring to research output
- Research outputs (pdf, xls, etc) represent data, while bibliographic databases store metadata - data about research outputs
- That is especially case if you are looking at bibliographic database as source for publications discovery (information retrieval)
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Which metadata vs in which format

- Which metadata should be preserved in bibliographic database is one question
  - purpose
  - needs
  - national evaluation rule-books
  - mandatory vs optional
  - rich vs light
- In which format metadata should be preserved is the another question
  - how to select best format for preservation?
  - structured database vs csv vs xml vs json, etc
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- Question very important for interoperability of systems
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- Ensures that the system can fulfil its purpose, while following recognized standards simplifies the work and can benefit interoperability
- Majority of bibliographic standards do not take evaluation purposes into account

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- Purpose, budget, the estimated number of records/requests, contemporary technologies/databases, experience of staff - technicians and librarians should be taken into account

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- Contributes to the accuracy of data on publication channels and the functionality of the database
- Journals, conferences, publishers, etc
- local/external identifiers, title, etc.

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- "From scratch" or extended stadard vocabulary, human/machine readable vocabulary, SKOS semantic relations vocabulary

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- user interface, API, protocol(s) for harvesting/federated search, etc.
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- Searching (basic and advance), browsing, downloading

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- Enables automated and efficient use of the database
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- EU services - evaluation for EU funded projects, reporting, etc
- Publications/outputs discovery

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Approaches

- Distributed vs Centralized
- The distributed approach makes it easier to have complete information in real-time, since it does not require propagation of updates to the central catalogue - federated search SRU/W
- However, for data-intensive operations, the centralized ap proach doesn't have the problem of querying multiple sites, and has more complete overview of the data available when executing operations - harvesting data OAI-PMH

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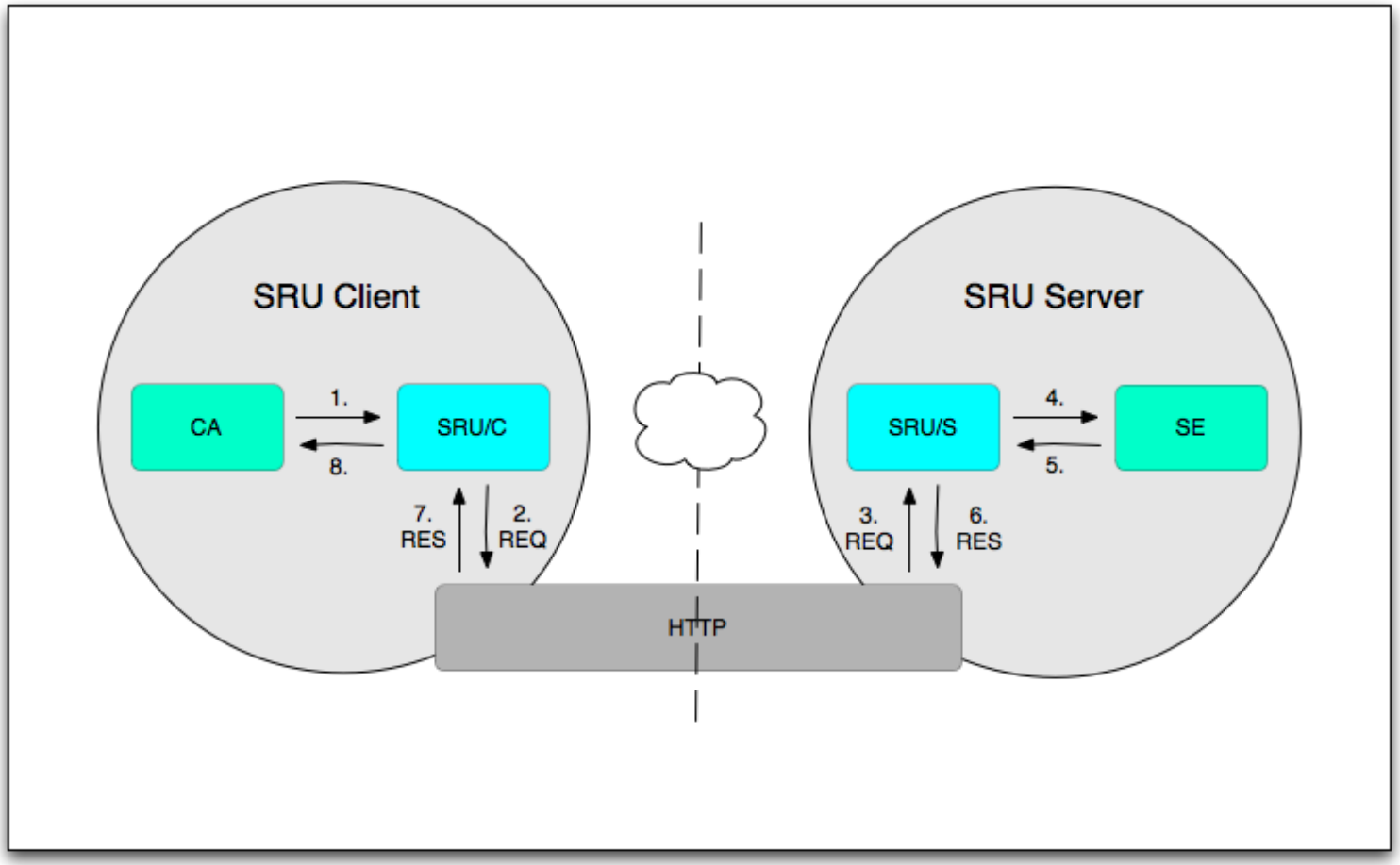
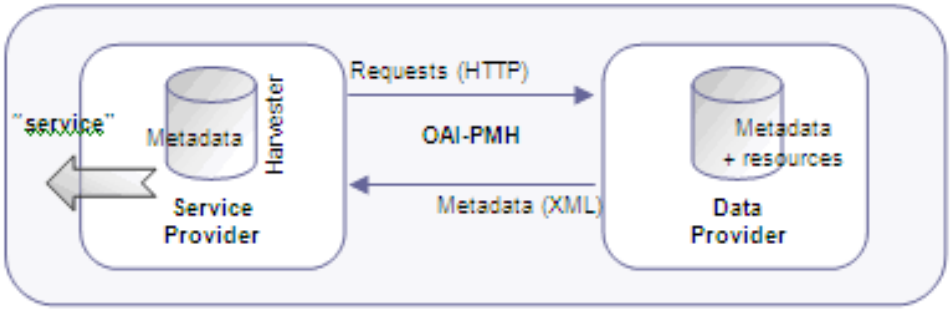
Distributed SRU/W based approach



Centralized OAI-PMH based approach



Centralized approach

- Data provider (nodes) and Service provider (Integrated European Publication Information Service)
- Protocols for harvesting metadata should be implemented on both side (OAI-PMH, ResourceSync, etc.)
- Target metadata format(s) should be selected
- All nodes (partner systems) have to export metadata to (at least one) target metatada format
- All nodes (data providers) have to **map its metadata to target metadata format**

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- Expressing the mapping in some format/language
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4. Software developers

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- The X3ML toolkit with the 3M editor could be used to automate the mappings
- This toolkit allows several steps and tasks of the process of harvesting, matching, mapping and integrating the data from the sources to the target catalogue
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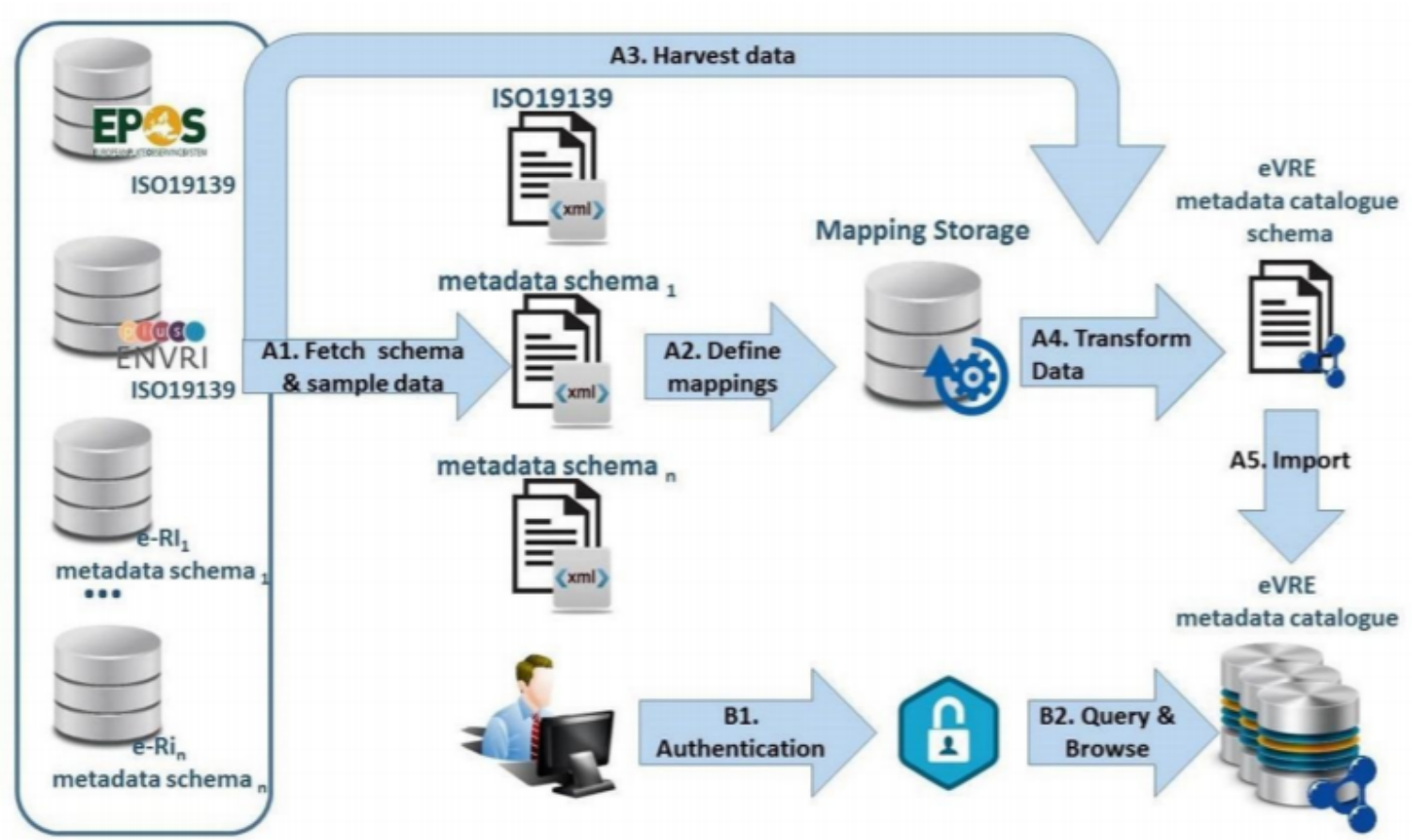

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- 3M also includes a versioning mechanism that allows storage of different versions of the matchings
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- CERIF RDF should be the result
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- In order to improve reusability of metadata, the system could be a data provider and could export metadata to some Service Provider(s)
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Questions

- Thank you for your attention!!!
- If you have any questions, please do not hesitate to
  - ask me during the school
  - contact me by email - dragan.ivanovic@uns.ac.rs