The National Library of Finland

Research Data Infrastructures

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What is Research Data?

- Data that is produced during a research
  - Observation, measurements
  - Documentation, interviews, questionnaires
  - Language corpuses, etc.

- Data that can be used in research
  - Data from other research projects
  - Statistics, registers, catalogues, etc.
The Fourth Paradigm of Science

- Observations (1500s)
- Theories (1700s)
- Calculations (1960s)
- Information (2010s)
Problems of Research Data Today

Problems of Research Data

- Unorganized
- Often deleted after research
- Hard to find
- Hard to re-use

Reason of These Problems

- Researchers do not merit from research data management
- They do not have adequate storage space, management tools, etc.
- Little standardization, common practices, etc.
Finnish Vision of Good Research Data Governance

<table>
<thead>
<tr>
<th>Policy:</th>
<th>Finland has a national research data policy.</th>
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<tbody>
<tr>
<td>Services:</td>
<td>Policy is supported by common digital services.</td>
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<tr>
<td>Access:</td>
<td>Data created with public funding is accessible for research.</td>
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<td>Funding:</td>
<td>Long-term stable funding for research data infrastructures.</td>
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<td>Academic Merits:</td>
<td>Researchers merit from research data output.</td>
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Research Data Policy

- Government-level decisions on general principles
- Current Government Programme:
  - “Information resources produced using public funding will be opened up for public and corporate access
  - in an easily reusable format”.

(http://valtioneuvosto.fi/hallitus/hallitusohjelma/en.jsp)
Existing Services

National Services by CSC – IT Centre for Science; http://www.csc.fi

- Research Data Storage Service
- Application Services – analysis tools
- Authentication Service (universities & research institutions)
Easy for Researcher – Seamless Interoperability between Service Providers
Research Data Project 2012 - 2014

- Metadata Working Group
  - Recommendations on Metadata

- Data Infrastructure Working Group
  - A proposal for a national research data infrastructure

- Long-Term Preservation Group

- Public Data Registries Group
  - Plans how to better open public data resources for research