**Scientific Data Sharing**

**Big Data Management**

**Challenges**

- Different standards are not interoperable
- No metadata standard
- Duplicative standards
- Big Data environment: volume, variety, and velocity

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**RDA Metadata Standards Directory**

<table>
<thead>
<tr>
<th>Name</th>
<th>RDF Data Cube Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The semantic properties are meant to publish multidimensional data, such as datasets, on the web in such a way that it can be linked to related datasets and concepts using the RDF Data Cube Vocabulary. The main underlying the Data Cube vocabulary is compatible with the cube model that enables richer statistical data and metadata exchanges, an RDF standard for exchanging and sharing statistical data and metadata among organizations.</td>
</tr>
</tbody>
</table>

**Directory Management**

- update
- storage
- collection

**Authentication**

- user account maintenance
- rights management
- permissions
- hosting

**Extensions**

- Link to key facts
- Links to tools
- Use Cases

**Metadata Standards Directory**


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**Concepts**

- Metadata Standard
- Linked Data
- Human-readable Policy
- Machine-readable Policy
- Resource Description Framework (RDF)

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**Adding new standards**

- Checking currency of existing standards, extensions, tools
- Updating outdated standards, extensions, tools
- Maintaining user accounts

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**Search:** SPARQL

**RDF format**

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