# Do MARC or `doJSON()` .

## Data model(s) of Invenio beyond 1.x

Alexander Wagner, *for* ***JOIN***$^2$

**CERN**

**Geneva, 13.10.2015**

HELMHOLTZ GEMEINSCHAFT

DESY

# Overview

- Invenio 1
- What is a book?
- Marc21
- Invenio 2
- `doJSON()`

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DESY

# Invenio up to 1.x

Invenio is a free software suite enabling you to run your own digital library or document repository on the web. The technology offered by the software covers all aspects of digital library management from document ingestion through classification, indexing, and curation to dissemination. Invenio complies with standards such as the Open Archives Initiative metadata harvesting protocol (OAI-PMH) and uses MARC 21 as its underlying bibliographic format.

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**Marc21 basis**

was the selling point for **JOIN$^2$**

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DESY

# Marc21 = *MA*chine-*R*eadable *C*ataloging

- International Standard by the Library of Congress
- Established in 1966
- Tested and improved for nearly 50 years
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- Exchange format (lots of data available)
- Growing adoption due to RDA (e. g. Germany dropping MAB)

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## Marc21 as Internal Format?

Not necessary, however, seemless integration required

- easy, complete ingestion
- easy, complete export

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DESY

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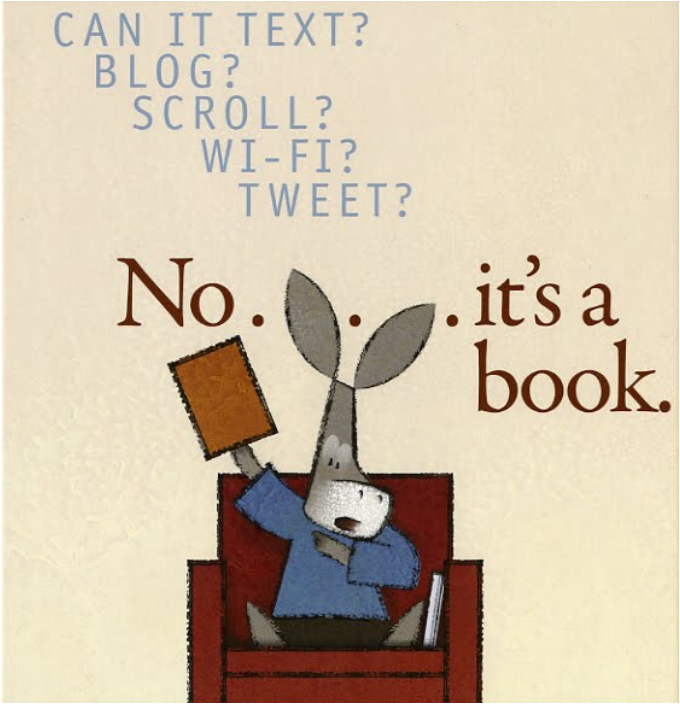


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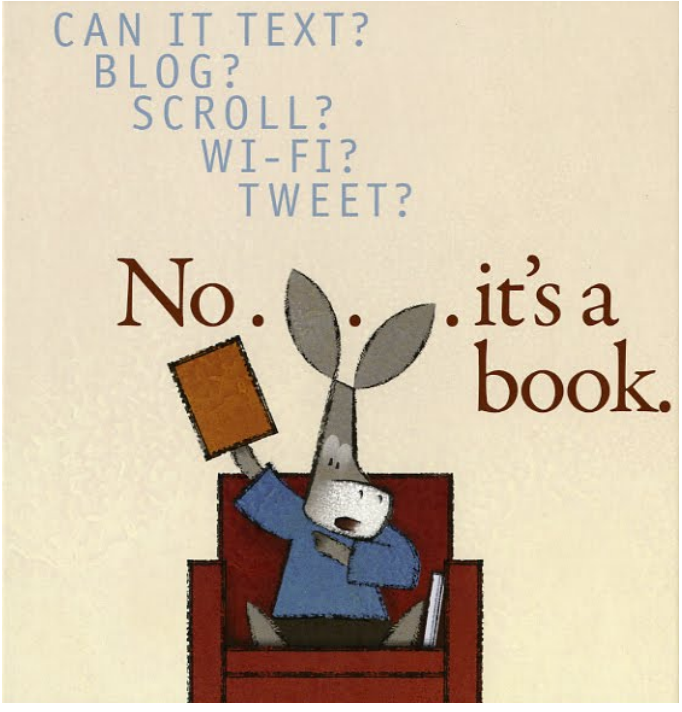


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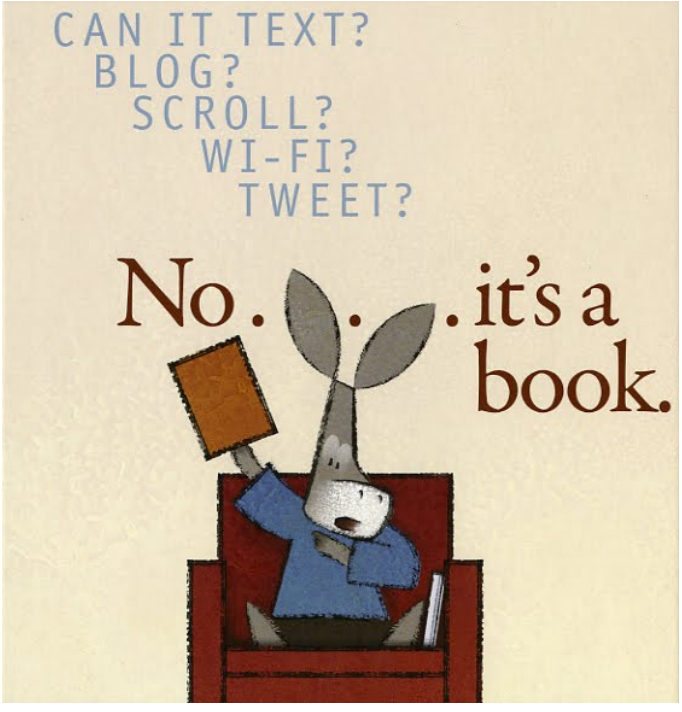


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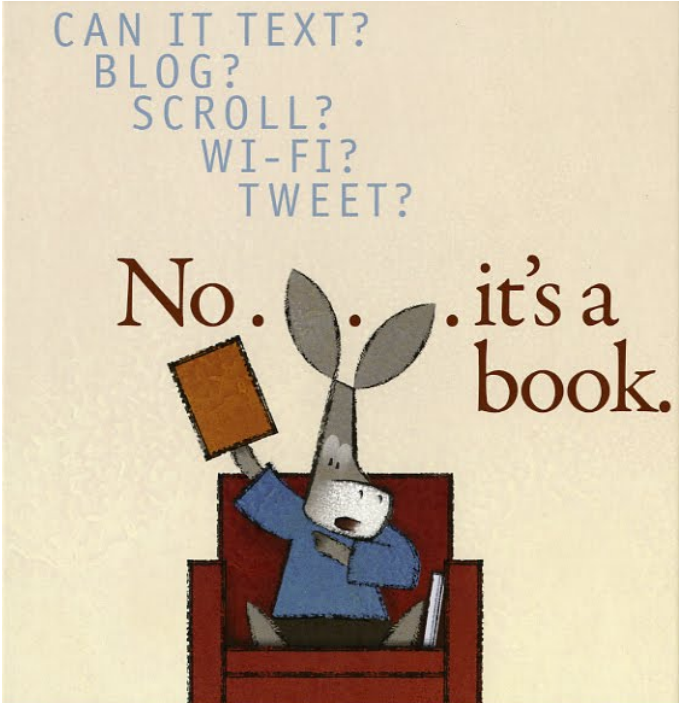


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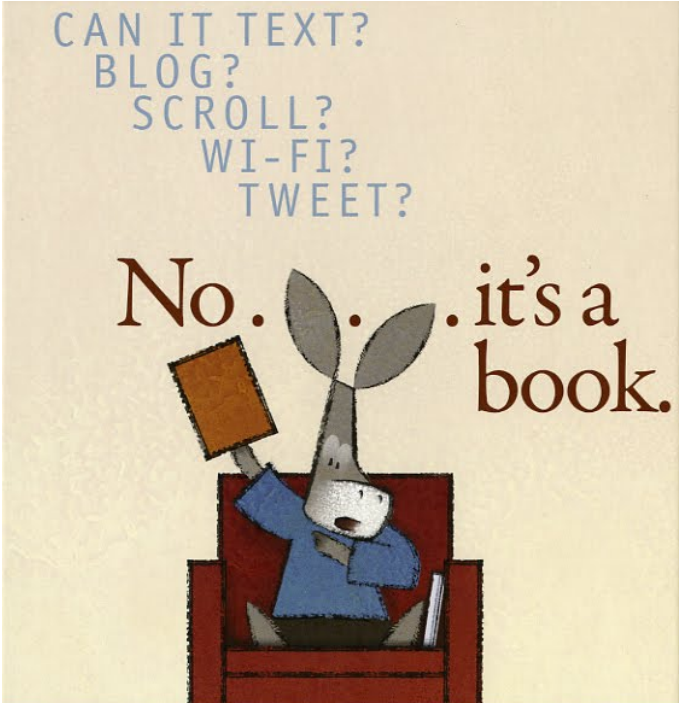


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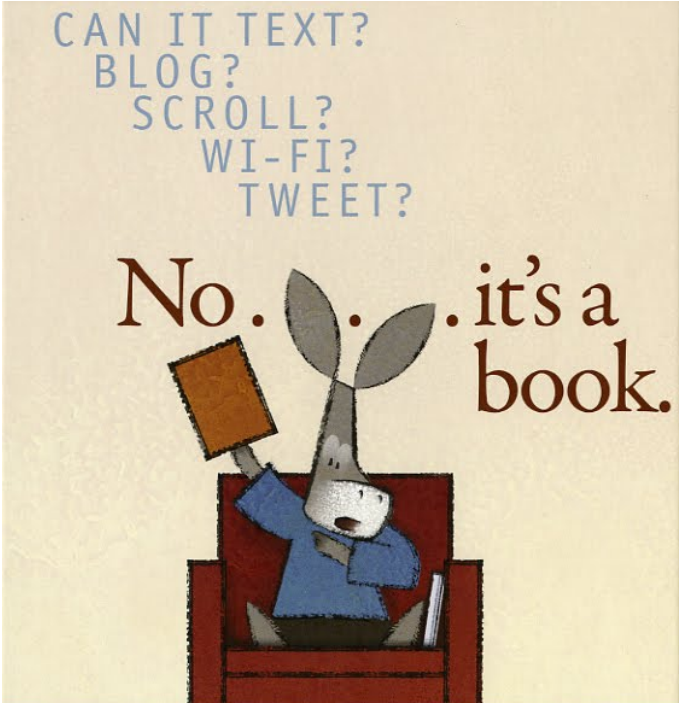


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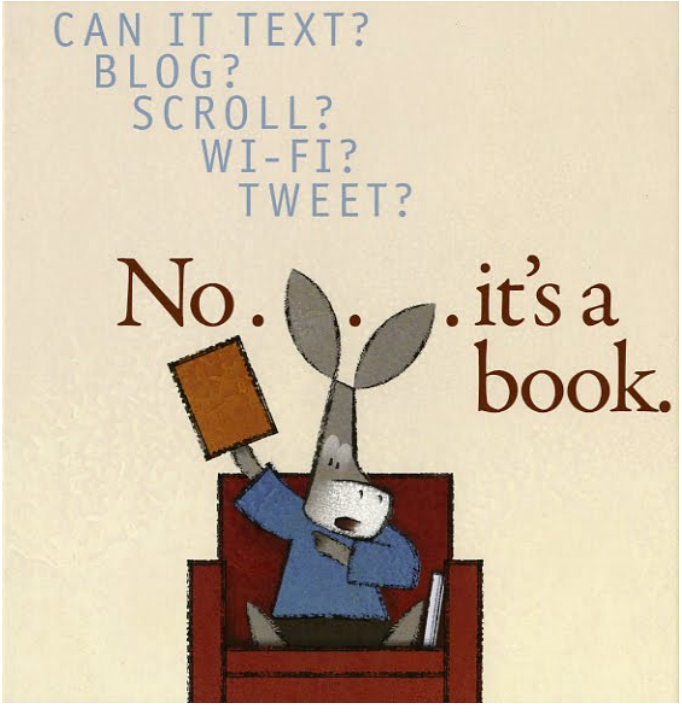


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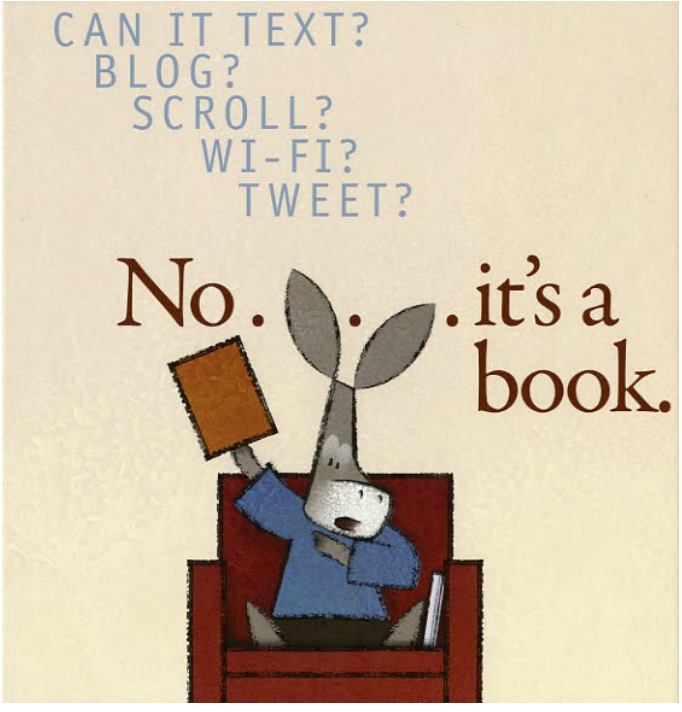


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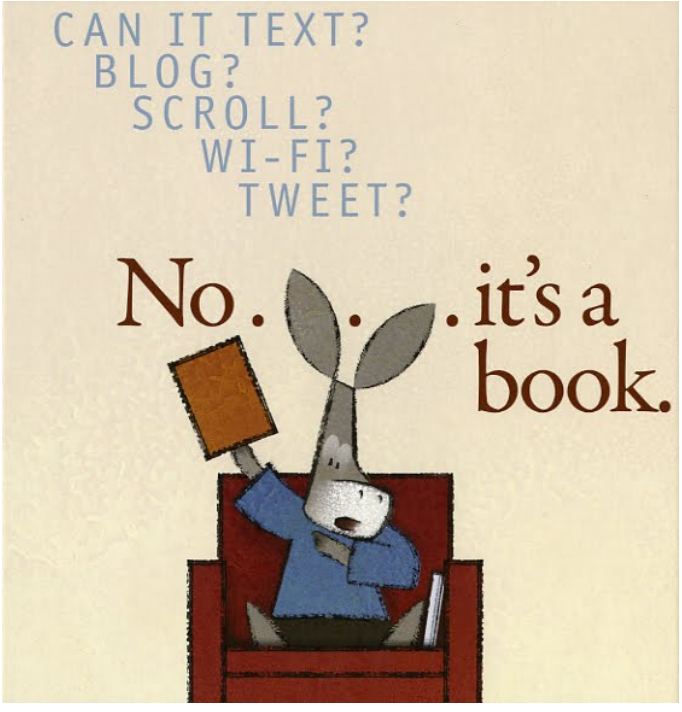


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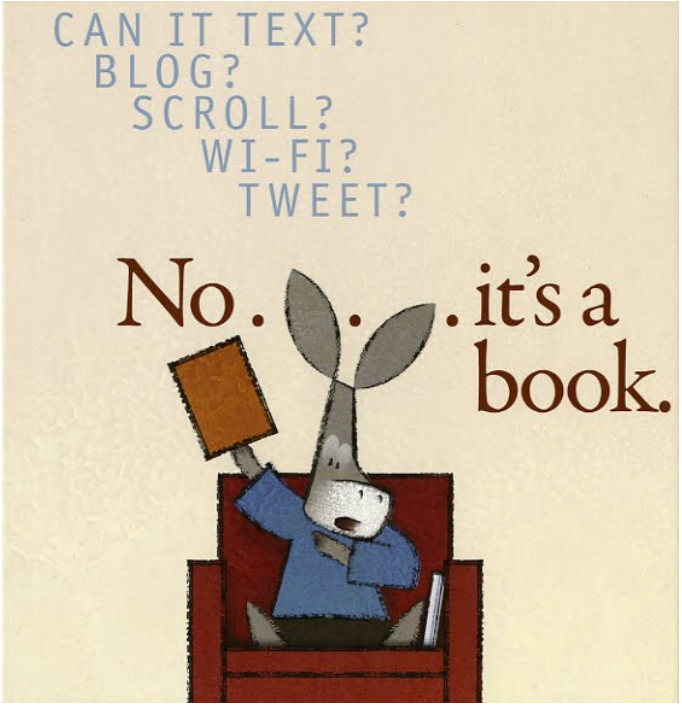


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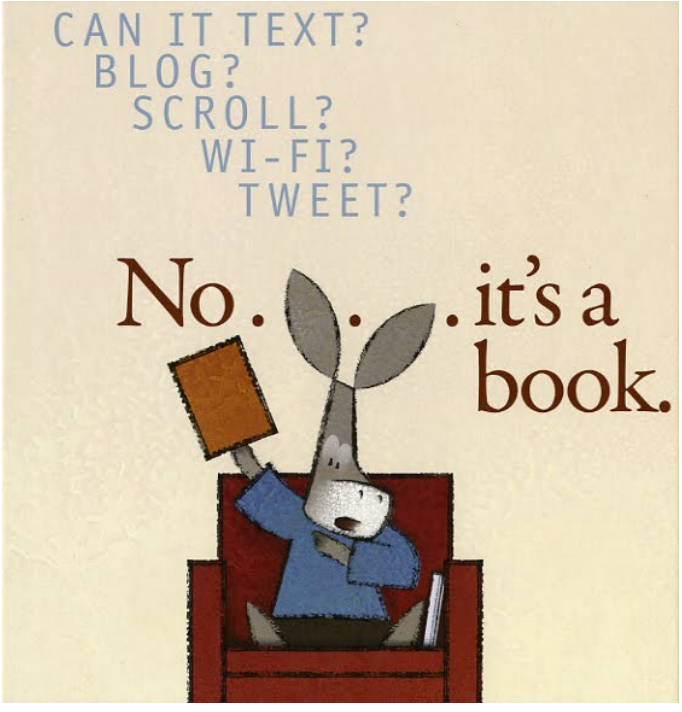


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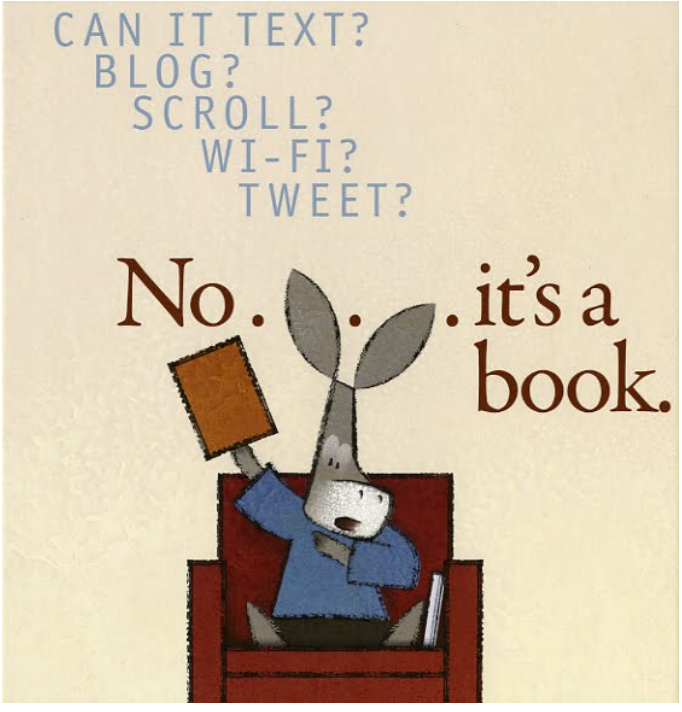


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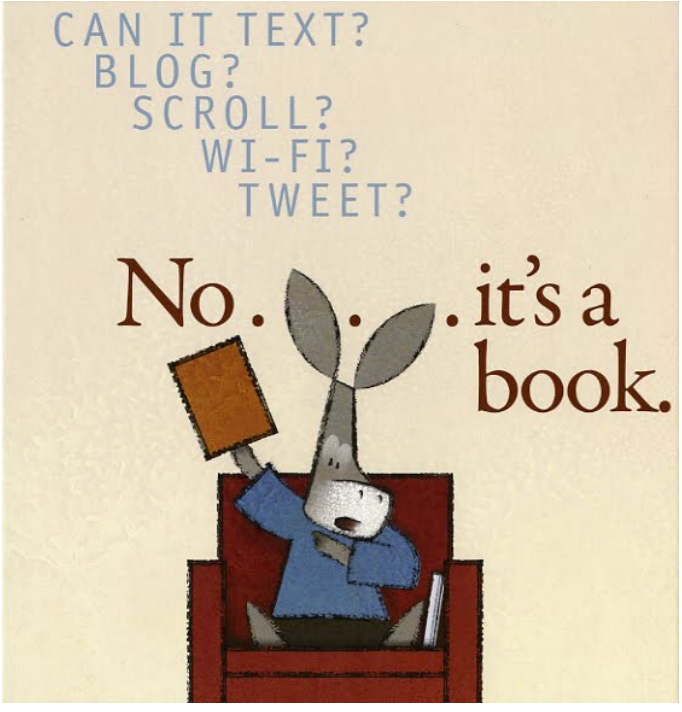


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It has to be simple. You know books. Don't you?

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# This is a book…

Sächsische Akademie der Wissenschaften zu Leipzig

Herzog August Bibliothek Wolfenbüttel

## Die Deutsche Akademie des 17. Jahrhunderts Fruchtbringende Gesellschaft

Kritische Ausgabe der Briefe, Beilagen und Akademiearbeiten (Reihe I), Dokumente und Darstellungen (Reihe II)

Im Auftrag der Herzog August Bibliothek herausgegeben von Martin Birchner und Klaus Conermann

Reihe I, Abt. A: Köthen, Abt. B: Weimar, Abt. C: Halle

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| | |
|---|---|
| **PPN:** | 741186039 Zitier |
| **Titel:** | Die Deutsche Akademie des 17. Jahrhunderts Fruchtbringende **Gesellschaft** : kritische Ausgabe **der Briefe,** Beilagen und Akademiearbeiten (Reihe I), Dokumente und Darstellungen (Reihe II) / begr. von Martin Bircher und Klaus Conermann. Im Auftr. **der** Sächsischen Akademie **der** Wissenschaften zu Leipzig, in Kooperation mit **der** Herzog-August-Bibliothek Wolfenbüttel hrsg. von Klaus Conermann<br>Reihe 1: Kritische Ausgabe **der Briefe,** Beilagen und Akademiearbeiten<br>Abt. A: **Briefe der Fruchtbringenden Gesellschaft** und Beilagen: die Zeit Fürst Ludwigs von Anhalt-Köthen 1617 - 1650 |
| **Teil:** | Bd. 6: 1641 - 1643 / unter Mitarb. von Gabriele Ball ... hrsg. von Klaus Conermann |
| **Sonst. Personen:** | Conermann, Klaus ; Ball, Gabriele *1959-* ; Bircher, Martin *1938-2006* |
| **Körperschaft:** | Fruchtbringende **Gesellschaft** |
| **Ort/Jahr:** | Berlin [u.a.] : de Gruyter, 2013 |
| **Umfang:** | 880 S. : Ill. |
| **Andere Ausgabe:** | Other edition available: Online-Ausg. |
| **Anmerkung:** | Literaturverz. S. [41] - 103 |
| **ISBN:** | 3-11-032294-3, 978-3-11-032294-1 |
| **Klassifikation:** | Dewey Decimal Classification: 430<br>Basisklassifikation: 02.01 (Geschichte **der** Wissenschaft und Kultur) ⌘ \| 02.14 (Organisation von Wissenschaft und Kultur) ⌘ \| 17.98 (Textsammlungen) ⌘ \| 18.10 (Deutsche Literatur) ⌘ |
| **Mehr zum Titel:** | Inhaltstext |

GBV S·F·X

zugehörige Publikationen

(Die deutsche Akademie des 17. Jahrhunderts: Fruchtbringende Gesellschaft. Reihe I, Abt. A: Köthen, Bd. 1. Wolfenbüttel/ Tübingen 1992)

Herzog August Bibliothek - Wolfenbüttel 2014

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DESY

# Data model: a librarians viewpoint

A bibliographic data model is a major undertaking

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"A new model" has to raise major concerns...

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# Invenio 2.x requirements

- Use OpenSource community code (e. g. programming frameworks)
- Stricter modularization
- Allow for more than one internal format (aka data model)
- Employ data validation
- Use modern data handling
- Use interlinking and expansions
- Use a modern serializtion (JSON instead of XML)
- Simple hook up with external services (Elastic Search)

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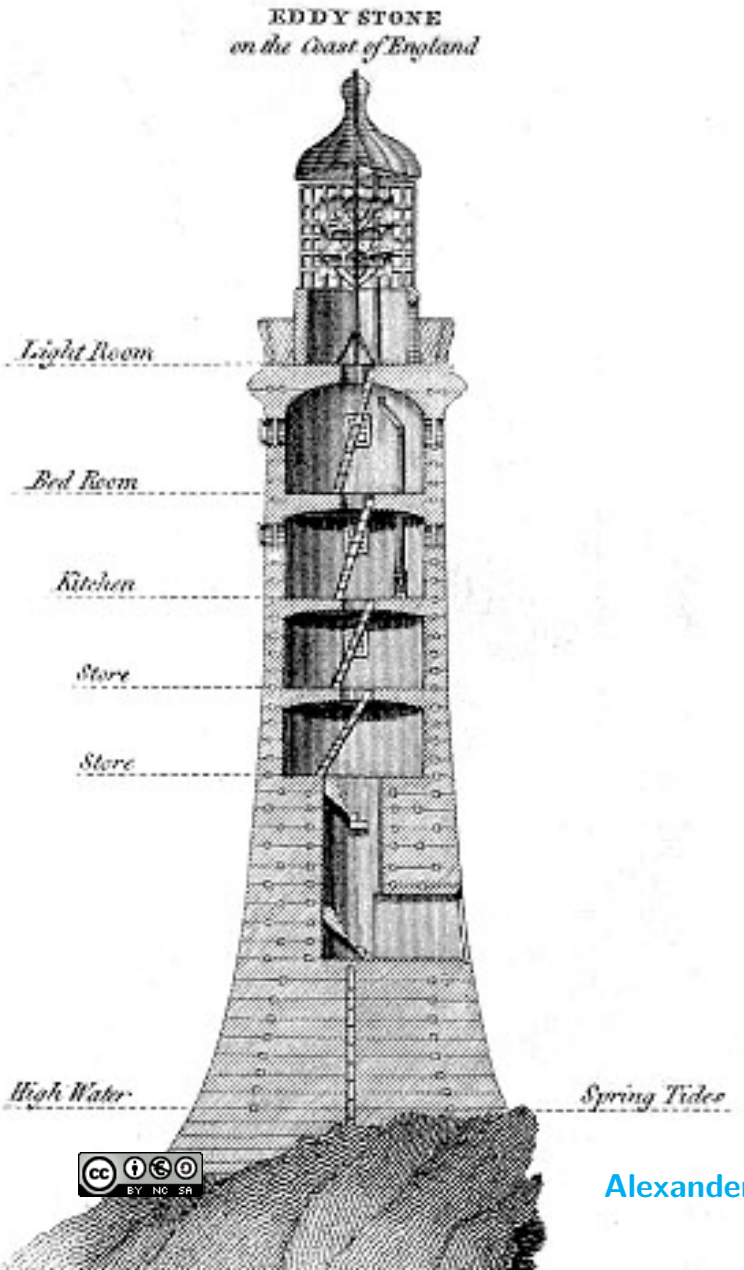
# Concerns @ JOIN$^2$

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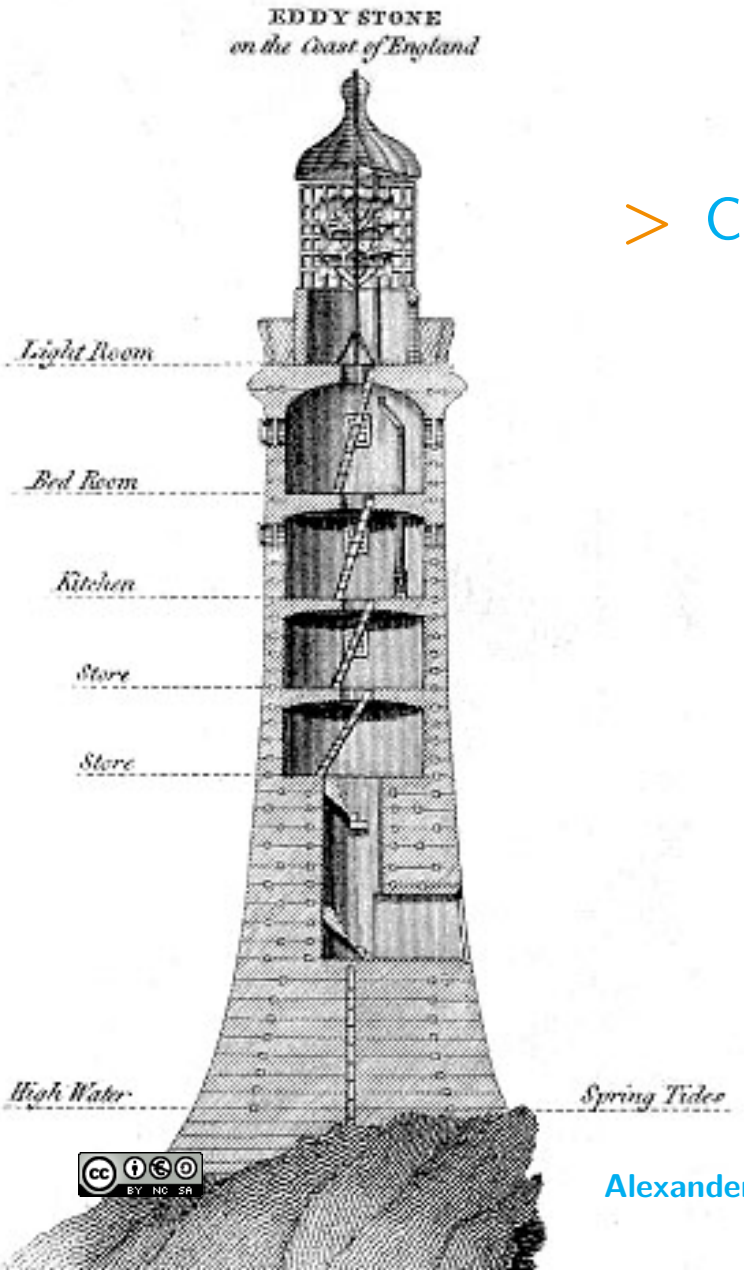


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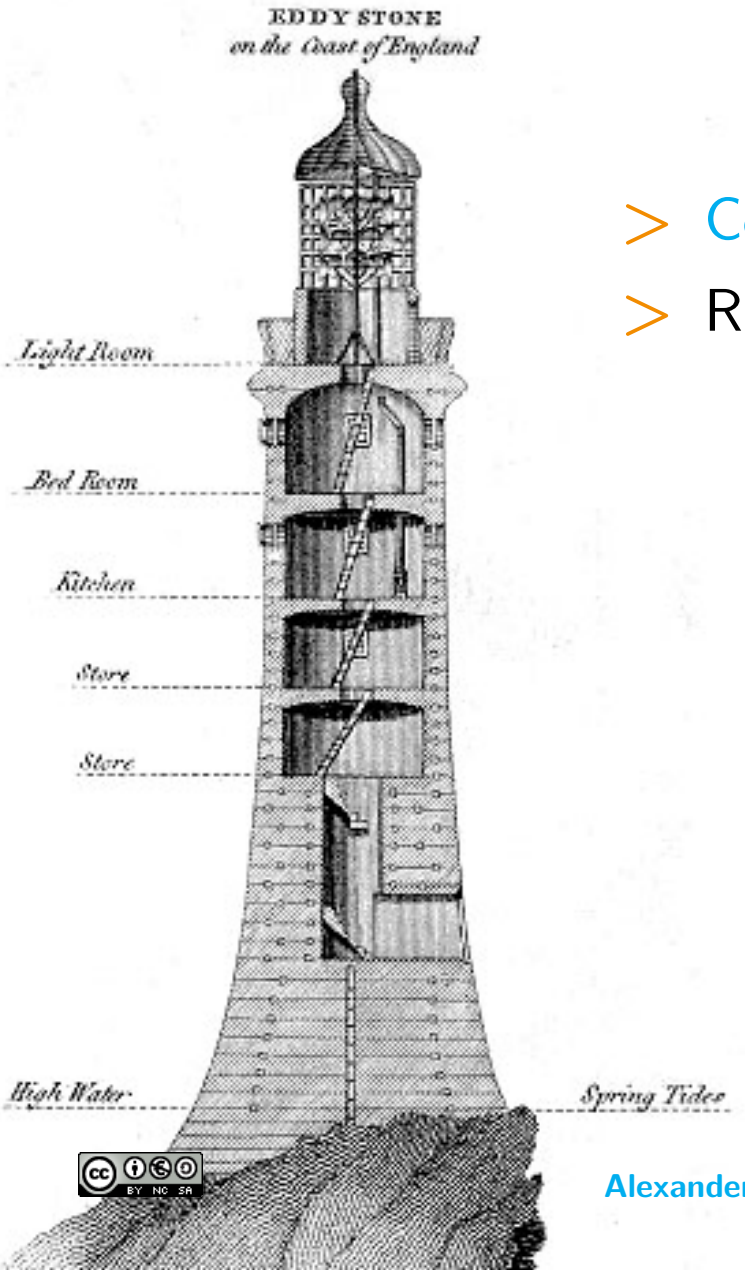


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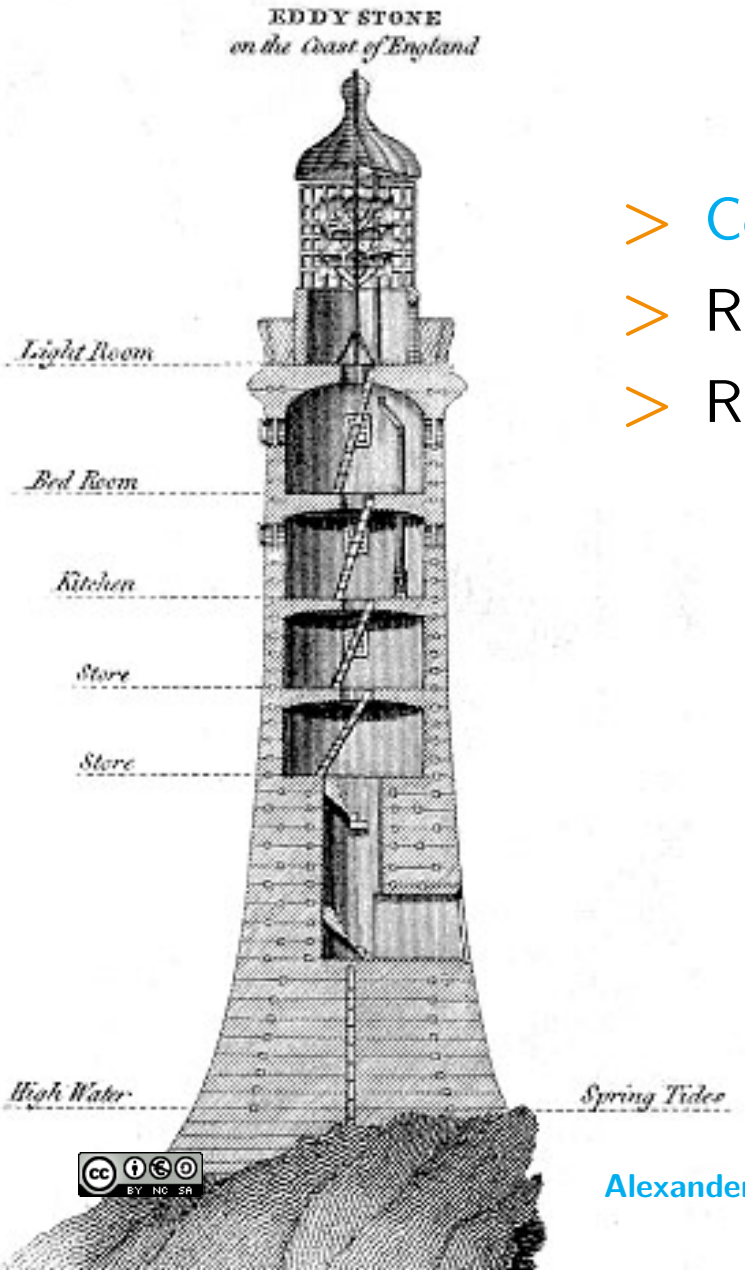


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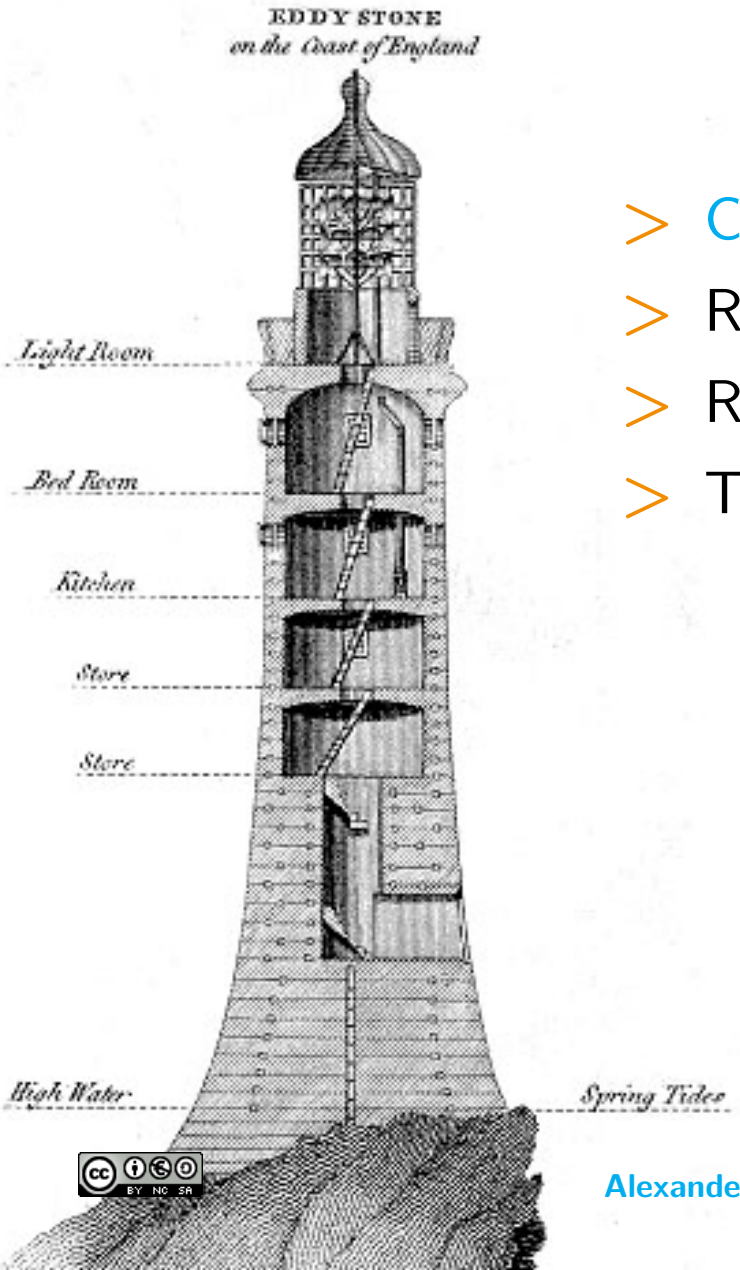


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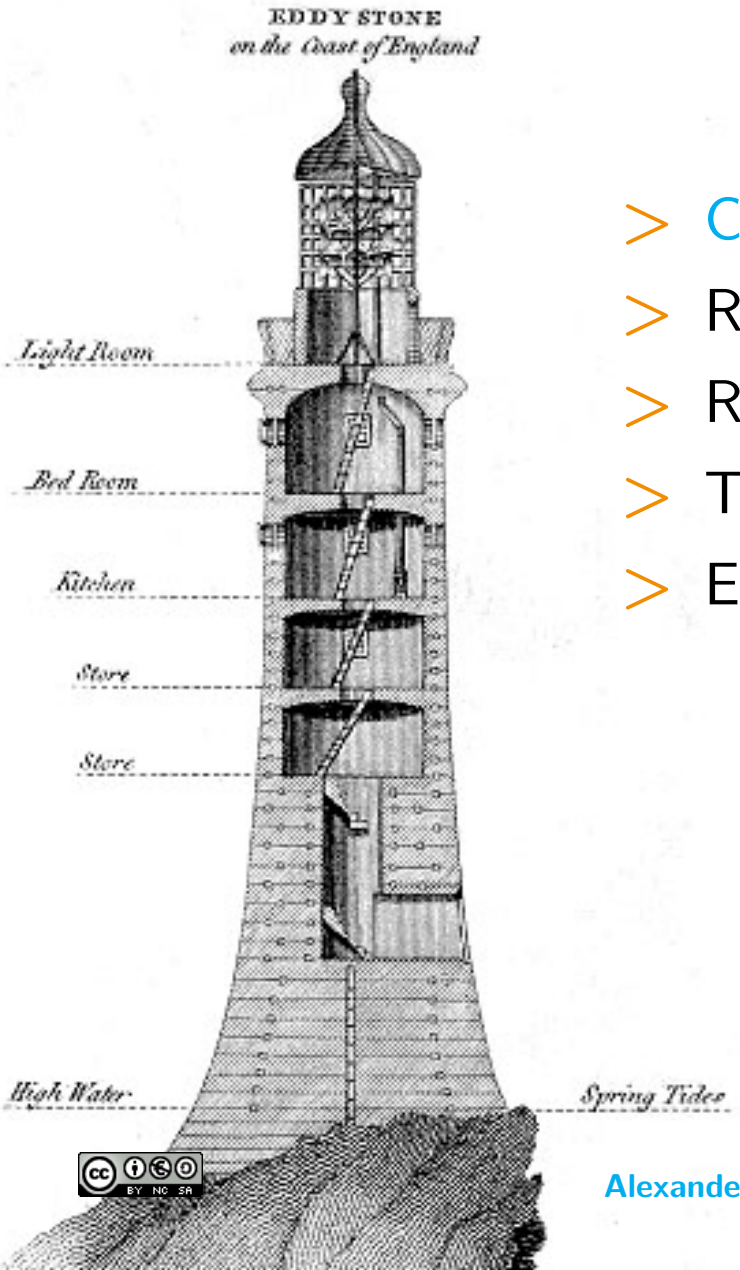


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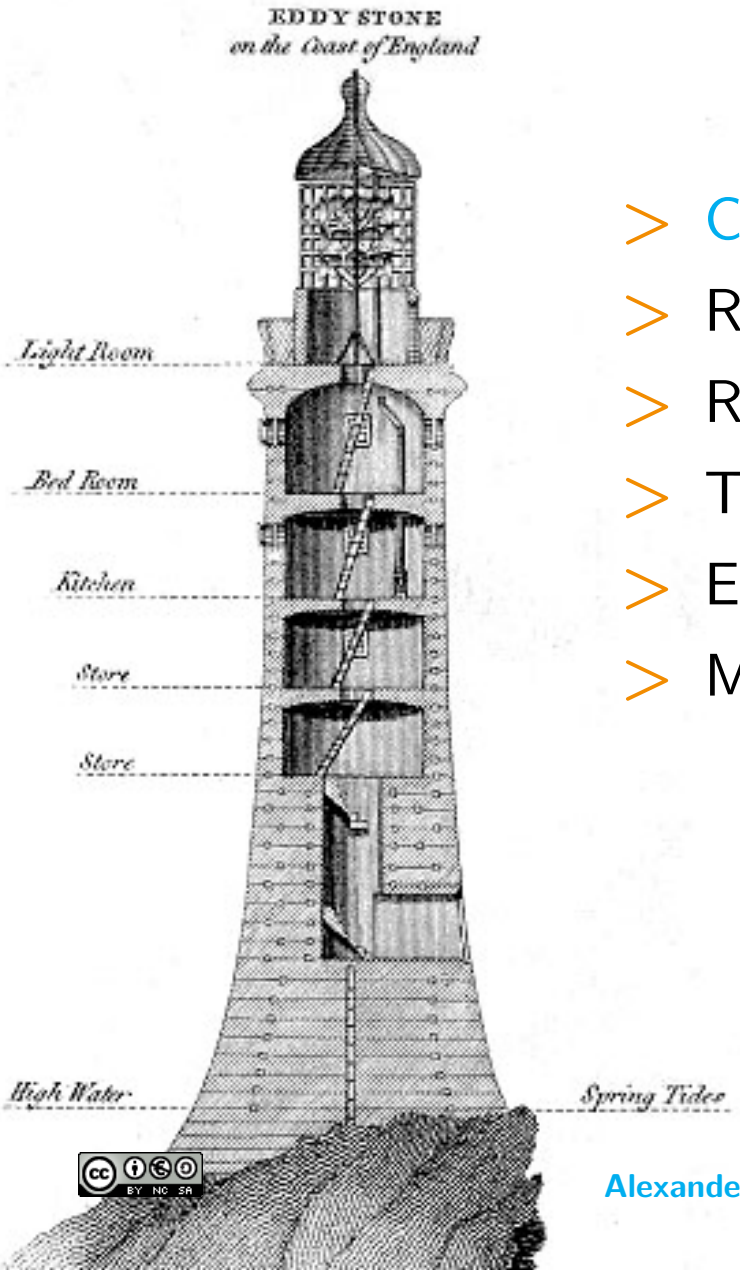


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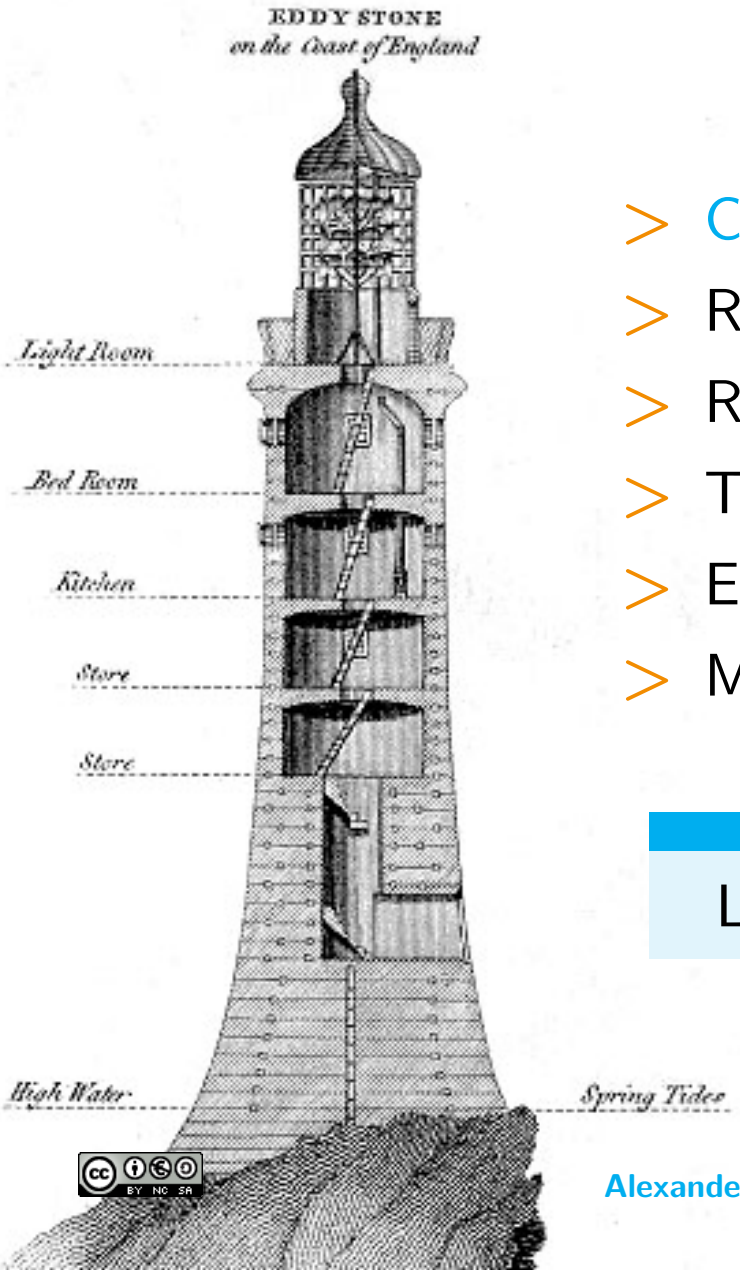


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Living on a light house is not desirable

# Addressing librarians concerns – `doJSON()`

- Marc21 available as one datamodel (serialized in JSON instead of XML)
- Covers all fields, subfields and indictators to the letter
- `doJSON()` and `undoJSON()` (1:1 mapping to Marc21)

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**Fellow librarians!**

Do check mapping for Marc21!

Marc21 strict should be perfect. A liberal scheme can then be derived.

`doJSON()` Marc Schema on github

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# Addressing librarians concerns – `doJSON()`

Still missing:

- Marc Authority (issue #7)
- Marc Holdings (issue #21)
- `bibedit` (check with iNSPIRE)

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Please contribute!

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Please contribute!

Still difficult:

- `enum` in data model (maintainability)
- "Human readable names" (longish, and every cataloguer knows 245__a, cf. #35)
- Migration of current records + history (legacy data may not validate)

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# Thank you!

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