# An unbroken chain

Approaches to implementing Linked Open Data in libraries

Comparing local, open-source, collaborative and commercial systems

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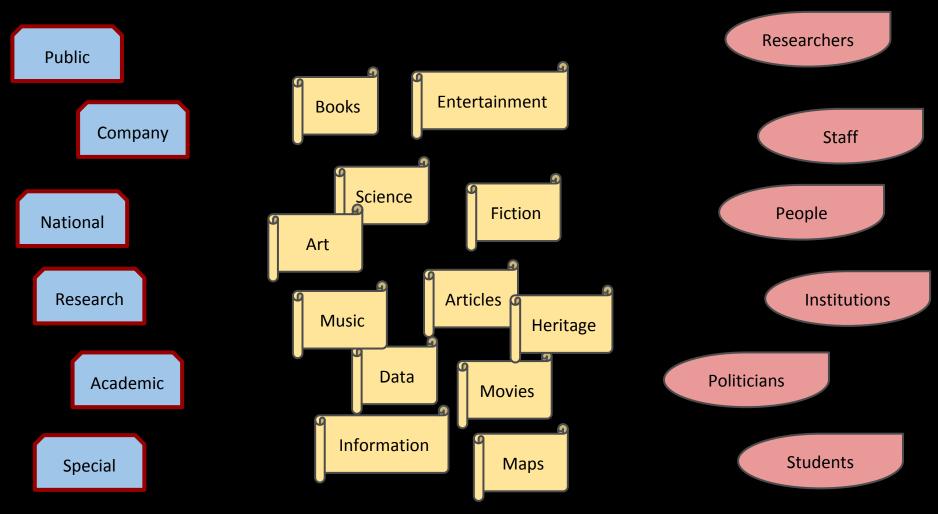
### What we do

[funny pictures of chaos and tools and despair]

Rurik Thomas Greenall works at NTNU, the Norwegian university of science and technology with software development. The major foci for this work are REST, LOD and Web APIs. His work typically integrates components familiar from the Web and linked-data stacks as well as elements from more traditional library systems. As of August 2014, Greenall will be a member of staff at Computas AS, an IT consultancy, where he will work with semantic Web applications. He will work with Oslo public library's development team, on behalf of Computas.

As Library System Coordinator, Lukas Koster deals with commercial systems used by the Library of the University of Amsterdam for their core library workflows and functions. These systems are provided by Ex Libris: Aleph ILS, SFX Link Resolver, Primo Discovery Tool, bX Recommender Service. These systems are highly customized by local staff to fulfill local requirements. The Library of the UvA also uses a number of Open Source tools for other functions, among others, developing their own repository systems. Lukas Koster has been active in the independent International Group of Ex Libris Users IGeLU, most recently as coordinator and member of the Linked Open Data Special Interest Working Group which is working with Ex Libris to implement LOD features in their systems.

# Libraries: types, content, audiences



## Libraries and the Web



Business as usual





# **About Linked Open Data**

**RDF** 

Open licence/world

HTTP-URIS

Linked

Of the Web, not on the Web

### **LOD** management options

Original RDF

Mapping (On the fly)

ETL (Extract Transform Load)

Issues with legacy data: strings, not things

# **Objectives for library LOD**

Cataloguing/CREATING

**Exposing** 

Consuming

## **Content and systems**

Content: "Open Data"

Systems: "Linked Data"

"Legal" access

"Actual" access

Currently: no access, no policy

Currently: separate dedicated systems/silos

# Lifecycle planning

Plan-Do-Check-Act

Plan-Design-Implement-Test-Deploy-Maintain

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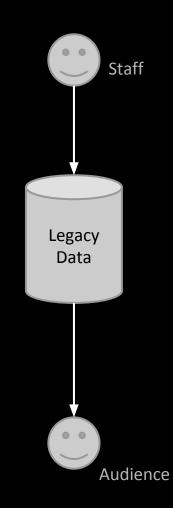
Use cases

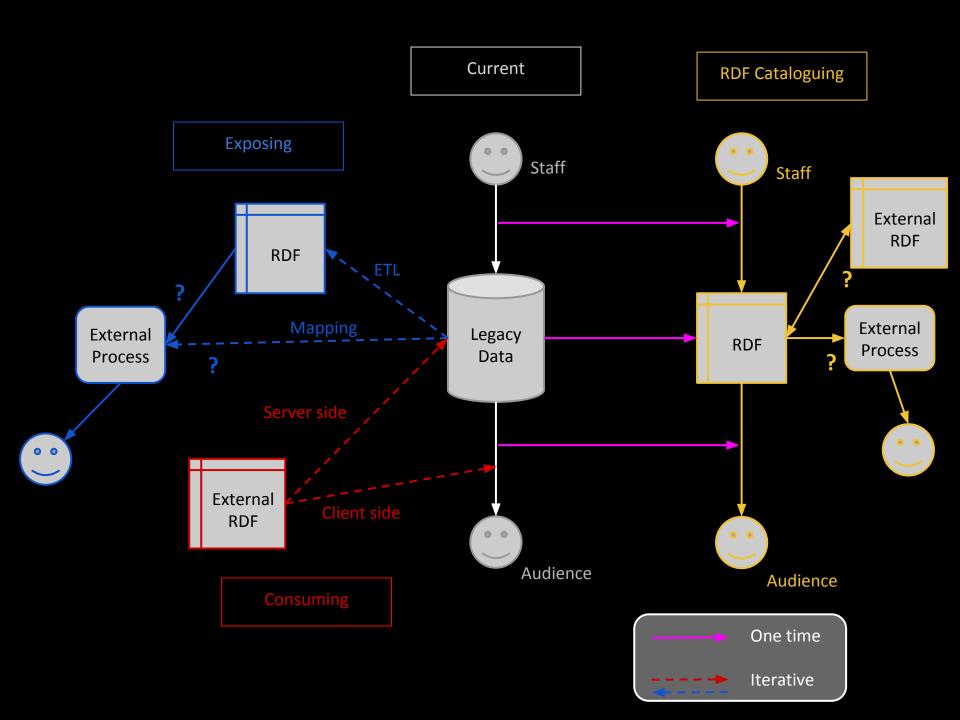
**Standards** 

Support

Community

Adapt





## Cataloguing/CREATING LOD

What: Data/metadata

Why:

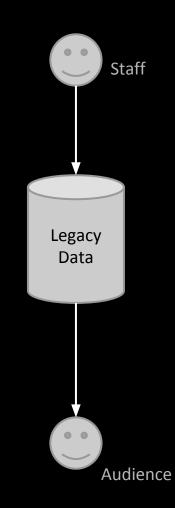
How: Original RDF

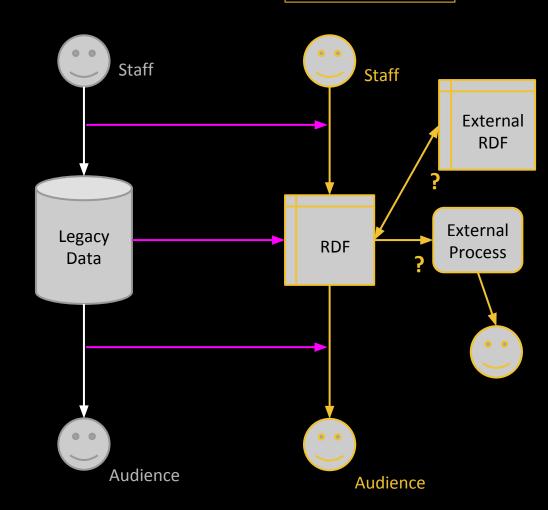
Local/FOSS: Complicated - Lifecycle planning

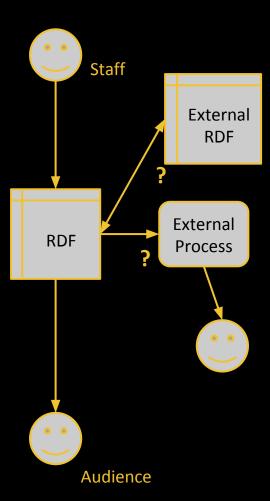
Consortia: Between local development, commercial

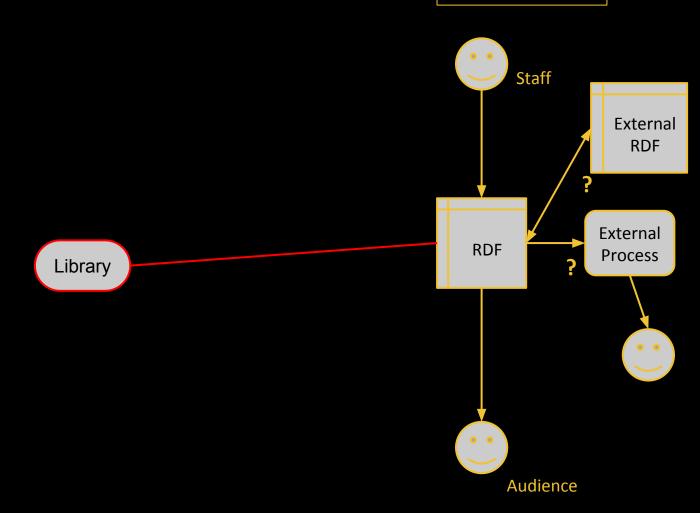
systems

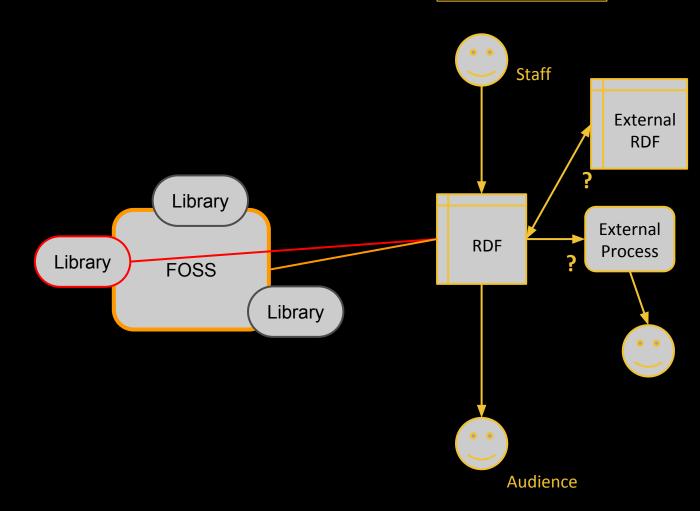
Commercial vendors: Waiting for BIBFRAME et al.

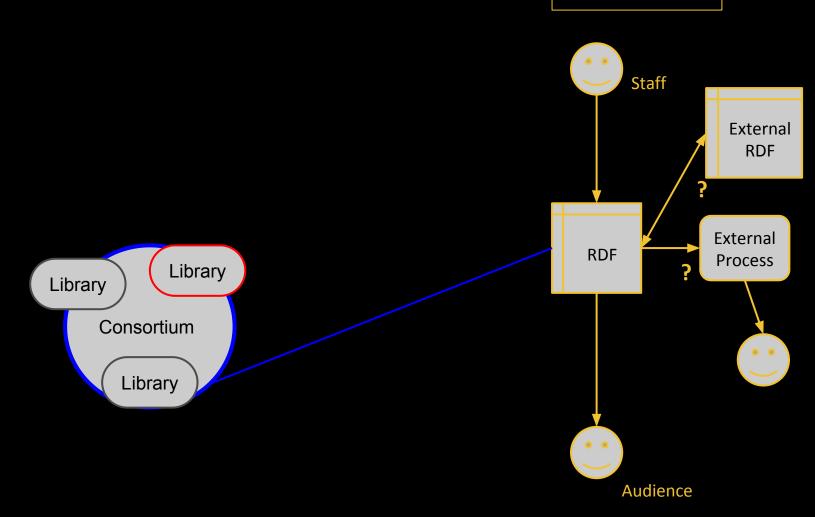


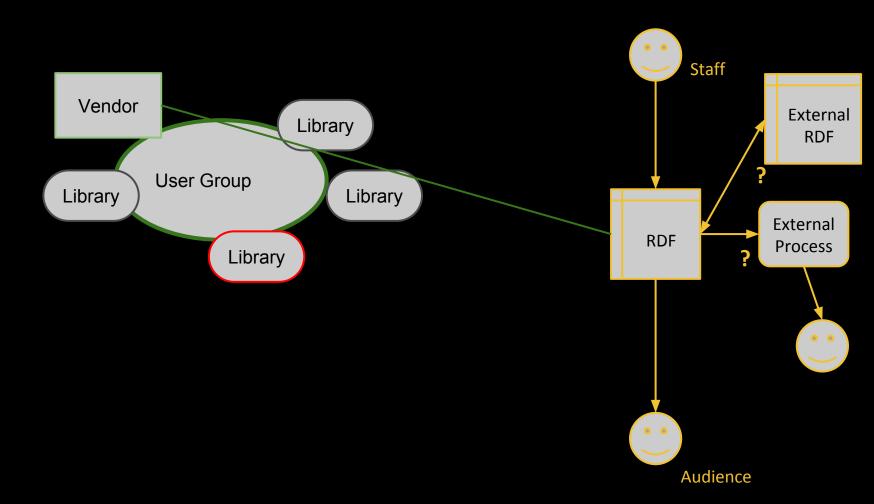


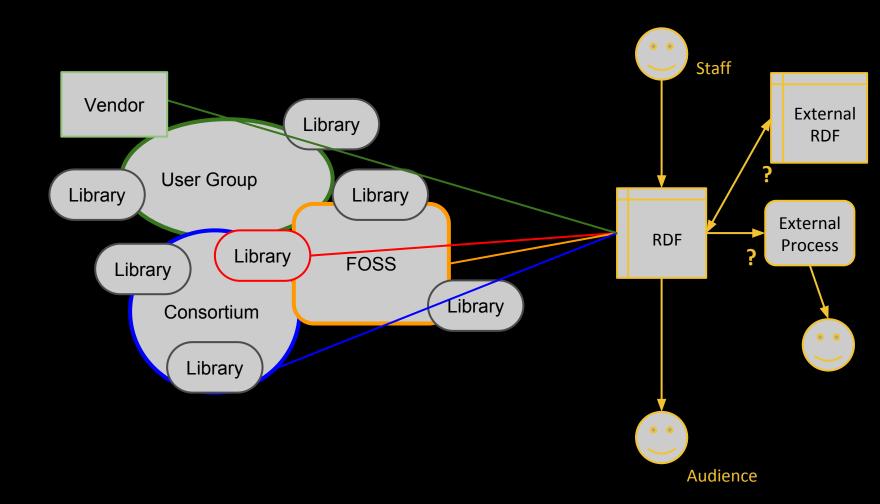












## **Exposing LOD**

What: Local data/metadata

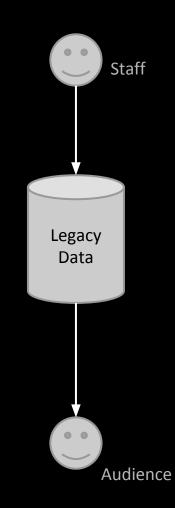
Why: To be used

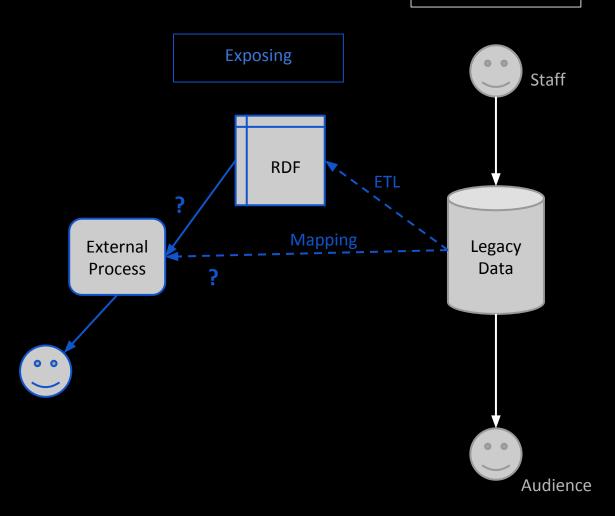
How: Export, Sparql, mapping

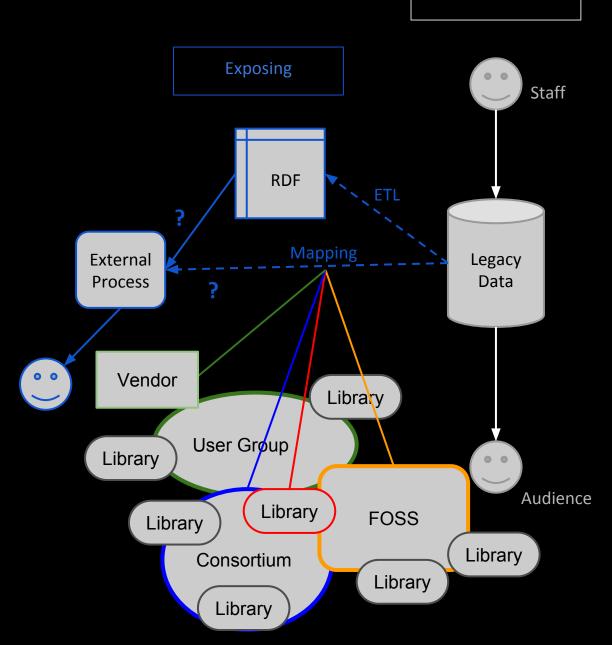
Local/FOSS: Frequently done

Consortia: Frequently done

Commercial vendors: First steps







### **Consuming LOD**

What: Enriching local data with external data

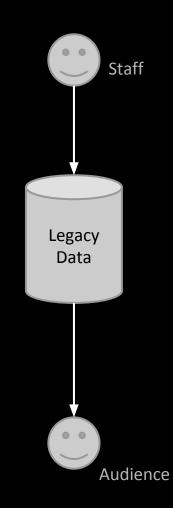
Why:

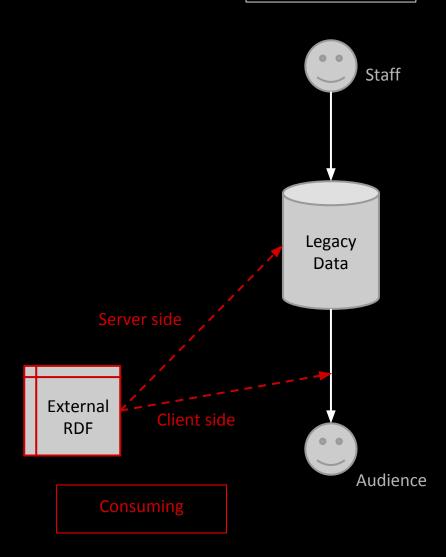
How: Query/Dereference/Embed

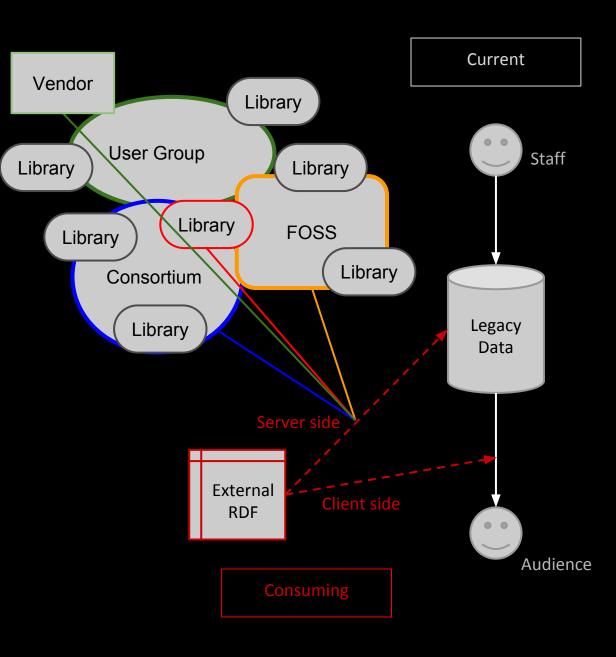
Local/FOSS: Diverse

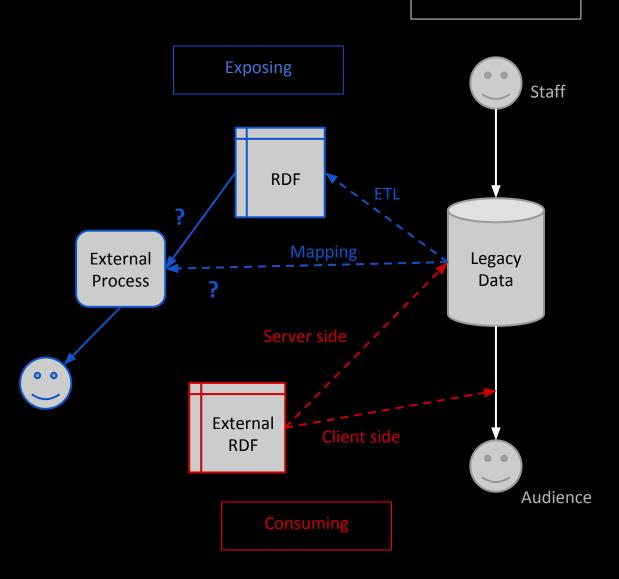
Consortia: Diverse

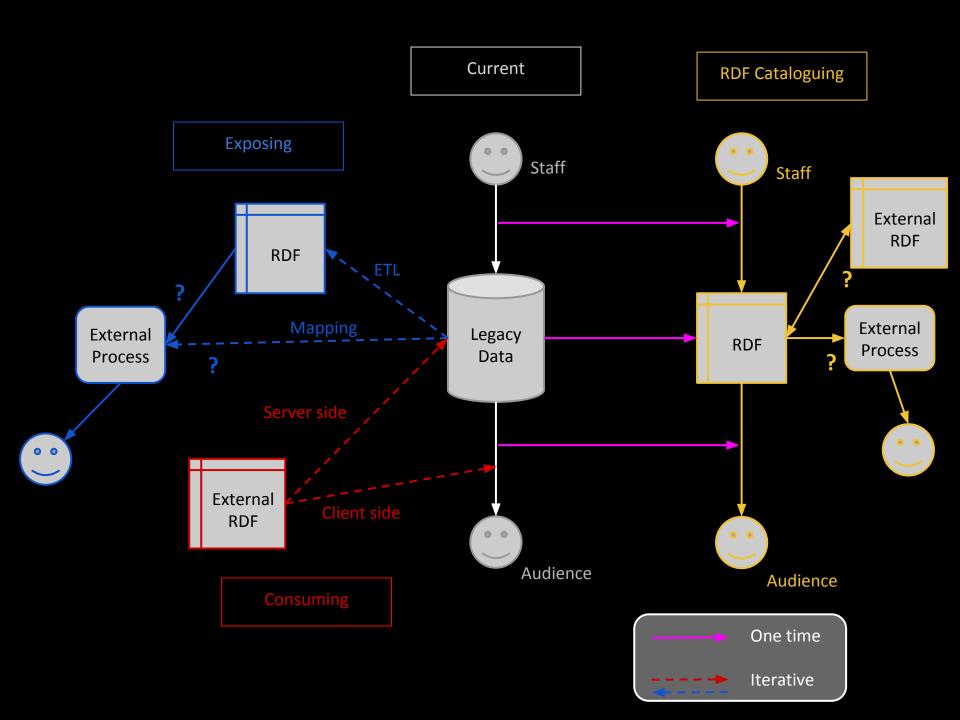
Commercial vendors: Not really











# **Reconciling approaches**

**Fulfillment** 

Timeframe

User base

## Conclusions, recommendations

Did we mention Lifecycle planning?
Standards
Community