



DCAT-AP

Exchanging metadata

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Agenda

- History lessons
- Exchanging metadata
- DCAT / DCAT-AP
- Tools and resources
- Homework
- Questions ?



Belgian Constitution (1831), art.32

**EVERYONE HAS THE RIGHT TO CONSULT
ANY ADMINISTRATIVE DOCUMENT
AND TO OBTAIN A COPY,
EXCEPT IN THE CASES AND CONDITIONS
STIPULATED BY THE LAWS,
FEDERATE LAWS OR RULES
REFERRED TO IN ARTICLE 134.**

Mundaneum (ca. 1920)



By fdecomite - Flickr: Drawers, CC BY 2.0, <https://commons.wikimedia.org/w/index.php?curid=15888697>



Exchanging metadata

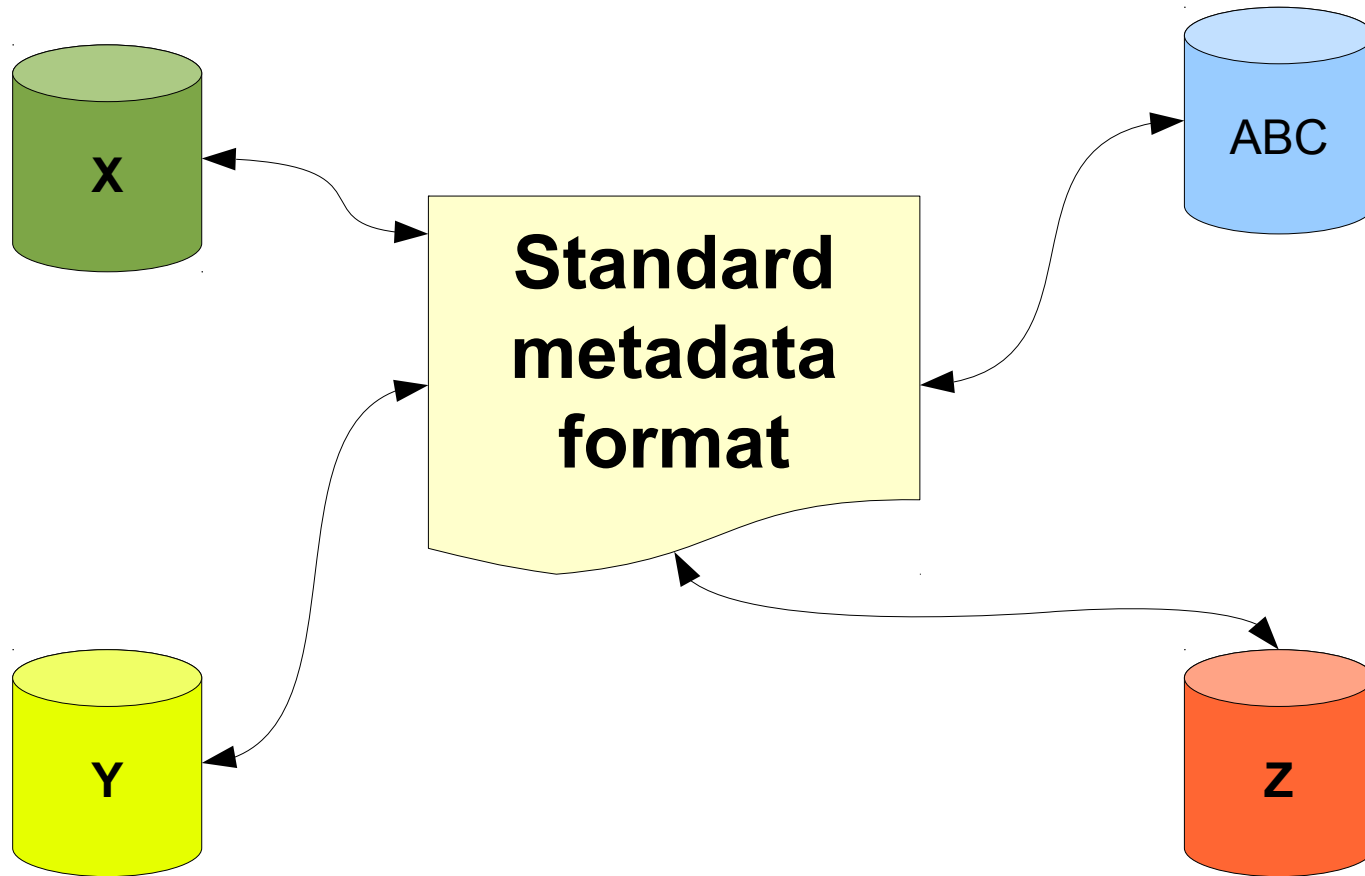
It's not rocket science



Everyone loves portals, right ?

- **Because there are so many of them ...**
 - Administrations: local / regional / federal / EU ...
 - Sector / type: biodiversity, geo, statistics, ...
- **... powered by different platforms**
 - CKAN, DKAN, OpenDataSoft, TheDataTank, ...

Interoperability





DCAT and DCAT-AP

(Not) reinventing the wheel



What is DCAT ?

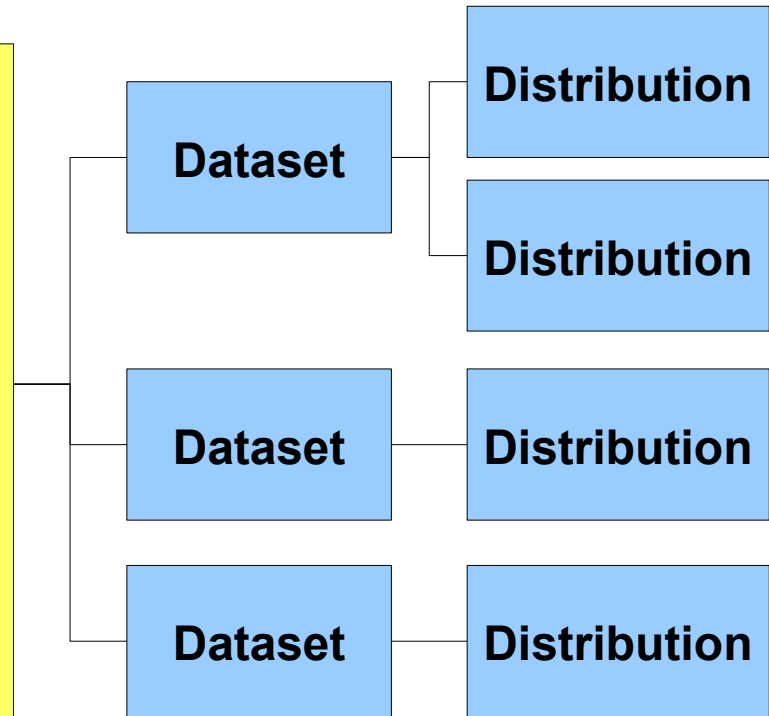
- “Data CATalog”
- **Metadata (only)**
 - Title, language, description...
 - Based on earliest US / UK / NZ ... open data portals
- **International specification**
 - Originally (2010) developed by DERI university
 - Now maintained by W3C
- **It is NOT an API / data format / silver bullet**

Reuses existing specifications

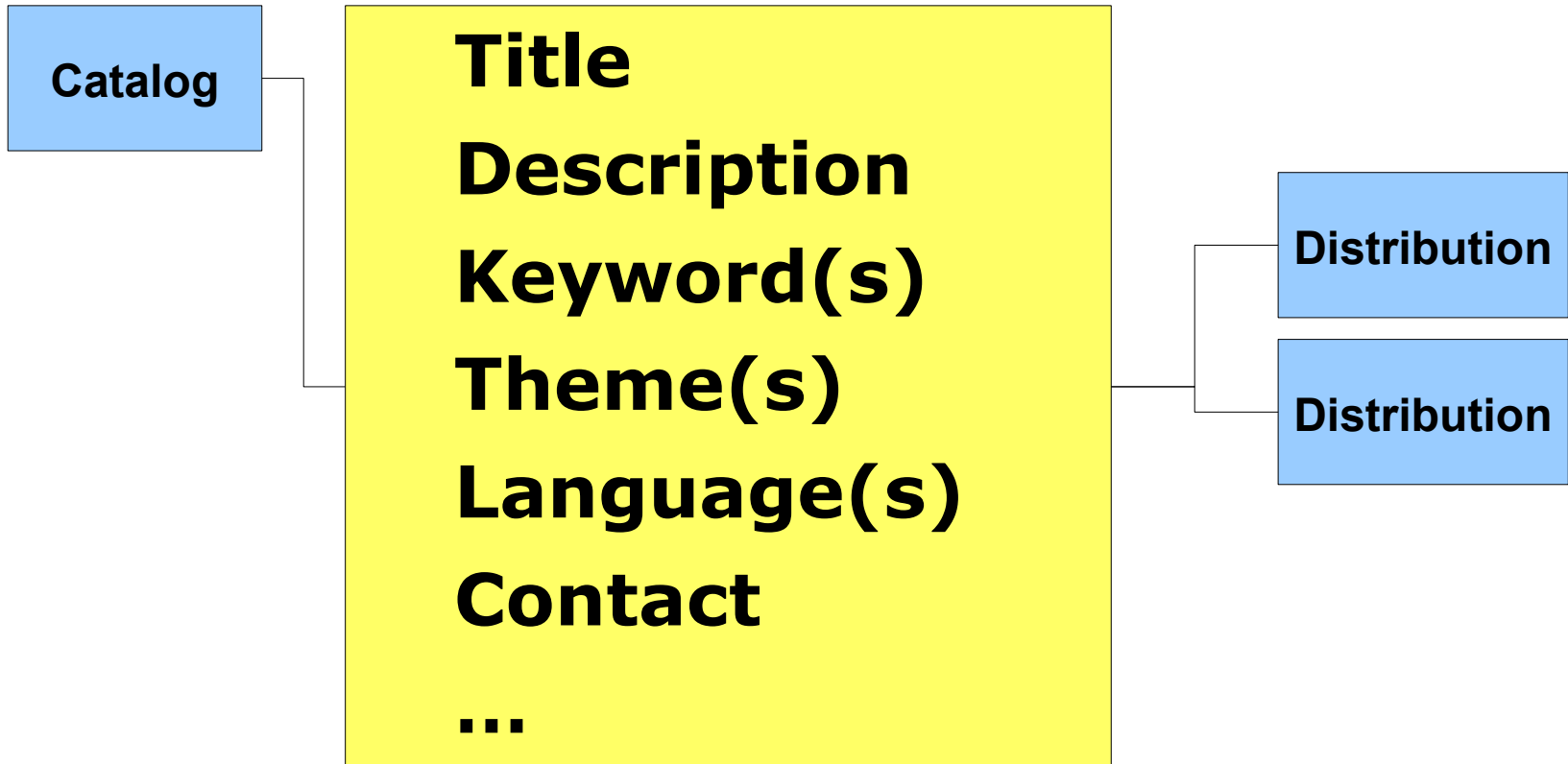
- **RDF vocabulary**
 - Cool => linked open metadata !
- **Reuses other well-known RDF vocabularies**
 - Dublin Core metadata, FOAF, SKOS
 - vCard in RDF
 - (SDMX, ADMS)

DCAT Catalog (~ portal)

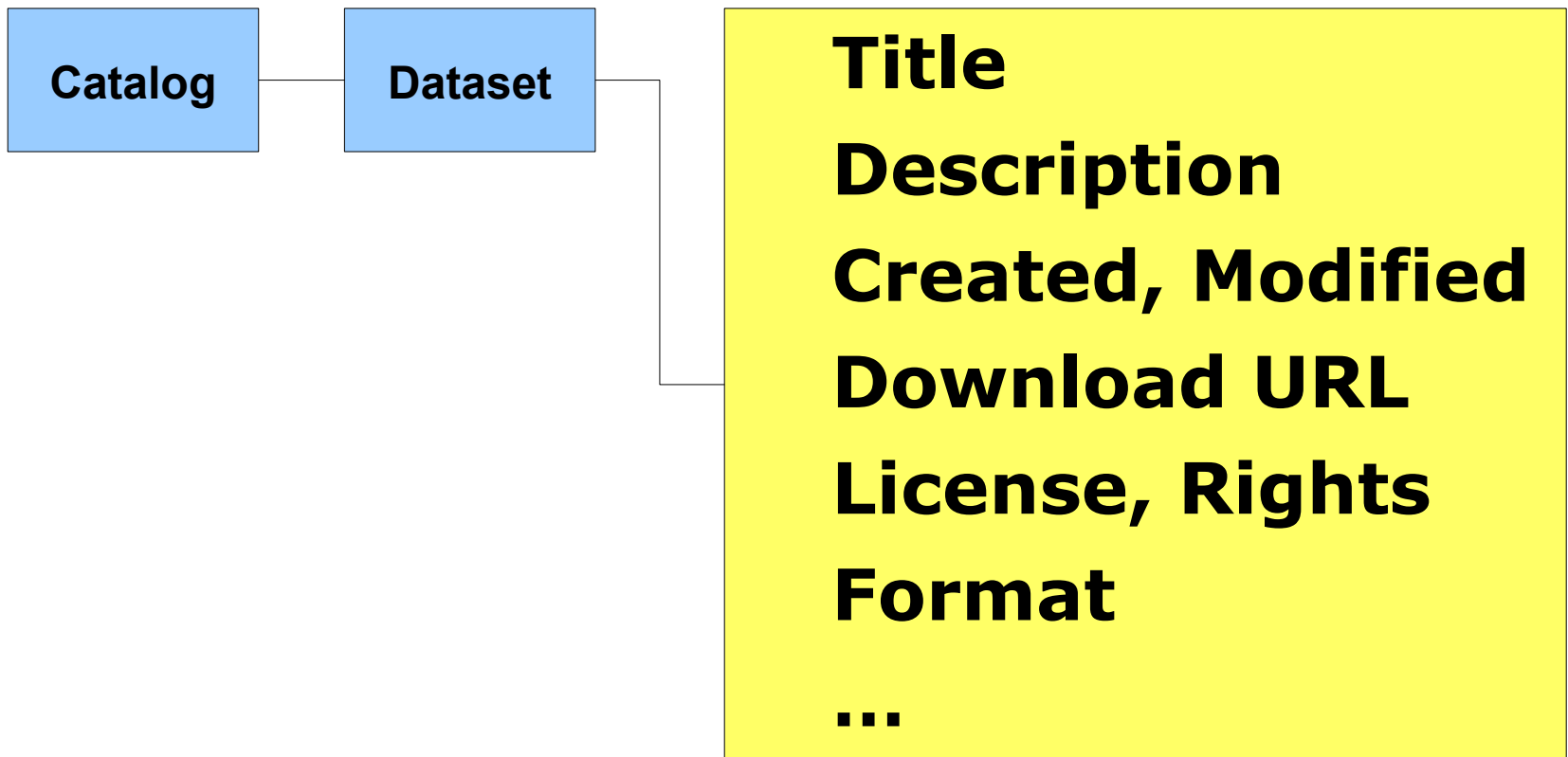
Title
Description
Homepage
Geo area
Publisher
...



DCAT Dataset



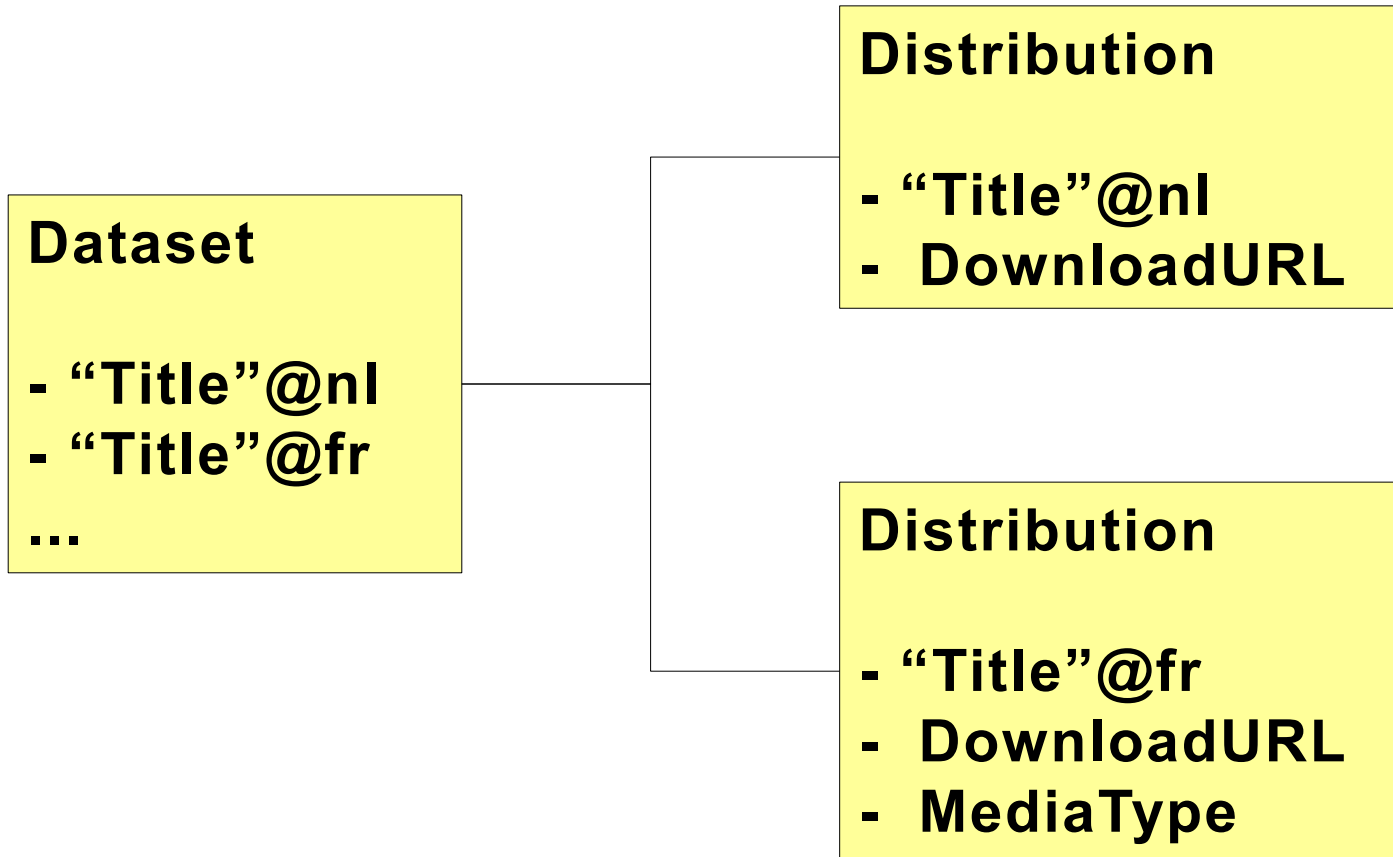
DCAT Distribution (~download)



What is DCAT-AP ?

- **DCAT “Application Profile”**
 - Stricter than DCAT
 - Mandatory / recommended properties
 - Maintained by (mainly) EU experts on JoinUp
- **Optional status, language on Distribution**
- **Controlled lists / vocabularies**
 - Categories, languages, file types, geonames ...

DCAT-AP: languages in Distribution



More profiles / extensions ...

■ GeoDCAT-AP

- Does not replace (EU Directive) INSPIRE metadata !
- A lot of structured metadata already available
- Mapping + XSLT conversion tool

■ StatDCAT-AP

- Eurostat, IMF, OECD... use SDMX format for statistics
- Mapping + conversion tool to be developed

A note on GeoDCAT-AP

- **Covers ISO 19115 core + INSPIRE metadata**
 - Mapping AGROVOC / GEMET / INSPIRE themes
- **XSLT script**
 - Converts ISO 19139 XML metadata to GeoDCAT-AP
- **Open source CSW API (experimental)**




Homework

Left as an exercise for the publisher




Your categories or mine ?


BROWSE TOPICS




Agriculture




Business



Climate



Consumer



Ecosystems

Browse datasets by subject or groups



Employment and working conditions



Social questions



Economics



Finance

Data

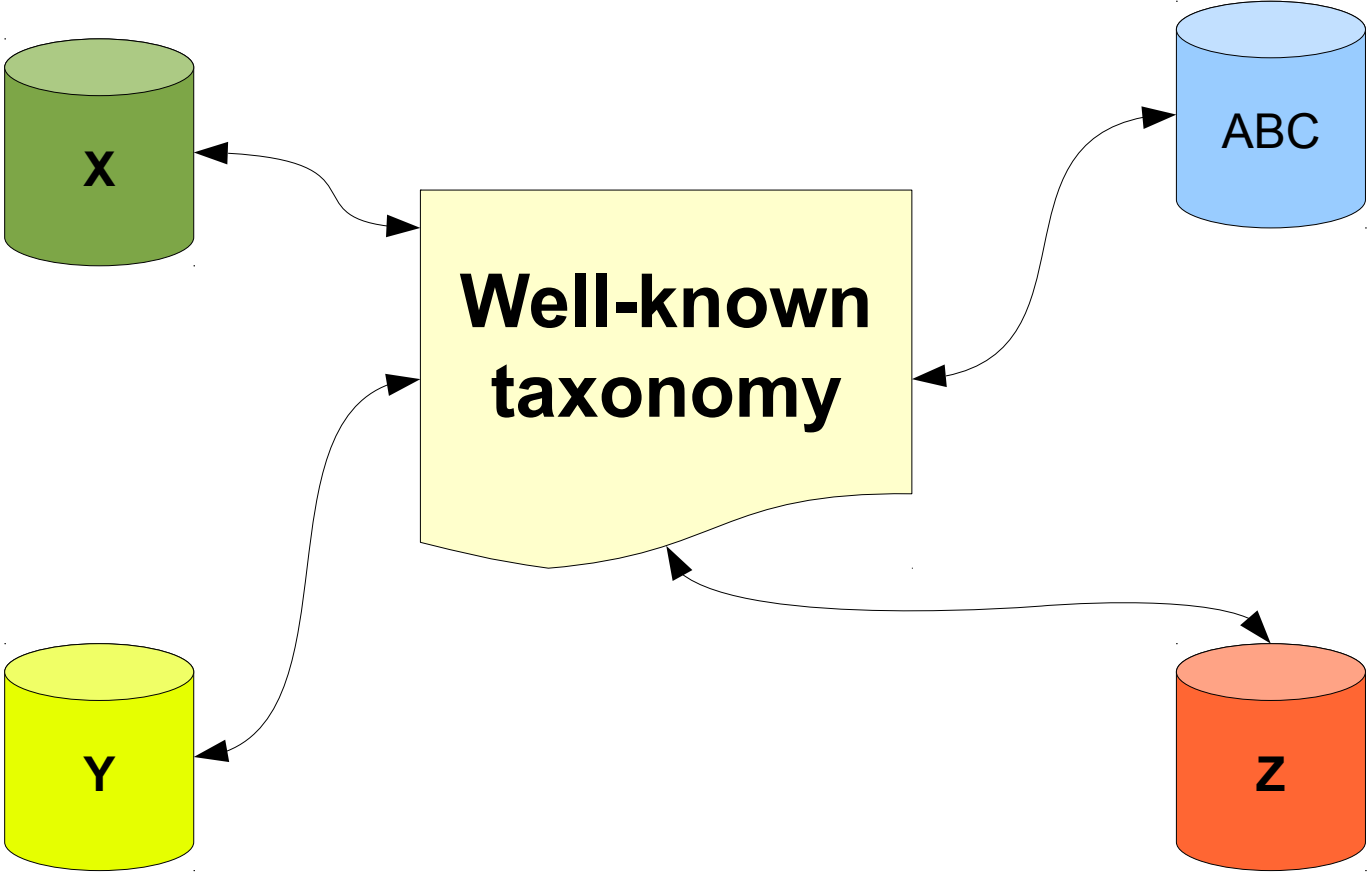


Economy
Economic performance and business statistics.



Health
Health statistics from Public Health.

Interoperability (again)



Map and publish !

- **No need to give up your own taxonomies**
 - Map your keywords/categories to known vocabularies
- **SKOS is your friend**
 - RDF vocabulary for controlled lists, taxonomies ...
 - “Simple”: exactMatch, closeMatch, altLabel...
- **Publish mappings as open data**
- **Taxonomies for update frequency, location...**
 - dcterms:accrualPeriodicity, dcterms:spatial
 - dcat:mediaType

Missing in action / work in progress

- **Identifiers for (republished) datasets ...**
 - E.g. “harvested” metadata, plain old websites...
- **Roles**
 - “creator”, “publisher”, “portal harvester” ... ?
- **URIs for organisations**
 - Companies, administrations... and smaller units



Tools and resources



Specifications

- **W3C DCAT**

- <https://www.w3.org/TR/vocab-dcat/>

- **DCAT-AP**

- https://joinup.ec.europa.eu/asset/dcat_application_profile/description

- **Geo / Stat DCAT-AP**

- https://joinup.ec.europa.eu/asset/dcat_application_profile/asset_release/geodcat-ap-v10
- https://joinup.ec.europa.eu/asset/stat_dcat_application_profile/description

Tools

- **CKAN DCAT extension**
 - <https://github.com/ckan/ckanext-dcat>
 - Replaces “old” RDF templates in CKAN 2.5
- **DCAT validators**
 - <https://validator.dcat-editor.com/>
 - <https://github.com/oSoc15/dcat-validator>
- **Drupal Experimental DCAT export**
 - <https://www.drupal.org/project/sdcate>
- **DCAT-AP editor**
 - <https://dcat-editor.com>

Other

- DCAT “fan page”
 - <http://dcat.be>
- EU Publication Office vocabularies
 - <http://publications.europa.eu/mdr/authority/>
- Data.gov.be DCAT dumps / mappings etc
 - <https://github.com/fedict/dcattools>



Questions ?





Thanks !

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