The SyMoGIH project

(Système modulaire de gestion de l'information historique)

and the issue of historical place types

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- Build a collaborative system, with a generic semantic model to produce reusable primary data
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- Publish and share our historical and geographical resources using 'classic' web and semantic web technologies

The SyMoGIH project : http://symogih.org

1. Aim :

   - elaborate a collaborative platform (database, GIS, semantic web) allowing to achieve the Digital history department objectives
   - publish and interlink our data with those of other projects using web and semantic web technologies

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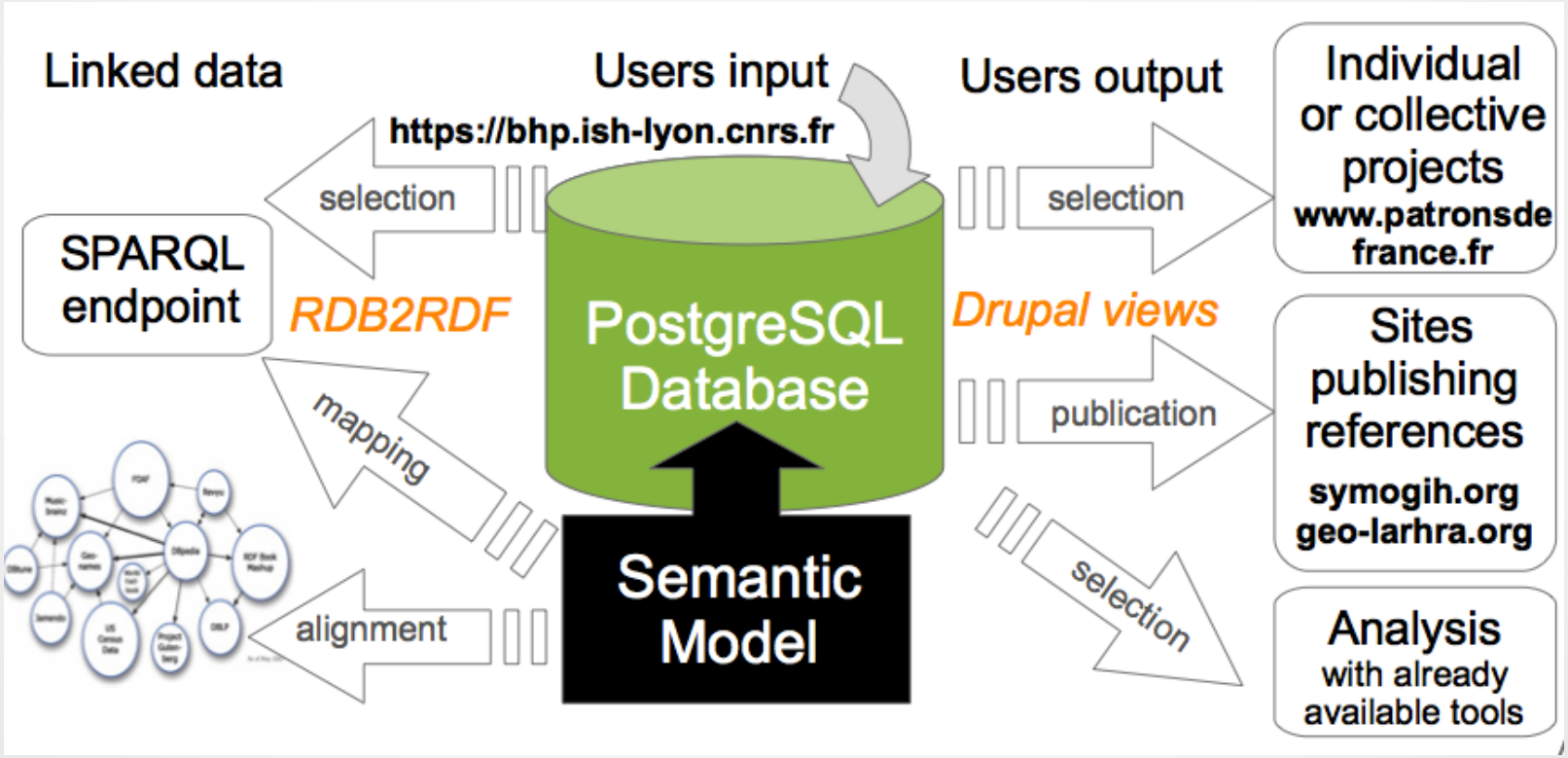
3. Results
   - More then 40 scholars and students are currently using or have used the database and more then 5 research programs are linked to the project
   - 3 websites publish our data and a Virtuoso triplestore is available in alpha stage

Project presentation / documentation

http://symogih.org

The SyMoGIH collaborative plateform – http://symogih.org



PostgreSQL, PHP, AJAX, DRUPAL, PostGIS, OpenLayers, TinyOWS, eXist, baseX, D2RQ, Virtuoso, ...

GIS ressources : http://geo-larhra.org

- Gazetteer
- Spatial data catalogue
- Historical atlas

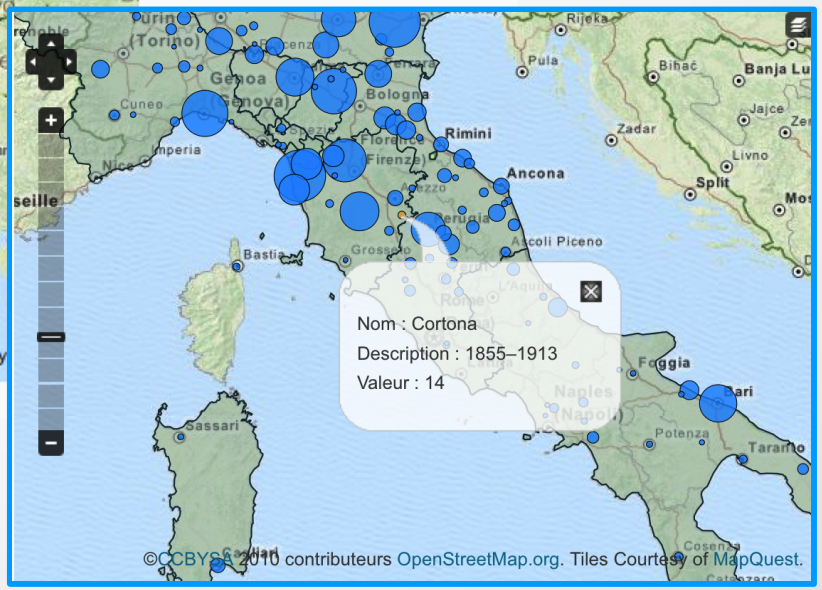
A use case : displaying data from the web on the historical atlas

Evolution des territoires en Italie

Site expérimental. Données non exhaustives, en cours de production.

Dates significatives

1815-06-09
1829-12
1847-12
1859-11-10
1860-03-24
1860-11-05
1861-03-17
1866-10-03
1870-10-02
1920-11-12
1929-02-11
1947-02-10



SPARQL – endpoint B3Kat
Bayerische Staatsbibliothek, Bibliotheksverbund Bayern, Kooperative Bibliotheksverbund Berlin-Brandenburg
http://lod.b3kat.de/sparql

Places and their historical developement

What is a place ?

"In the context of the TGN, a geographic place is an administrative entity or a physical feature that has a proper name,
is of the type recorded in atlases and gazetteers,
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(Getty Thesaurus of Geographic Names (TGN): Editorial Guidelines 1.1.3)

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A more general definition :

A place is a portion of the earth's surface to which we assign some characteristics. Therefore, a place is a conceptual construct.

From a historical point of view, we are interested in the temporal evolution of the place's characteristics, including its toponymic, typologic and spatial evolution.

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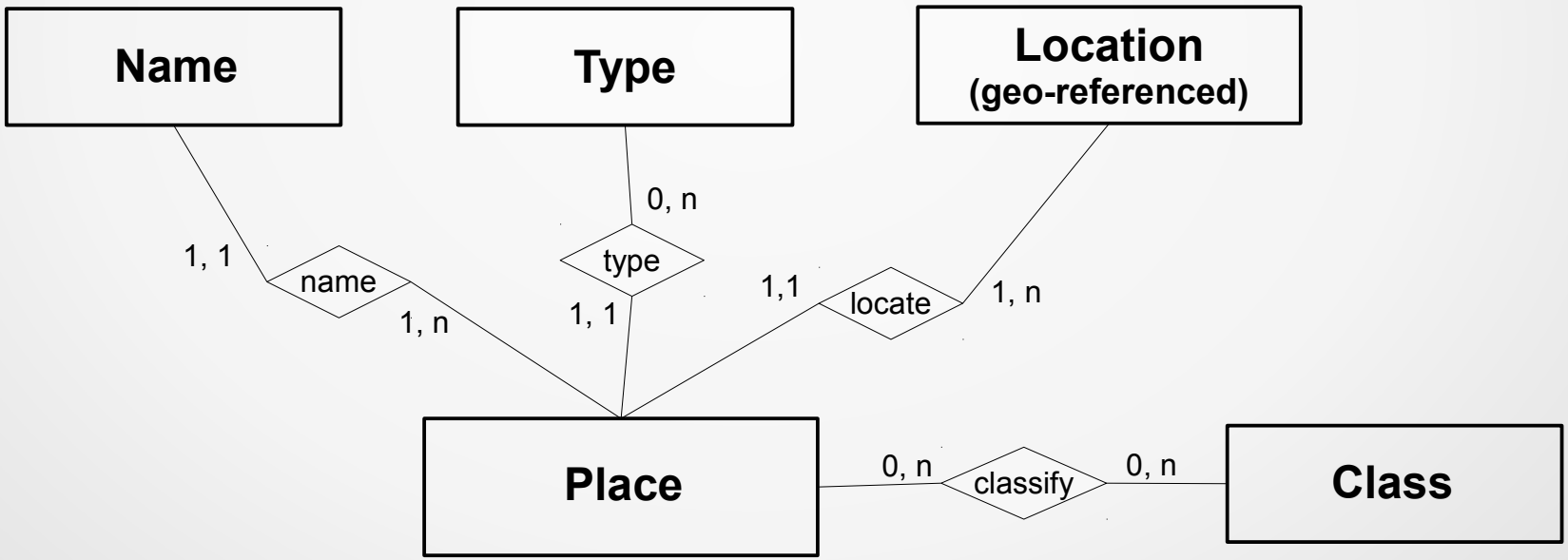
What kind of characteristics shall we provide to identify a place and compare our data with those produced by other projects ?

Basic properties allowing to identify a place

- Standard gazetteer properties : name, location, type
- More specific typology : classification
- Properties treated as associated objects, identified by URIs



Sets of places (SyMoGIH project)

Two disjoint sets of 'places'

→ **Named-places** :

Places that can be conceived as a portion of the earth' surface: natural geographical elements (forests, mountains, rivers, ...), limits of surface resulting from human activity (inhabited place, administrative division, country borders)

→ **Immovables constructions** :

Every building or construction resulting from human activity that can be represented as a relief on the surface of the earth (building, church, telegraph pole, ...)

A controlled vocabulary of place types (SyMoGIH project)

Place **types** state essential characteristics of a place.

Classifying places with types produces disjoint sets including objects that share the same basic caracteristics.

Therefore, basic types are very important to identify and compare places.

→ **Named-places**

- Inhabited place
- Territory
- Geographic region
- Geographical natural area
- Infrastructure area
- Address

→ **Immovables constructions**

- Infrastructure
- Building
- Part of a building
- Collection of buildings

Adding a more detailed, open classification (SyMoGIH project)

Place **classes** state more detailed characteristics of a place.

Classifying places with classes produces sets that **can include the same objects considered under different perspectives**.

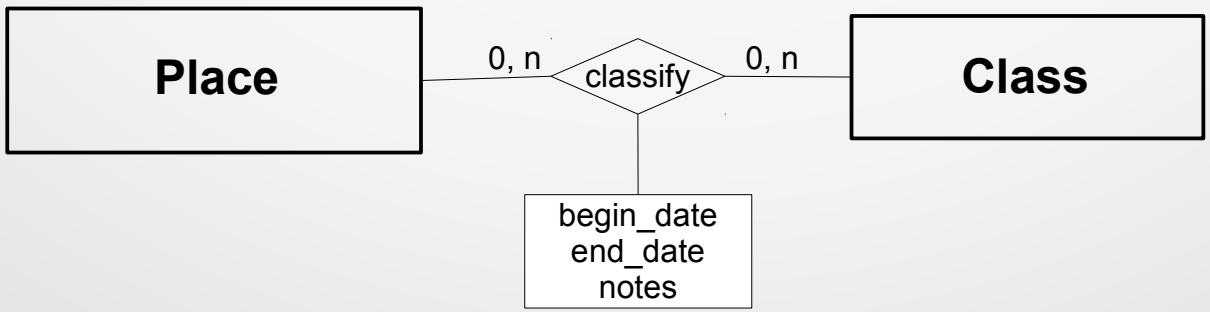
This classification can also be related to a specific period by indicating a start and end date in the association to a class.

For example

→ Place set : Named-place

→ Type : Territory

→ Classes : town, municipality, administrative division,...



An example of 'place' : le centre Berthelot

Le centre Berthelot (Berthelot center)

http://fr.wikipedia.org/wiki/Centre_Berthelot

→ Place identification / description :

- → **Place set** : Immovable construction
- → **Name 1** : Le centre Berthelot [lang:fra] ; **Name 2** : Berthelot center [lang:eng]
- → **Location** : 4° 50′ 8.06″ E 45° 44′ 47.9″ N
- → **Type** : Collection of buildings
- → **Classes** : Historical building, hospital (1894-1981), army medical school (1894-1981), prison (1943-1944), research center (1999), ...

→ Historical informations :

- → **1888** : Construction of the buildings
- → **1894 - 1981** : Army Medical Corps School occupation
- → **1943** : A building occupied by the Gestapo from the Spring of 1943 to 26 May 1944
- → **1944** : Bombing and destruction of buildings
- → **1958 -1962** : Reconstruction of the buildings
- → **1992** : Inauguration of the Centre d'Histoire de la Résistance et de la Déportation (Resistance and Deportation Museum)
- → **1999** : Occupation of the buildings by Institute of the Science of Man and Society (SHS), housing the headquarters of the LARHRA (since 2003)

Aim of the DARIAH's project : creating a thesaurus or an information system ?

Substantial difference between :

1. developing a controlled vocabulary allowing to identify and classify historical places

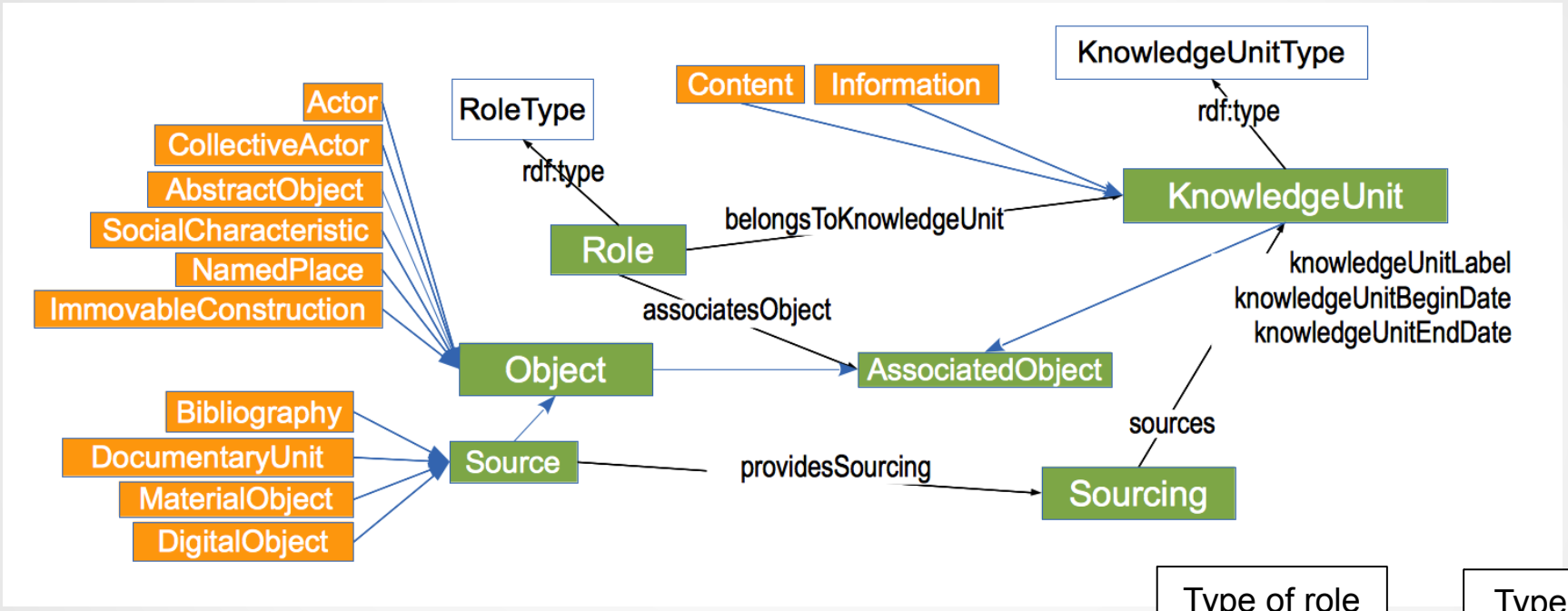
2. creating an information system for storing and managing historical events and evolutions related to places.

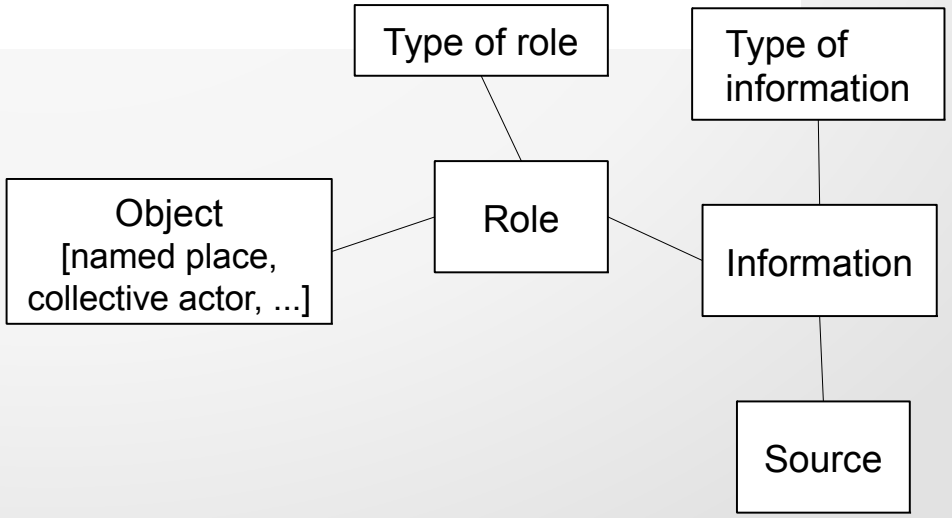
In the SyMoGIH project we draw a fundamental distinction between **identifying a place** (or any other object) and **collecting historical information** about the evolution of the place in time and space.

To treat historical information we use a **generic data model** allowing to :

- define classes of historical objects (actors, concepts, places, etc.)
- create informations as atomized knowledge units documenting relationships between objects at a given time
- provide source for each information

The data model of SyMoGIH's information system





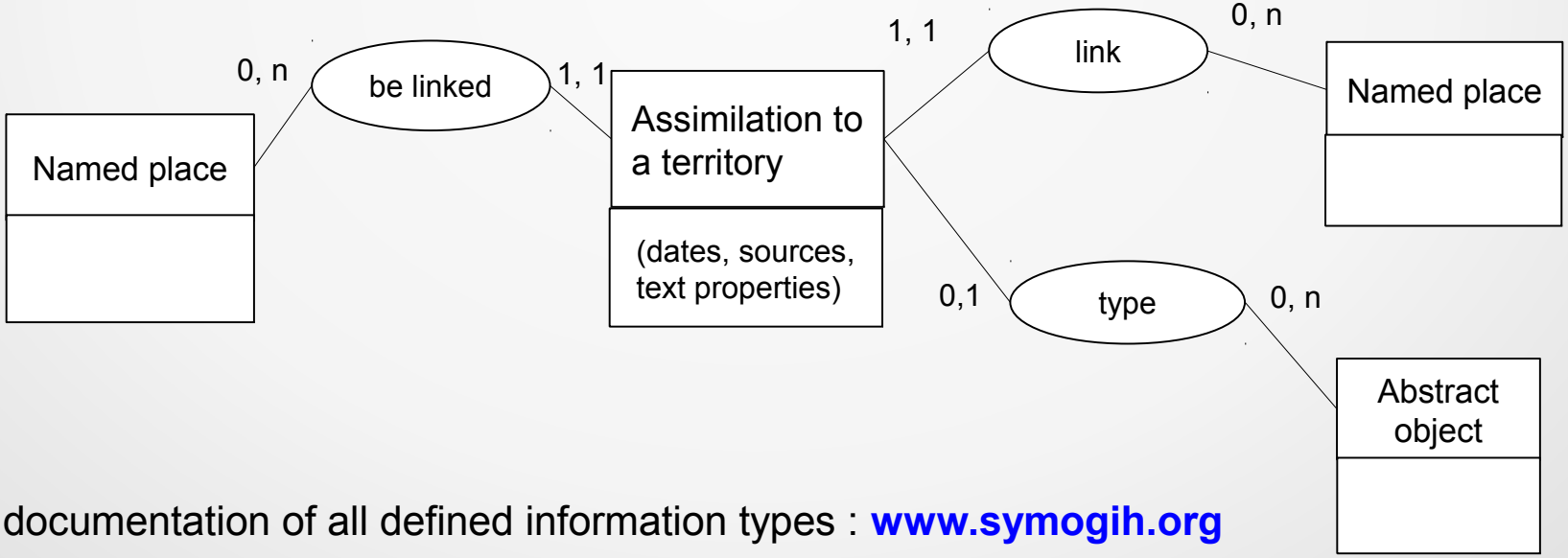
- Generic data model
- Informations conceived as dated and sourced relationhips between objects

Modeling specific historical informations (SyMoGIH project)

The generic data model is instantiated to specific, user defined information types.

These instantiated models express the semantic meaning of the produced data.

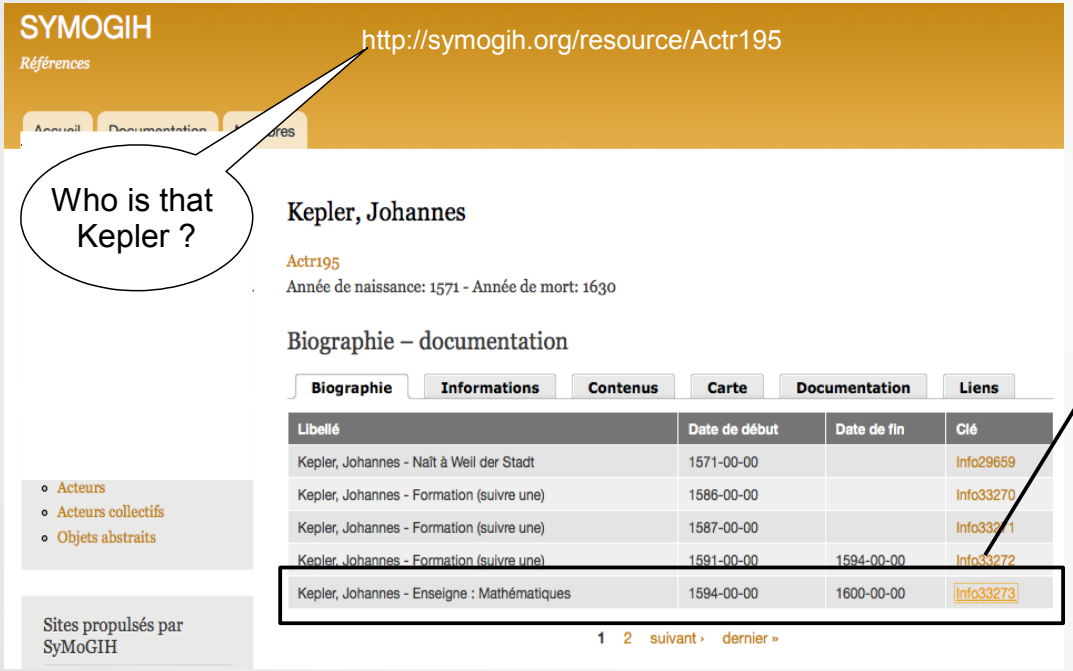
For instance : assimilation of a place (type:territory) to another one

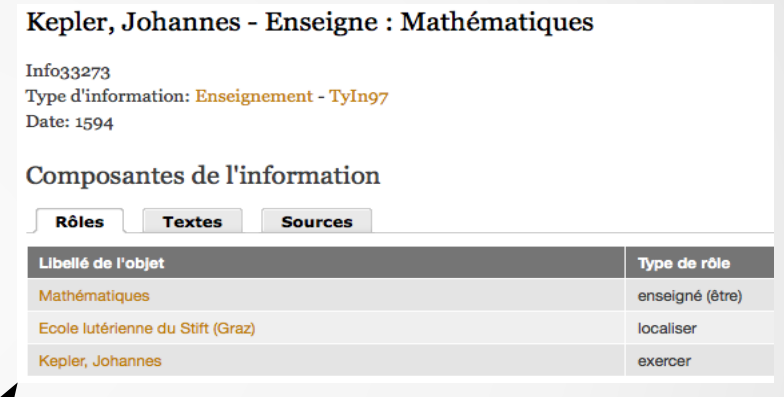


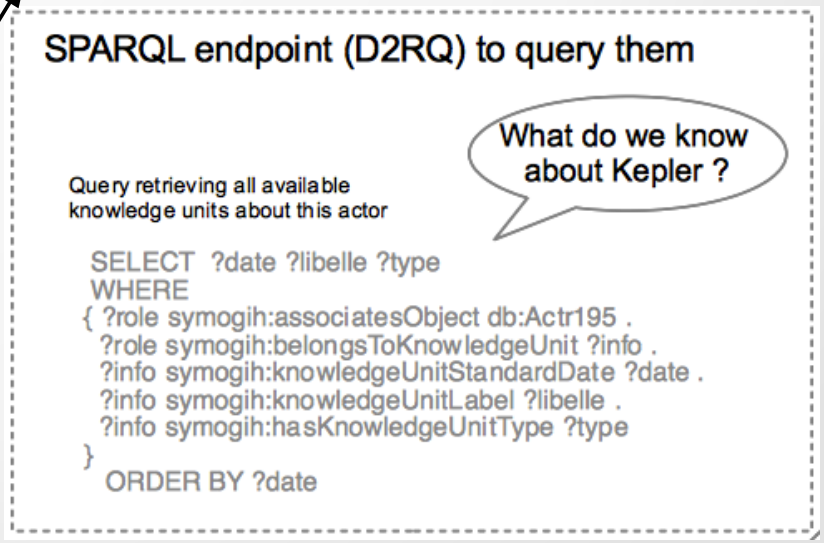
Public documentation of all defined information types : **www.symogih.org**

Give access to our objects and their description (knowledge units)

- identify objects using URIs
- dereference objects at symogih.org
- gather information (knowledge units) about objects i.e. linking them







Our proposal : a thesaurus and a separate information system