

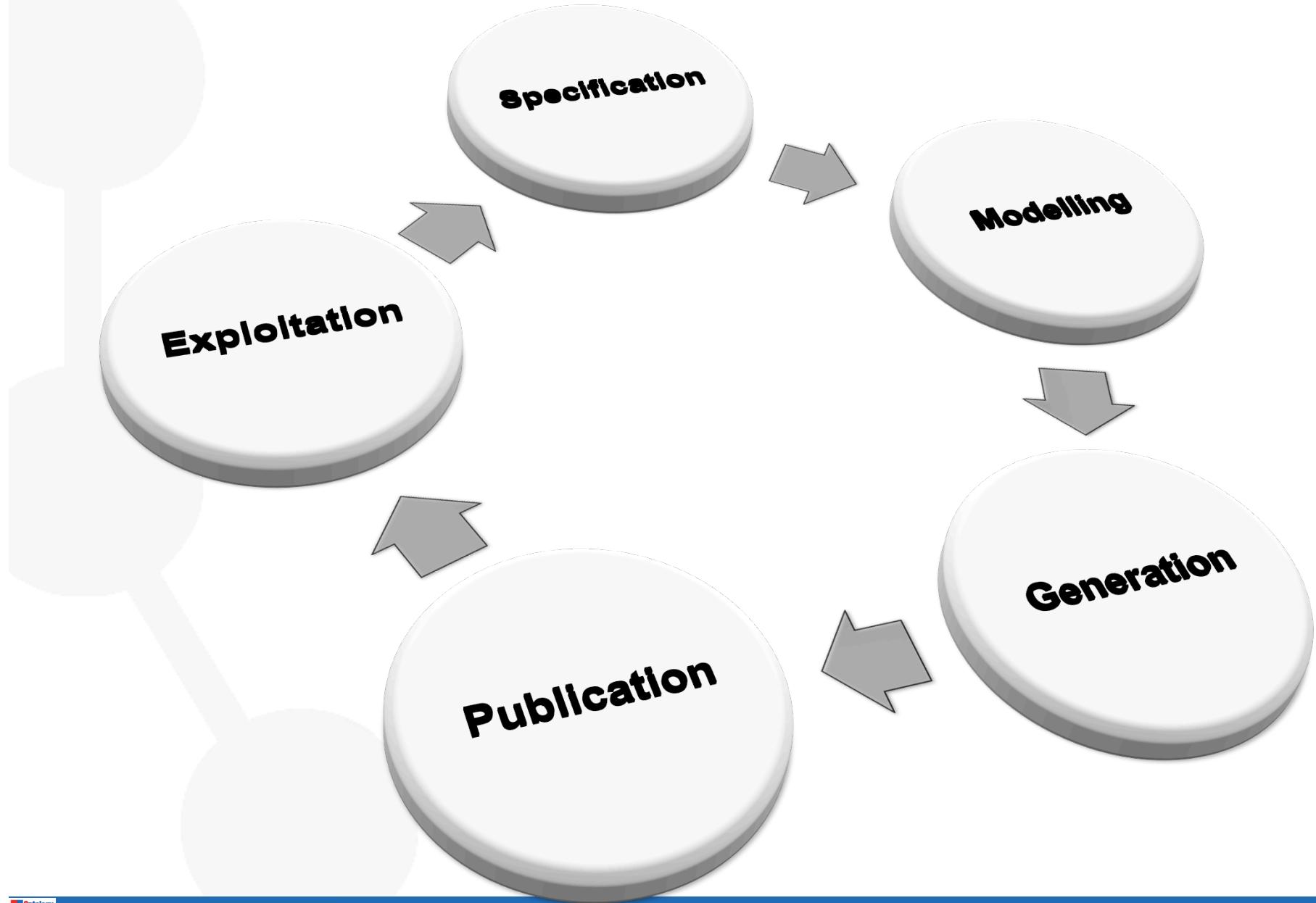
Linguistic Resources enhanced with geospatial Information

Steven Moran,
Richard Littauer, Didier Cherex and
Boris Villazón-Terrazas

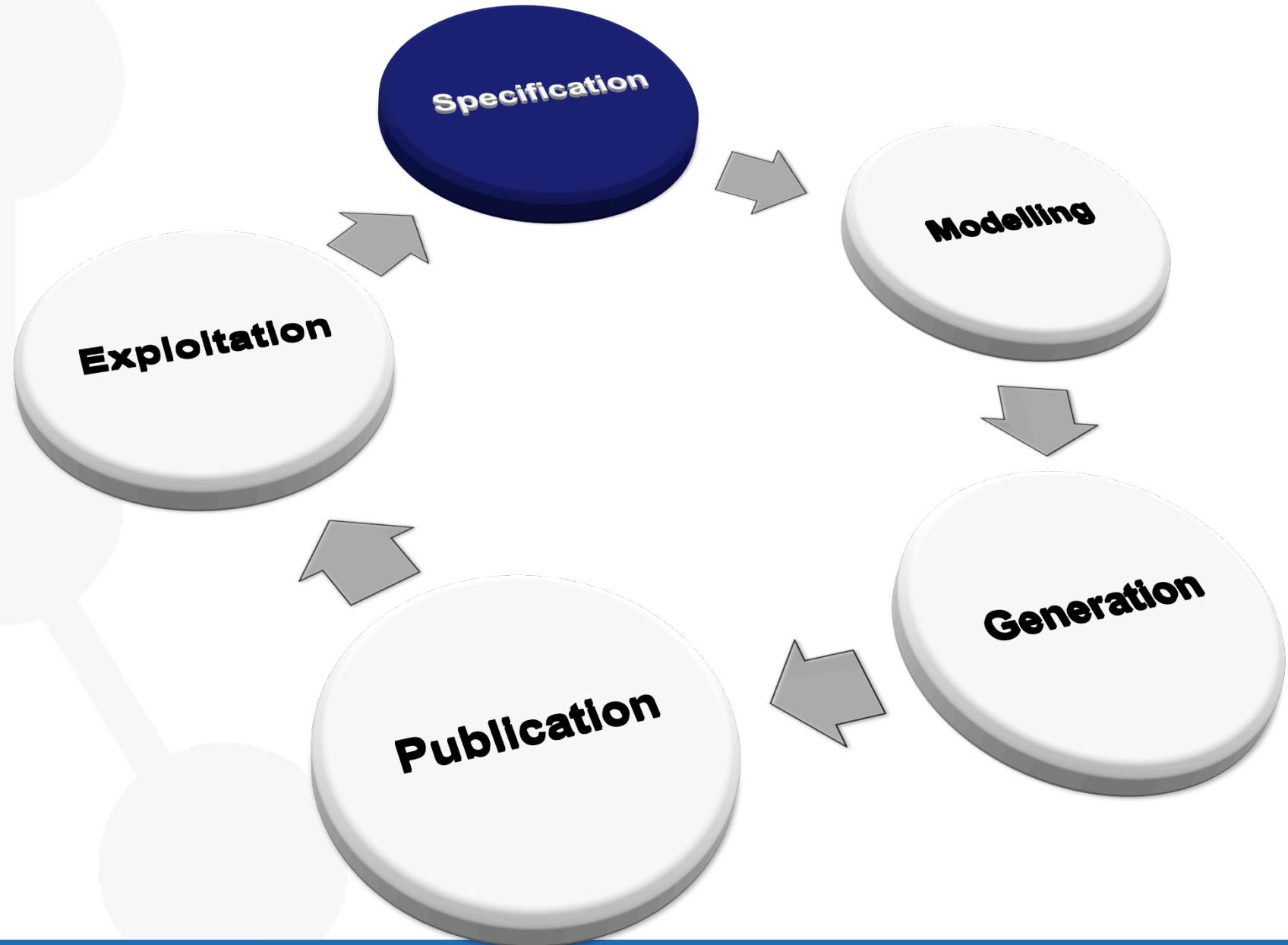
[@boricles](http://www.slideshare.net/boricles)

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Iterative and Incremental Linked Data Life Cycle



Iterative and Incremental Linked Data Life Cycle



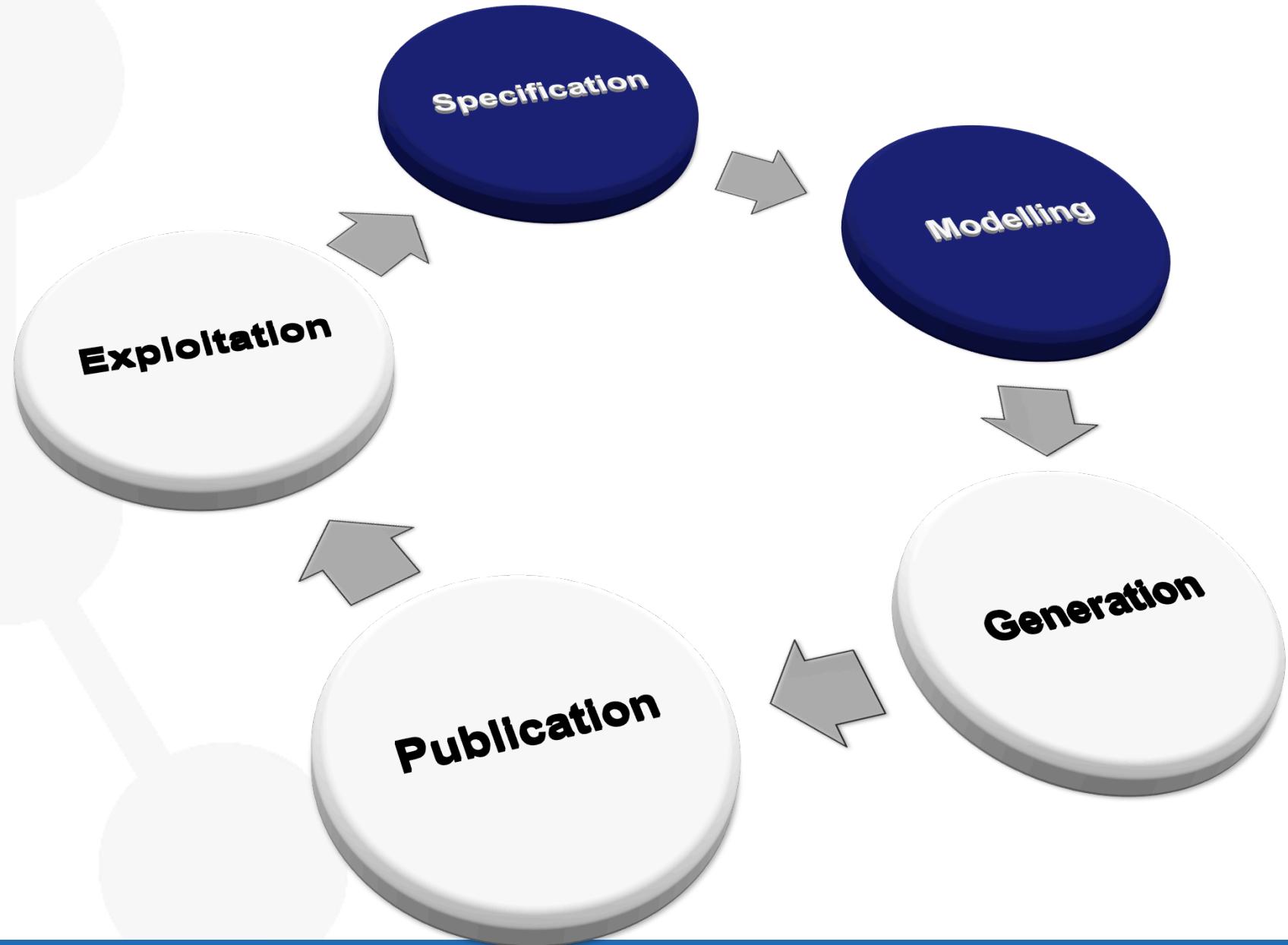
Data that contains Villages in Africa with language information

Language															Village Name			Geospatial information				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q						
Multilingual	Ig family	family code	Language alternate	language col	Language dialect	dialect code	ISO 3 Let	OfficialVill	MajorCity	Population	Transcrib	N Lat	W Long	Ig comment	social info							
Y (multiple)							223	Bandiagar	Y			14.35	-3.6167	multilingual, zone traditio	main administrative center for the Dogon hea							
Y (multiple)							223	Douentza	Y		duway̩sa	15	-2.9502	multilingual	increasingly cosmopolitan city, mostly Fulfulde							
Y (multiple)							223	Mopti	Y			14.4833	-4.1838	multilingual (lingua franc	provincial capital							
Y (multiple)							223	San	Y			13.2842	-4.884		largest town on highway from Segou to Mopti							
Y (multiple)							223	Sevare	Y			14.5333	-4.1	multilingual, mostly Fulfulde	the fast-growing city at the turnoff for Mopti							
Y (multiple)							223	Sofara	Y			14.0167	-4.0667	multilingual, mostly Fulfulde and Bambara, also Tomo-Kan								
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Adakaoura-Fulbe			àná-kárúv	14.1002	-3.3669		Fulbe village (huts) near Adakaoura (Togo Kar)							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Amdallaye			hamdalla:	14.3333	-4.1167									
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Anga			anga	14.7173	-3.567	Fulfulde is dominant lang	village on plateau among ravines and rock p							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Balaguira-Foulbe			balgina-fulbe (Fulfulde)	0			[near Balaguira-Habe] village; Fulbe and Rim							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Banggel-Diaoule			baanggel	15.267	-1.7836		village in plains not far from la Main de Fatou							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Bankisa			bankisa	15.2005	-2.7676		small village; Fulbe; surname Diallo; in March							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Baraboule			barabulle	14.2167	-1.85		town in Burkina Faso; surname Dicko							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Bile-Doungouwal			bile-dung	15.2501	-1.7838		small village in rock-strewn plain near fields,							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Binedama			bindama	14.4507	-3.0506		village in plains on a small elevation; Fulbe ai							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Birga-Pulo				14.0334	-3.2506		sister village for Birga (Togo Kan), in plains; s							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Boni			booni	15.0673	-1.2169		large town just off highway, becoming cosmo							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Boula			bula	15.2007	-2.6835		village in two parts; on shelf near bottom of m							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Bounti			bunti	15.2007	-2.5676		village in two parts; at base of mountain, Full							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Dala			dalla	15.1002	-2.6337		village at base of mountain; Fulbe (surname							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Dari (near Hombori)			daari	15.2501	-1.7838		village in rock-strewn plain at base of la Main							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Dari (near Nienagou)			daari (Ful)	14.767	-3.8336		village on plains near hill; Fulbe-Rimaibe; sur							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Dari-Wouro			daar-wur	14.4839	-3.6009		small Fulbe village paired with Dari (Dogulu)							
Atlantic	Fulfulde	peul (Frer)	ffm	Fulfulde			223	Debere					15.1	-3.0167								

- Dereferenceable URIs
- Let's use the hosting provided by UPM
 - <http://linguistic.linkeddata.es/>
- Vocabulary Elements
 - <http://linguistic.linkeddata.es/ontology/{property|class}>
 - <http://linguistic.linkeddata.es/ontology/officialName>
- Instances
 - <http://linguistic.linkeddata.es/dataset/resource/{r. type}/{r. Name}>
 - <http://linguistic.linkeddata.es/mlode/resource/Village/Sokoura>



Iterative and Incremental Linked Data Life Cycle



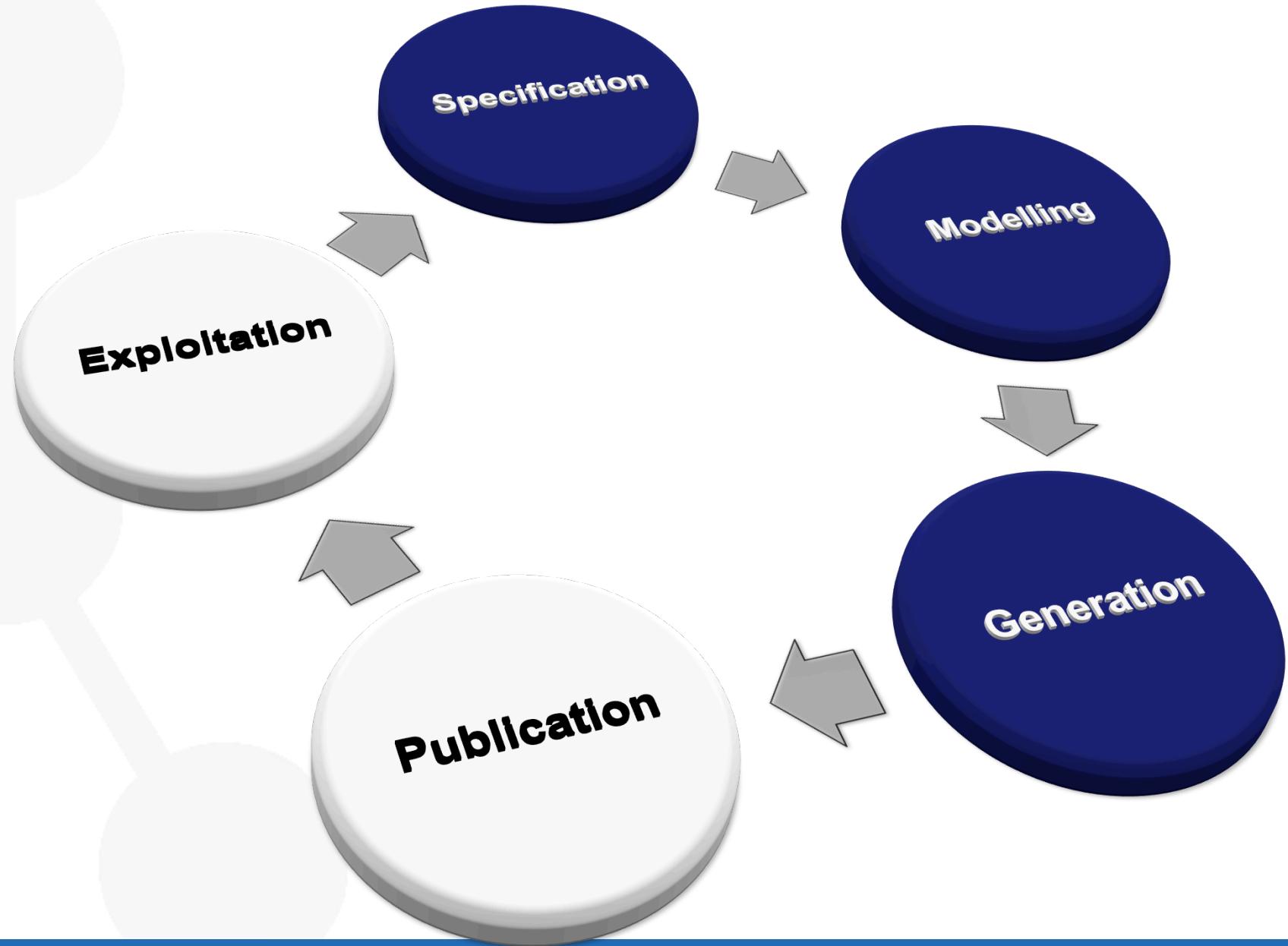
Reuse as much as possible available vocabularies

- <http://linguistics-ontology.org/>

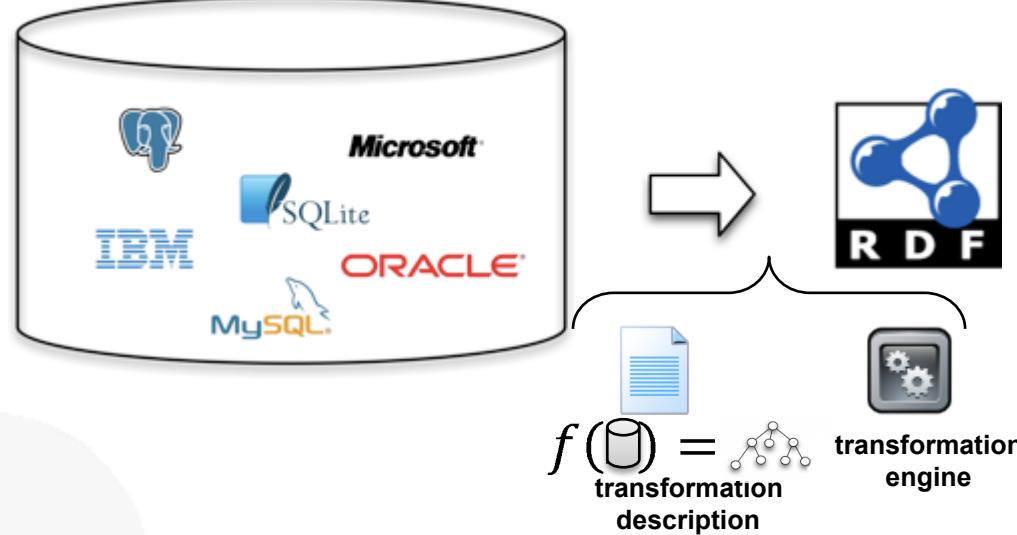


- GOLD is an ontology for descriptive linguistics.
- We have resued some elements from this ontology
- Also we have reused the WGS84 Geo Basic Vocabulary <http://www.w3.org/2003/01/geo/>

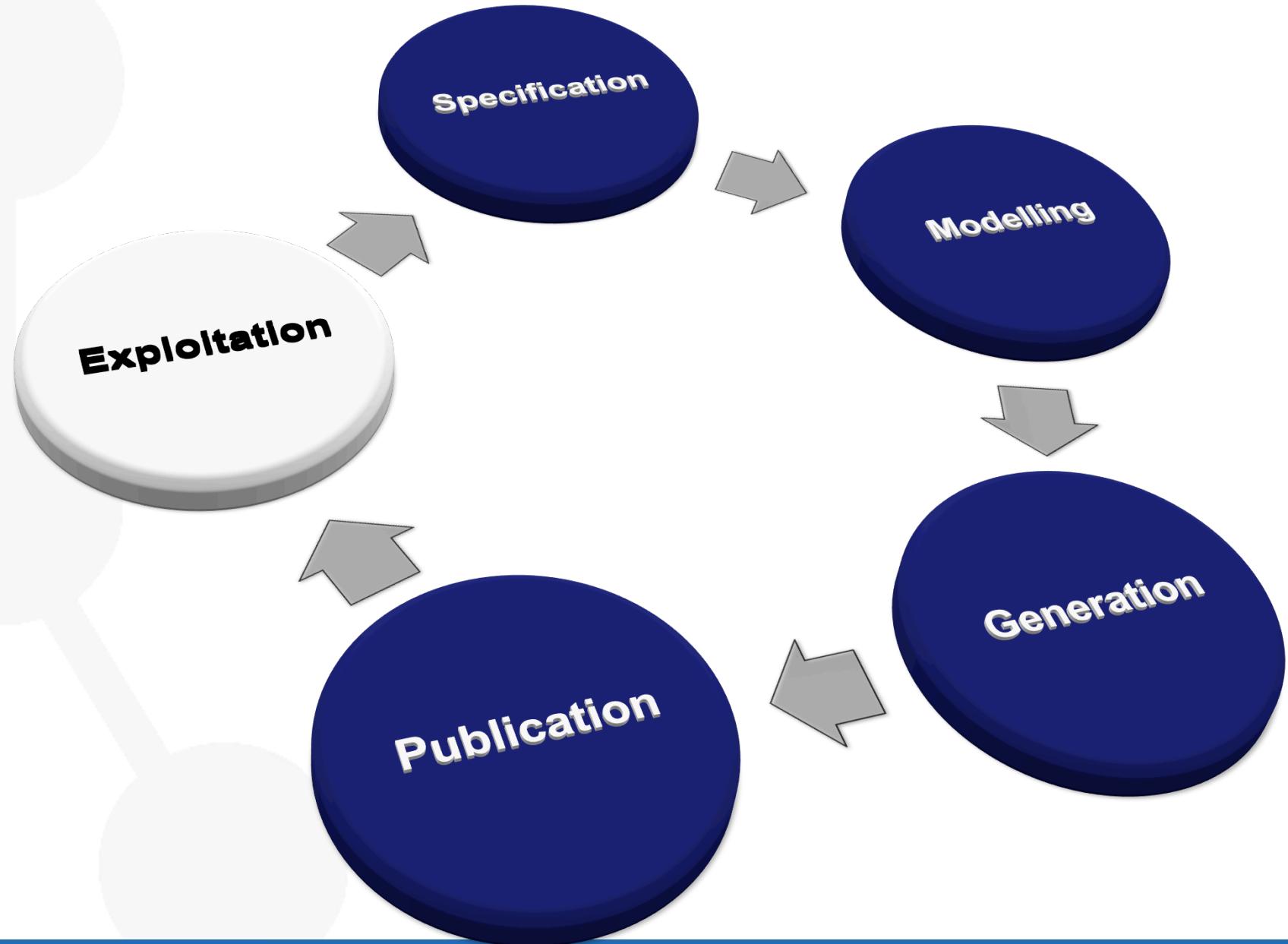
Iterative and Incremental Linked Data Life Cycle

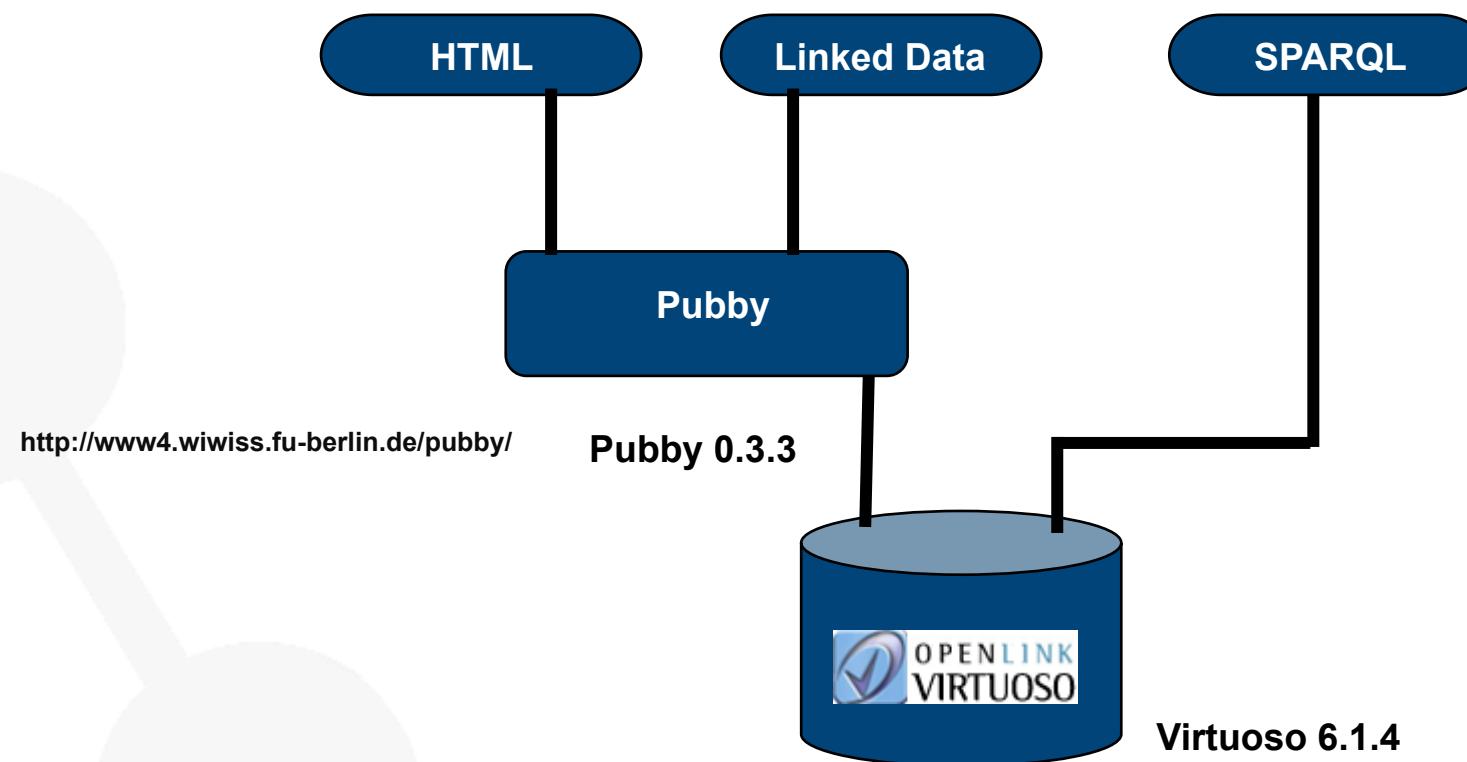


- R2RML, RDB 2 RDF mapping language
 - <http://www.w3.org/TR/r2rml/>
- morph, R2RML engine
 - <http://code.google.com/p/oeg-obdi>

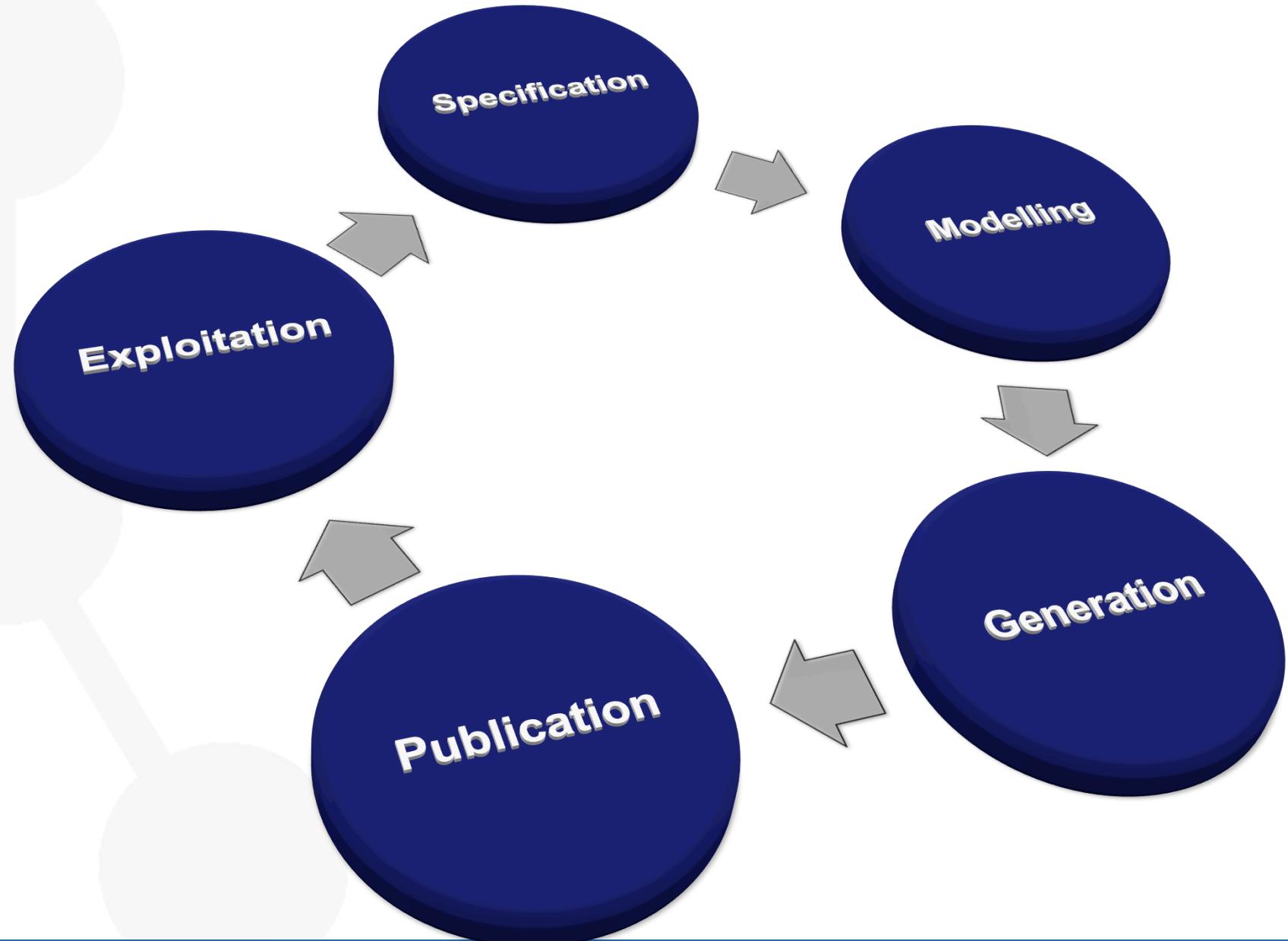


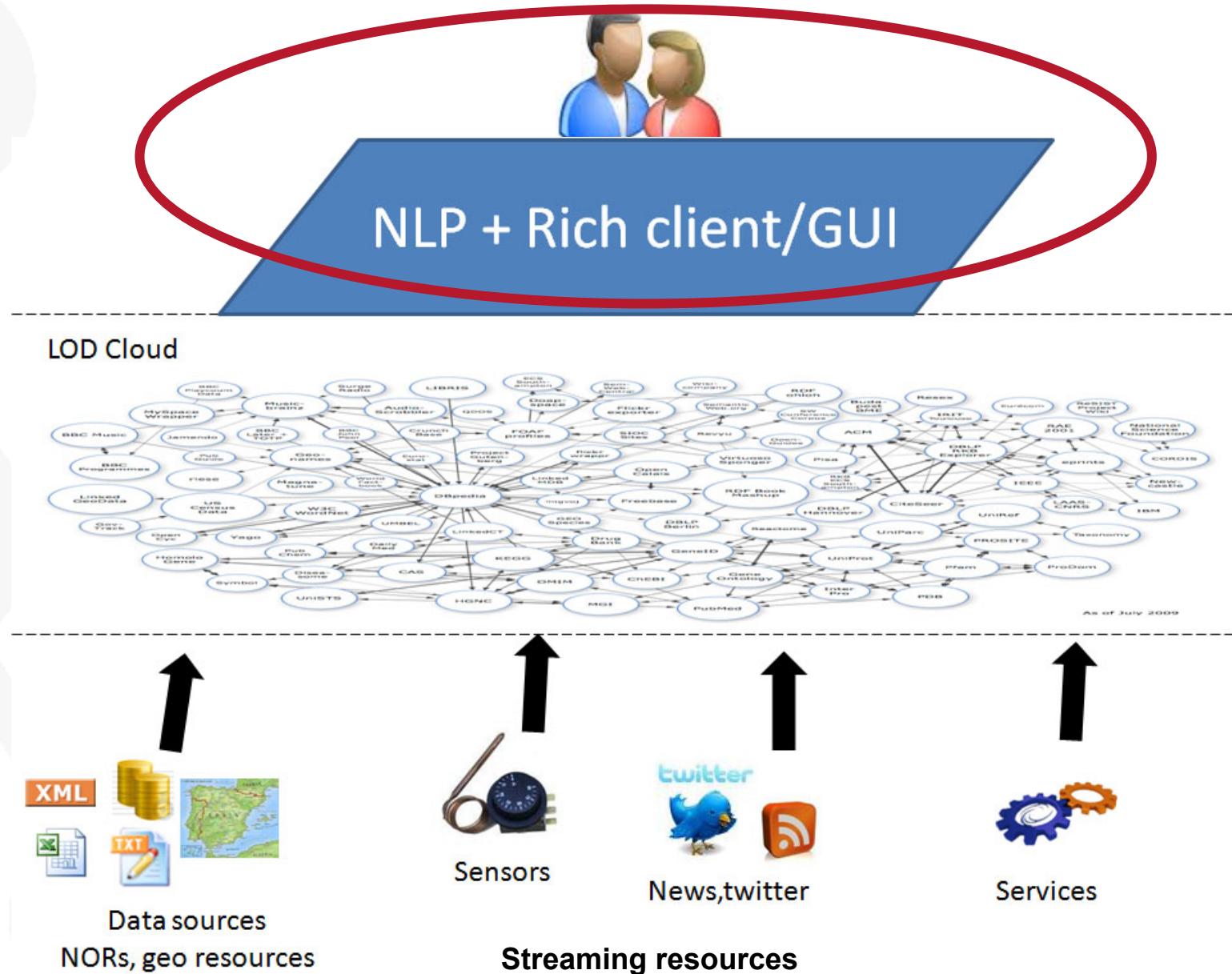
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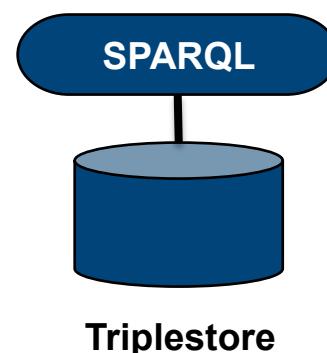
<http://mccarthy.dia.fi.upm.es/map4rdf>



map4rdf

map4rdf:

- Viewer of RDF resources (with geospatial information)
- Extensible with google plugins
- Used in other applications like Aemet, Goodrelations



- Parameters on configuration.properties file

endpoint.url=http://linguistic.linkeddata.es/sparql

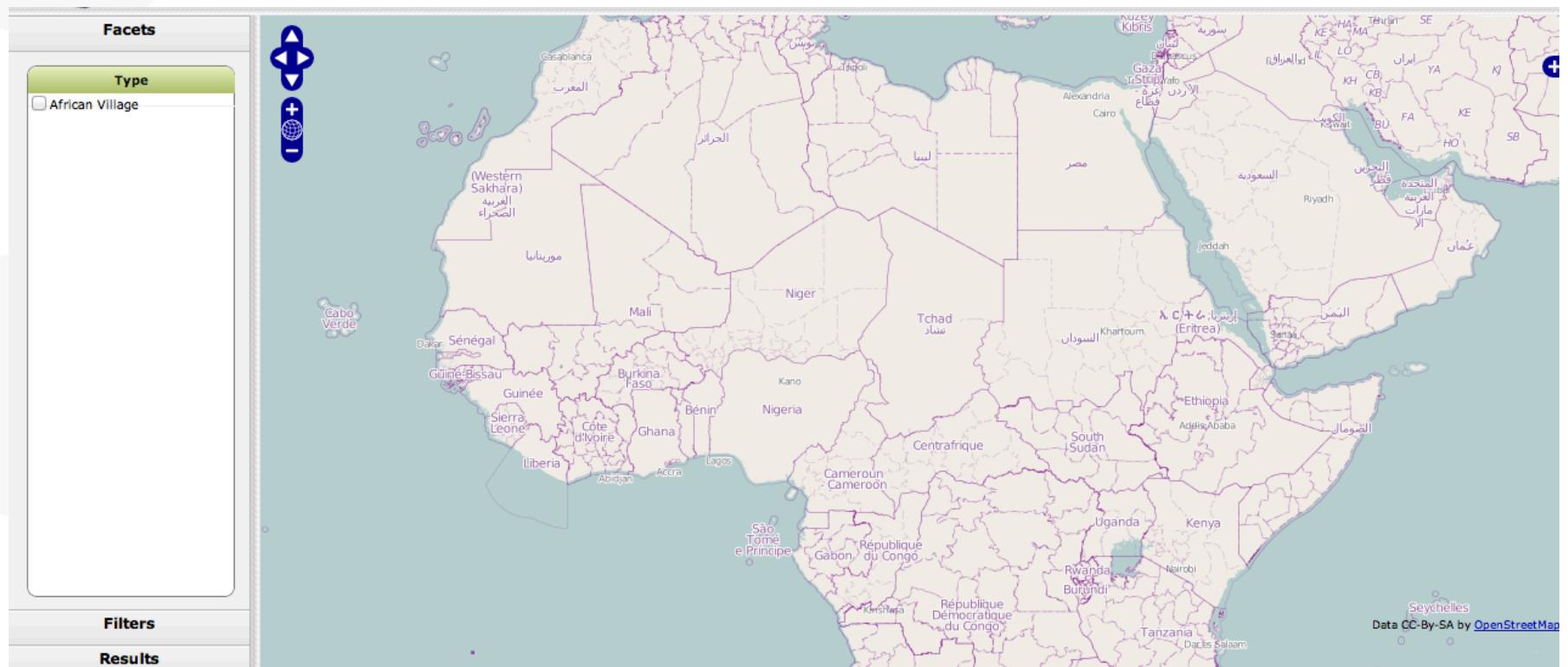
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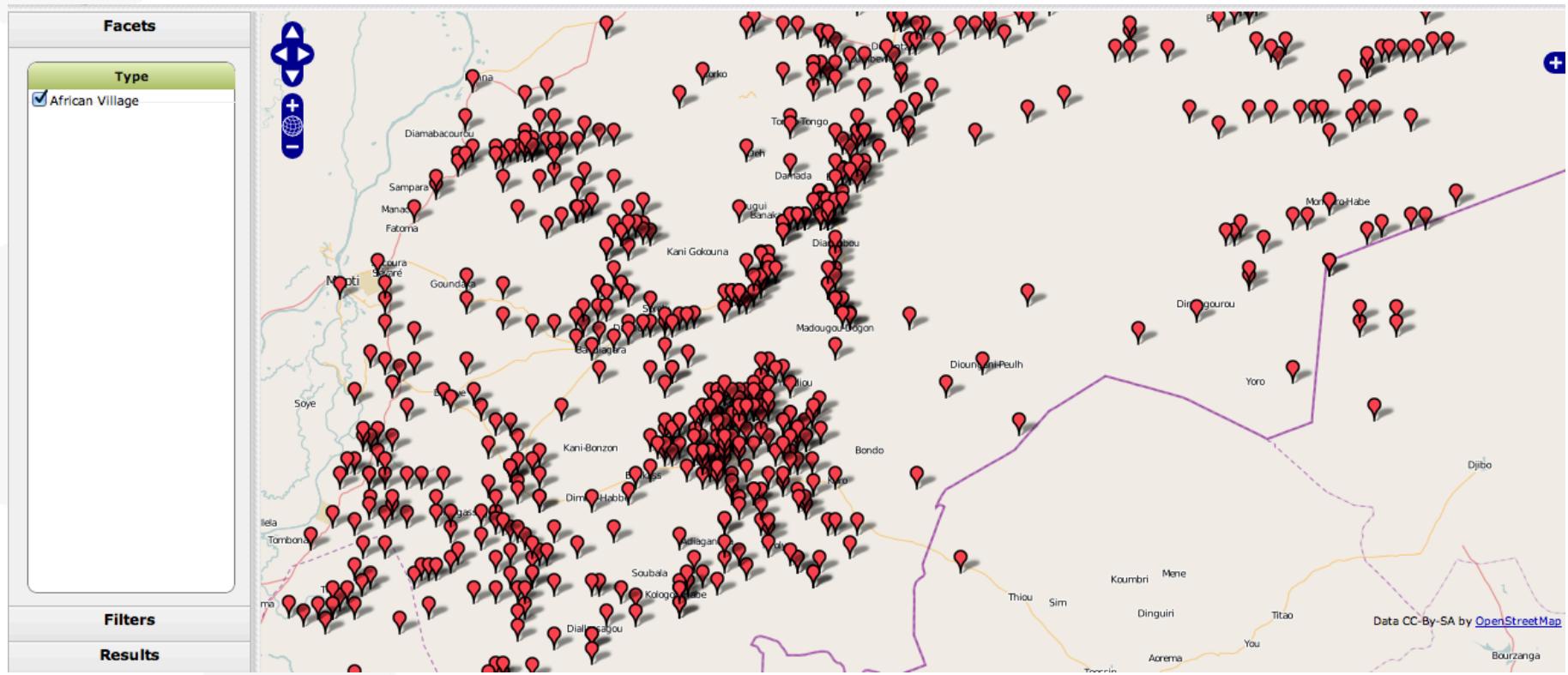
ui.google_maps_api_key=AIzaSyA2P0QXdSQiI4LVvvNQfTRxMz1_bz2Kuwc

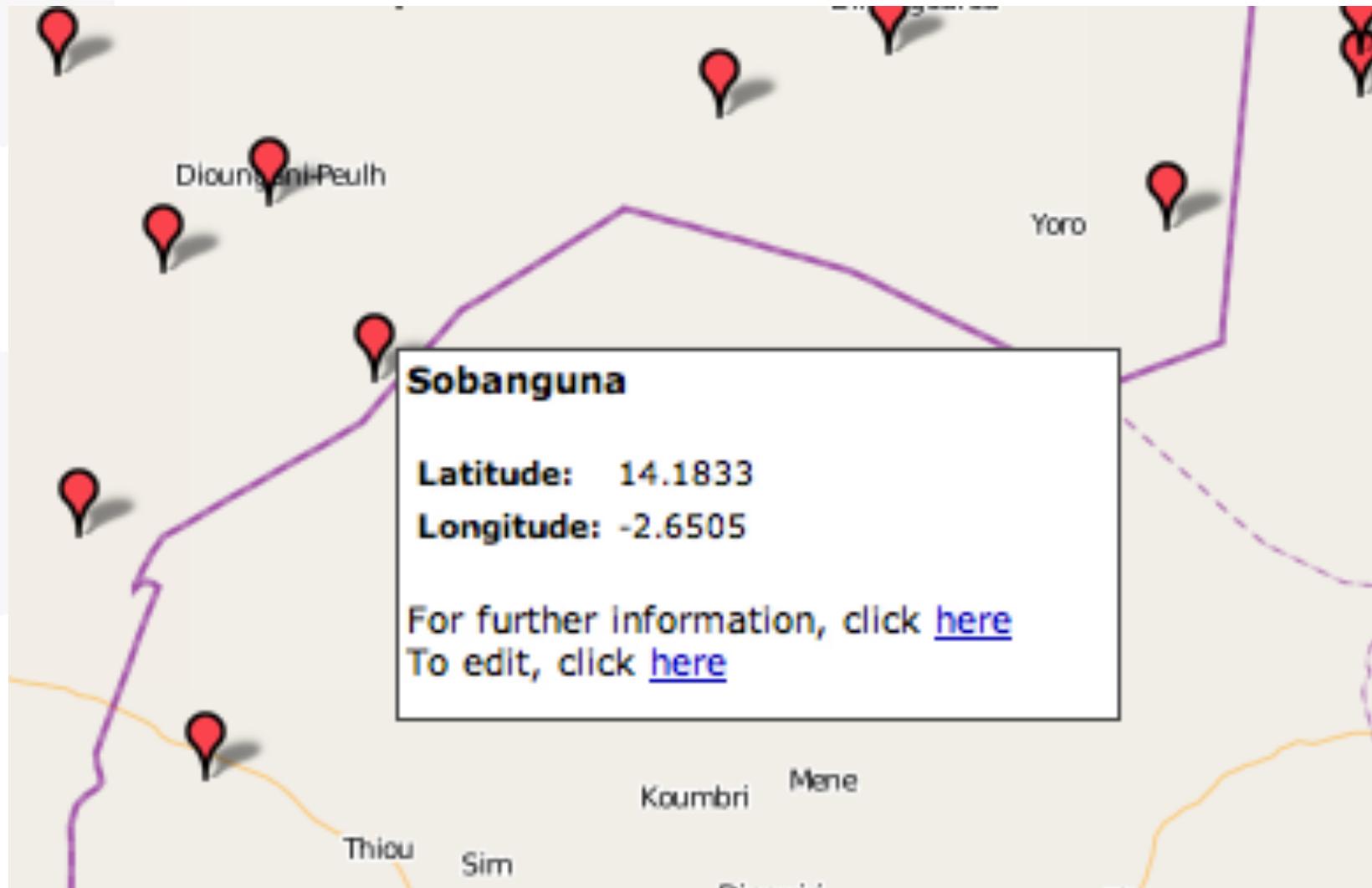
....

Demo

<http://mccarthy.dia.fi.upm.es/map4rdf-mlode/>







Sobanguna

at linguistic.linkeddata.es
<http://linguistic.linkeddata.es/mlode/resource/Village/Sobanguna>

Property	Value
lonto:Language	▪ djm
lonto:LanguageFamily	▪ Dogon
lonto:LanguageSubfamily	▪ Jamsay
linguisticonto:alternate_lg_group	▪
geo:geometry	▪ < http://linguistic.linkeddata.es/mlode/resource/Geometry/Sobanguna >
linguisticonto:iso_code	▪ 223
rdfs:label	▪ Sobanguna
linguisticonto:language_code	▪ djm
linguisticonto:officialName	▪ Sobanguna
rdf:type	▪ geonto:Municipio

This page shows information obtained from the SPARQL endpoint at <http://linguistic.linkeddata.es/sparql>.

[As Turtle](#) | [As RDF/XML](#) | [Browse in Disco](#) | [Browse in Tabulator](#) | [Browse in OpenLink Browser](#)

- Link the resources with other resources

Finally, another demo

- Parameters on configuration.properties file

endpoint.url=http://mlode.nlp2rdf.org/sparql

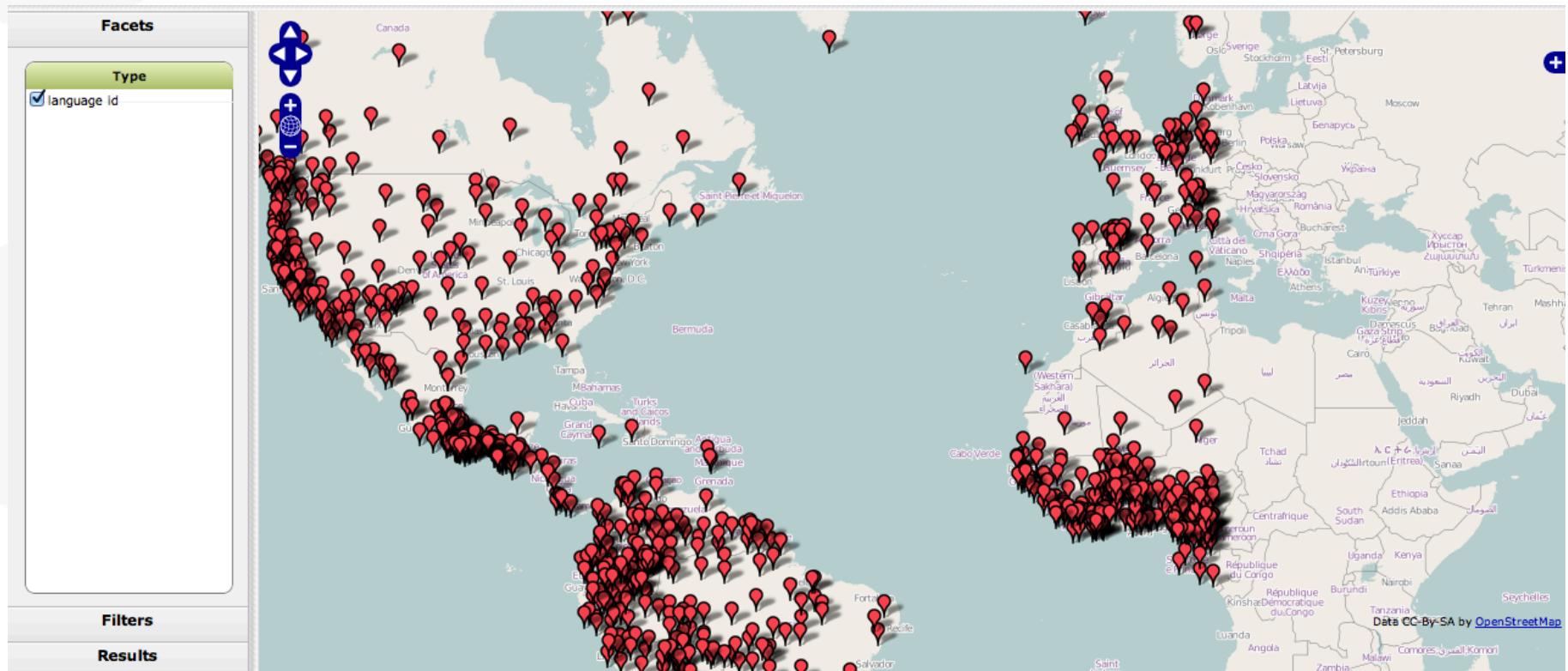
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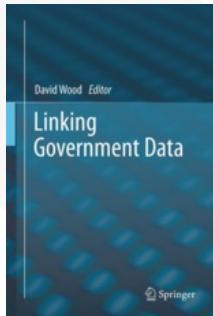
....

Demo

<http://mccarthy.dia.fi.upm.es/map4rdf-wals/>



Main References



Wood, David (Ed) *Linking Government Data* - 2011

Methodological Guidelines for Publishing Government Linked Data

Boris Villazón-Terrazas, Luis M. Vilches, Oscar Corcho, Asunción Gómez-Pérez



Best Practices for Publishing Linked Data

W3C Editor's Draft 31 August 2011

This version:

<http://dvcs.w3.org/hg/gld/bp/>

Latest published version:

<http://www.w3.org/TR/gld-bp/>

Latest editor's draft:

<http://dvcs.w3.org/hg/gld/bp/>

Previous version:

none

Editors:

[Michael Hausenblas, DERC](#)

[Bernadette Hyland, 3 Round Stones](#)

[Boris Villazón-Terrazas, OEG-UPM](#)

Best Practices for Publishing Linked Data

W3C Editor's Draft – Government Linked Data Working Group

Bernadette Hyland, Boris Villazón-Terrazas, Michael Hausenblas,

<https://dvcs.w3.org/hg/gld/raw-file/default/bp/index.html>

Cookbook for Open Government Linked Data

Editors:
[Bernadette Hyland, \(3 Round Stones\)](#)
[Boris Villazón Terrazas \(Universidad Politécnica de Madrid\)](#)
[Sarven Capadisli \(Digital Enterprise Research Institute\)](#)

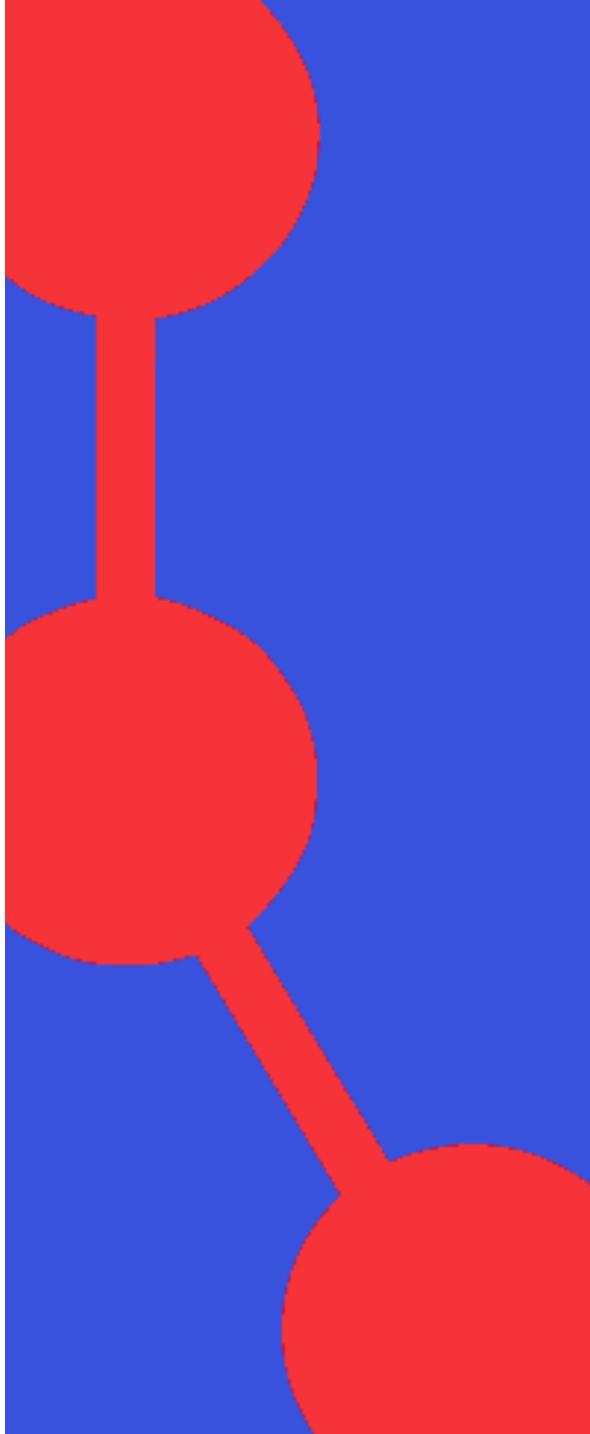
Cookbook for Open Government Linked Data

W3C Editor's Draft – Government Linked Data Working Group

Bernadette Hyland, Boris Villazón-Terrazas, Sarven Capadisli

http://www.w3.org/2011/gld/wiki/Linked_Data_Cookbook





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