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Geneviève Michaud, Baptiste Rouxel

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Customizing a DDI compliant repository: a detailed course with Dataverse

Baptiste Rouxel, Geneviève Michaud,
Center for Socio-Political Data

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December, 2, 2020

Customizing a DDI compliant repository: a detailed course with Dataverse

Tackling issues, sharing tools and processes

Outline

1. Metadata model customization
2. Setting up multilingualism
3. User interface, branding

Project objectives

Set up a CESSDA Metadata Model (CMM) compliant Dataverse repository

- Customize Dataverse metadata model

Migrate CDSP study level metadata from Nesstar

- Upgrade DDI files and harmonize metadata
- Keep study + variable level metadata as DDI files for each dataset in the repository

Metadata model customization

Dataverse metadata model customization: .tsv files

Customizing a Dataverse original metadata block involves modifying a [tab separated value file](#). A ".tsv" file targets a specific "metadata block". Operation include:

1. uploading the modified TSV file using the native API
2. triggering a SolR index update

Our custom TSV is available on GitHub here:



[CDSP-SCPO/dataverse-controlledvocabulary](https://github.com/CDSP-SCPO/dataverse-controlledvocabulary)

CDSP databank migration from Nesstar to Dataverse



Custom R script

[CDSP-SCPO/Nesstar2Dataverse](#)

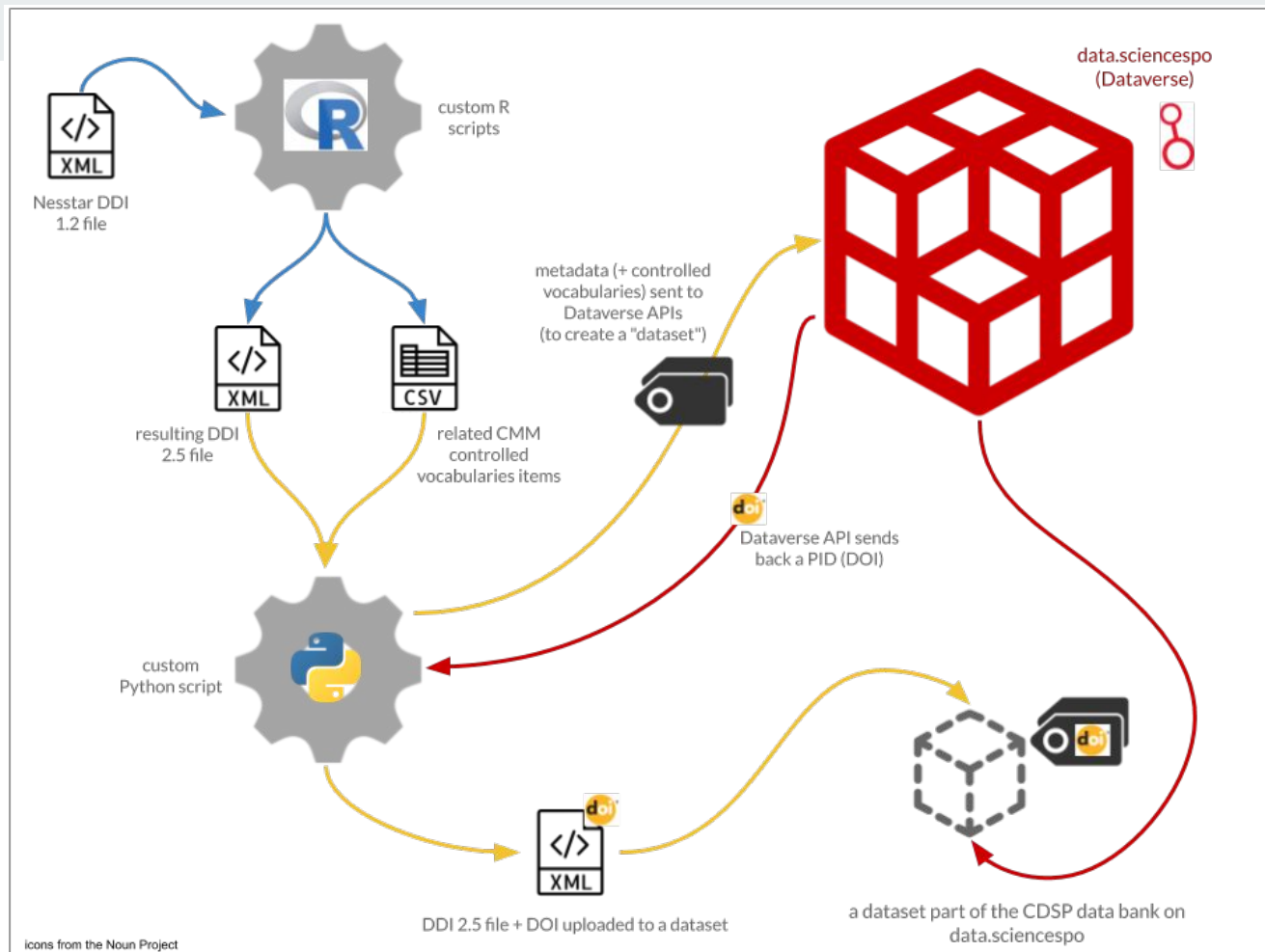
Custom Python scripts

[CDSP-SCPO/dataverse-controlledvocabulary](#)

[CDSP-SCPO/dataverse-metadataupdate](#)

[CDSP-SCPO/dataverse-jsonimport](#)

[CDSP-SCPO/dataverse-ddiimport](#)



Dataverse metadata model customization: issues

Adding metadata fields to the metadata model is quite easy (Create feature).

But this must be done **early** in the process, since revisions (Update and Delete features) require specific requests on underlying database with admin privileges. Further revisions should definitely be avoided (complexity + risk).

The DDI import API might not work properly if the metadata model is customized.

Multilingualism creates an additional layer of complexity.

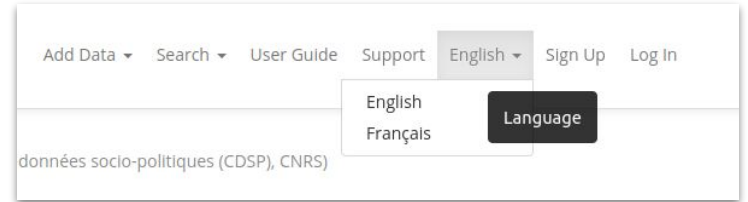
Setting up multilingualism

Multilingualism: user interface

Adding languages is possible from Dataverse v4 onwards.

[Steps](#) (link to Dataverse official documentation):

- Declare new languages that will appear in the dropdown menu
- Upload a language bundle file (see the documentation to get your languages and create the bundle)



Language translations are maintained by the community and you can ask to contribute.



[GlobalDataverseCommunityConsortium/dataverse-language-packs](https://github.com/GlobalDataverseCommunityConsortium/dataverse-language-packs)

Managing multilingualism: controlled vocabularies

a language bundle = multiple language property files for each language

In the language property files, you can translate a controlled vocabulary by adding a property for each language available.

Example:

In the metadata block TSV file, if Self-administered questionnaire: Web-based (CAWI) is a controlled vocabulary item value for ModeOfCollection, add the following line in your language property file as described in the Dataverse [documentation](#):

```
controlledvocabulary.modeofcollection.self-administered_questionnaire:_web-based_(cawi)=TRANSLATED_VALUE
```

Managing multilingualism: controlled vocabularies

This process can be bit tedious and has a high risk of error if it is done manually, so we wrote a script that:




- Creates language property files for each language and different metadata blocks
- Transforms TSV controlled vocabulary values to property names
- Adds translated value to each property



[CDSP-SCPO/dataverse-controlledvocabulary](https://github.com/CDSP-SCPO/dataverse-controlledvocabulary)

Managing multilingualism: controlled vocabularies

Search this dataverse...

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Publication Year




- 2020 (315)

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- Elections (172)
- Political behaviour and attitudes (84)
- Energy and natural resources (33)
- Government, political systems and organisations (22)
- Social behaviour and attitudes (21)

More...

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Publication Year

- 2020 (315)

Classification des sujets Terme

- Élections (172)
- Comportements et attitudes politiques (84)
- Énergie et ressources naturelles (33)
- Gouvernement, systèmes et organisations politiques (22)
- Comportement social et attitudes (21)

Plus...

Managing multilingualism: remaining issues

There is room for improvement in the way Dataverse follows DDI schema:

- As an example, it's not possible to save and display a **title** in more than one language.
- A specific group in Dataverse community is actively working on **flexible metadata**.

User interface, branding

Repository landing page

- Dataverse landing page, headers and footers are customizable
- A clear visual setup to help users navigate between different services
 - Search for data
 - Deposit data (self deposit)
 - Contact data and metadata curators (CDSP)
- Available in french and english

FIND AND EXPLORE DATA

The screenshot shows the landing page of data.sciencespo, a research data repository. The browser address bar shows the URL https://data.sciencespo.fr. The page features the SciencesPo logo and the text "data.sciencespo Research data repository of Sciences Po". A prominent red button labeled "FIND AND EXPLORE DATA" is centered on the page. Below this, a paragraph explains the repository's launch in February 2020 and its purpose. Two main collection sections are visible: "Sciences Po collection (self-deposit)" and "CDSP collection". Each section includes a description, a list of deposit requirements and access details, and a contact email. At the bottom of each section is a button: "DEPOSIT" for the Sciences Po collection and "MAKE A DEPOSIT REQUEST" for the CDSP collection. The footer contains the SciencesPo address and contact information, along with a "Powered by Dataverse" logo.



User interface: consistency with our design guidelines

Metrics 674 Downloads [Contact](#) [Share](#)

L'entrepôt Institutionnel de données de la recherche de Sciences Po

Search this dataverse... [Find](#) [Advanced Search](#)

Datasets (14) 1 to 10 of 14 Results [Sort ▾](#)

- Datasets (314)
- Files (733)

Dataverse Category

- Laboratory (12)
- Organization or Institution (1)
- Research Project (1)

Publication Year

2020 (14)

Subject

Social Sciences (5)

Résultats électoraux [8](#)

May 5, 2020 [Banque de données du CDSP](#)

ELIPSS [8](#)

May 5, 2020 [Banque de données du CDSP](#)

Metrics 23,135,148 Downloads [Contact](#) [Share](#)

Search this dataverse... [Find](#) [Advanced Search](#) [+ Add Data](#)

Datasets (1,659) **Subject: Social Sciences x**

Datasets (42,441) 1 to 10 of 44,100 Results [Sort ▾](#)

Files (0)

Dataverse Category

- Researcher (634)
- Research Project (530)
- Organization or Institution (138)
- Research Group (116)
- Journal (59)

[More...](#)

Metadata Source

- Harvested (23,906)
- Harvard Dataverse (20,194)

Publication Year

- 2020 (3,365)
- 2019 (2,566)
- 2018 (3,135)
- 2017 (2,299)
- 2016 (2,532)

[More...](#)

Subject

Social Sciences (44,100) x

Replication Data for: From Antipetismo to Generalized Antipartisanship: The Impact of Rejection of Political Parties on the 2018 Vote for Bolsonaro, published in BPSR, Vol. 15, N. 1, 2021

Nov 26, 2020 - Brazilian Political Science Review - Dataverse

Ribeiro, Ednaldo; Borba, Julian; Fuke, Mario, 2020, "Replication Data for: From Antipetismo to Generalized Antipartisanship: The Impact of Rejection of Political Parties on the 2018 Vote for Bolsonaro, published in BPSR, Vol. 15, N. 1, 2021", <https://doi.org/10.7910/DVN/OLRFGK>, Harvard Dataverse, V1

Article's DOI: <http://doi.org/10.1590/1981-3821202100010003>

Regional Life Quality Survey - 2014

Nov 26, 2020 - Regional Life Quality Survey

Fundacion Pienza, 2020, "Regional Life Quality Survey - 2014", <https://doi.org/10.7910/DVN/BTAMXE>, Harvard Dataverse, V1, UNF:6:ijGB-NEaxt30PAhc3BO2sA== [fileUNF]

Regional Life Quality Survey -2014 version. Its universe covers 7 urban provinces from the Valparaíso region and evaluates 8 dimensions concerning public policy, Work, education, public security, health services, public transport, urban equipment, housing and life satisfaction....

Regional Life Quality Survey - 2015


Nov 26, 2020 - Regional Life Quality Survey


Fundacion Pienza, 2020, "Regional Life Quality Survey - 2015", <https://doi.org/10.7910/DVN/JDHUBA>, Harvard Dataverse, V1, UNF:6:uLjWl-v96UqgXawWUWY4Q== [fileUNF]

Regional Life Quality Survey -2015 version. Its universe covers 7 urban provinces from the Valparaíso region and evaluates 8 dimensions concerning public policy, Work, education, public security, health services, public transport, urban equipment, housing and life satisfaction....



User interface: consistency with our design guidelines

Livraisons des colis et Mobilités des e-consommateurs : caractérisation des pratiques et des flux (2016) 

May 5, 2020 - ELIPSS 

Aguilera, Anne, 2020, "Livraisons des colis et Mobilités des e-consommateurs : caractérisation des pratiques et des flux (2016)", <https://doi.org/10.21410/7E4JOTU8V>, data.sciencespo, V2

L'enquête Livraisons des colis et Mobilités des e-consommateurs (LivMob), coordonnée par A. Aguiléra, a pour objectif d'identifier les déterminants du choix d'un mode de livraison et d'analyser tout particulièrement le rôle des territoires et des mobilités. L'enquête approfondit...

Territorial Dynamics and Wellbeing Household Survey - Colombia: Socioeconomic Data from rural-urban territories in Colombia, obtained in 2017-2018 

Nov 25, 2020 - Rimisp Dataverse 

Rimisp - Latin American Center for Rural Development; Universidad Iberoamericana; Universidad de los Andes, 2020, "Territorial Dynamics and Wellbeing Household Survey - Colombia: Socioeconomic Data from rural-urban territories in Colombia, obtained in 2017-2018", <https://doi.org/10.7910/DVN:YZ7Z73>, Harvard Dataverse, V1, UNF:6:7TKyDg+JcZ71XzSEaLZHbg== [fileUNF]

[English description below] Estos son los datos para Colombia de la Encuesta de Dinámicas Territoriales y Bienestar 2017-2018, parte del Programa Transformando Territorios de Rimisp, financiado por IDRC y realizado en colaboración, para su componente de investigación, con la Univ...



Next steps: improving our repository

We are currently collaborating with Dataverse on:

- Multilingualism (issue [#6607](#))
- DDI compliance (DDI import/export, OAI-PMH/OAI-DDI) (issues [#7388](#) [#7387](#) [#6751](#))

Merci !

If you have any question, contact us!

itcdsp-scpolt@sciencespo.fr

