

### The Advantages and Disadvantages of Three Software Solutions for the Development of a DDI-based Survey Catalogue

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# The French Institute for Demographic Studies (INED)



- A public research institute specialized in population studies structured in research units and support departments
- 8 main research themes: couple, family & sexuality; life expectancy, mortality & health; international migrations, discrimination & integration; housing, environment & territory; gender inequalities; the stages of the life cycle, ageing; the world's populations
- Carrying out of data collections (surveys, contextual databases...)





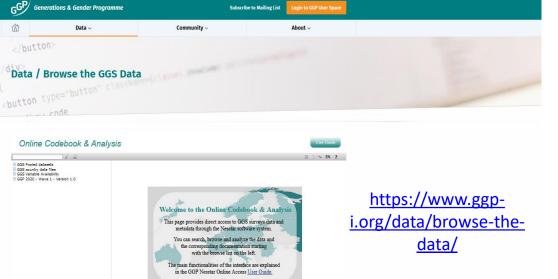
- Created in 2019 to centralise two types of activities:
  - Development & maintenance of aggregated and contextual databases
  - 2. Survey data documentation, dissemination & access requests
    - INED surveys
      - → INED Nesstar Catalogue
      - PROGEDO-Quetelet Diffusion (French Data Archive) data access platform
    - Generations & Gender Programme (GGP) Nesstar Catalogue

## DataLab Nesstar catalogues



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inter servalets of Markov en mene 3 disposition c.p://nesstar.ined .fr/webview	Comparing the server response of the the provide surface of the server ser

- Heterogeneity of themes and years (oldest in the 1940s)
- Target: the largest research community



- Target: GGP users' community
- Longitudinal panel surveys in Europe and beyond on family and life course trajectories

## A four-step study to choose a substitute for Nesstar



- 1. Identify the characteristics the new tool should meet
- 2. Identify possible tools to test
- 3. Evaluate the selected tools against key characteristics
- Implement and test the tools (only partially accomplished)

### 1. Looked-for characteristics



- The new tool should
  - Be compatible with Data Documentation Initiative (DDI) standard
  - Be harvestable by the Consortium of European Social Science Data Archives (CESSDA) catalogue
  - For INED surveys only, be compatible with new Quetelet-PROGEDO Diffusion data portal
  - Target the largest research community
  - Installable on INED servers
  - Maintain the strengths of Nesstar
  - Improve the weaknesses of Nesstar

### 1. Looked-for characteristics 1.1 Nesstar features to maintain/improve



Features to maintain	Features to improve
Compatible with DDI	<ul> <li>Outdated technology</li> </ul>
<ul> <li>Visualization of metadata</li> </ul>	<ul> <li>Poor search functionality</li> </ul>
about fieldworks	<ul> <li>Targeted towards a</li> </ul>
• Variable tabulations and graphs	specialized research
Data analysis functionalities	community
(e.g., linear regression and	
cross-tabulation)	
• Nesstar Publisher, a user-	
friendly DDI files editor	

### 2. Tools considered



- We have considered three tools:
  - 1) Dataverse (<u>https://dataverse.org/</u>)
  - 2) NADA Microdata Cataloging Tool (<u>https://nada.ihsn.org/</u>)
  - 3) Colectica Portal (<u>https://www.colectica.com/</u>)

## 3. Evaluate the selected tools 3.1 Dataverse...



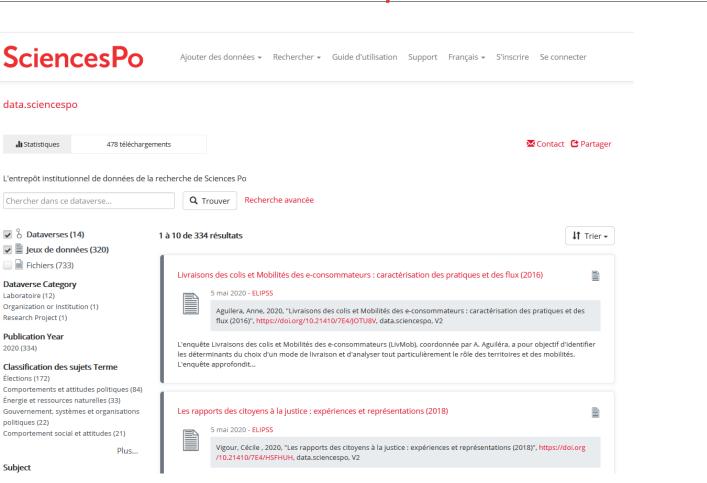
	Pros		Cons
•	DDI compliant	•	Needs to be customized
•	Open source tool	•	Needs a well established IT
•	Supported by Harvard University		infrastructure
	and CESSDA	•	No data analysis
•	User-friendly interface and search	•	No DDI files editor (Variable
	functionality		metadata can only be edited
•	Considered for implementation by		through the API or an external
	French archive (PROGEDO		tool)
	Quetelet Diffusion)		
•	Visualization of variable		
	distributions with an external tool		

## 3. Evaluate the selected tools ...3.1 Dataverse...



Looked-for characteristics	Evaluation
Be compatible with DDI	+
Be harvestable by CESSDA catalogue	+
Be compatible with Quetelet PROGEDO	?
Diffusion data portal	
Target the largest research community	+
Installable on INED servers	?
<ul> <li>Maintain the strengths of Nesstar (e.g.</li> </ul>	+/-
variable tabulation & data analysis)	
<ul> <li>Improve the weaknesses of Nesstar (e.g.</li> </ul>	+
search functionalities)	

## 3. Evaluate the selected tools ....*3.1 Dataverse - example*



The Dataverse installation at Sciences Po, Paris: <a href="https://data.sciencespo.fr/dataverse/sciencespo">https://data.sciencespo.fr/dataverse/sciencespo</a>

## 3. Evaluate the selected tools 3.2 NADA...



	Pros		Cons
•	DDI compliant	•	No data analysis possible
•	Free of charges	•	No DDI files editor
•	Already installed at INED		
•	Visualization of variable		
	distributions		
•	User-friendly interface and search		
	functionality		
•	Compatible with Nesstar DDI		
	version		

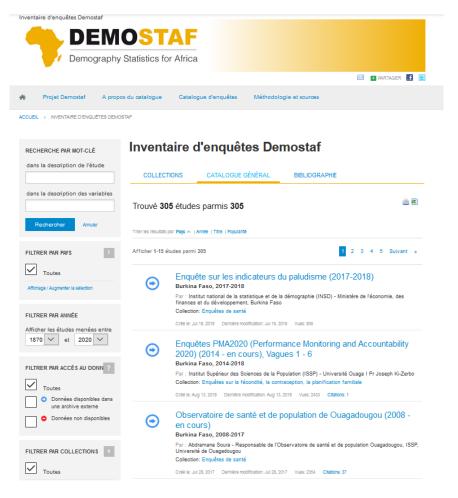
# 3. Evaluate the selected tools ...*3.2 NADA...*



Looked-for characteristics	Evaluation
Be compatible with DDI	+
<ul> <li>Be harvestable by CESSDA catalogue</li> </ul>	?
<ul> <li>Be compatible with Quetelet PROGEDO</li> </ul>	?
Diffusion data portal	
<ul> <li>Target the largest research community</li> </ul>	+
<ul> <li>Installable on INED servers</li> </ul>	+
<ul> <li>Maintain the strengths of Nesstar (e.g.</li> </ul>	+/-
variable tabulation & data analysis)	
<ul> <li>Improve the weaknesses of Nesstar (e.g.</li> </ul>	+
search functionalities)	

## 3. Evaluate the selected tools ...3.2 NADA – examples





### The NADA installation at INED:

### https://nada.web.ined.fr/index.php/catalog

### NOM LIBELLÉ

a401a\_a Who does hh tasks: Preparing daily Preparing daily meals meals

QUESTION

### PDF | Print

Who does hh tasks: Preparing daily meals (a401a\_a)

Fichier: GGS\_Wave1\_France\_V.4.3.

### Aperçu

Type: Discrète Enregistrements valides: 6085 Format: numeric Invalide: 3994 Largeur: 2 Décimales: 0 Intervale: 1-2147483624 Invalide: 37, 98, 99

DÉFINITION Q 401.a.a core questionnaire

Country specific additional values: - AUS: "2401-shared equally between all household members".

- NOR: "2001-other person from the list of providers and receivers".

Questions et instructions

### PRÉ-QUESTION

Now I would like to ask you some questions about who does what in your household. Please tell me who does the following tasks in your household, choosing your answers from the card: card 401-1 if R lives alone; card 401-2 if there is a partner in the household; card 401-3 if there is no partner in the household.

QUESTION LITTÉRALE Preparing daily meals

CATÉGORIES

Valeur	Catégorie	Enregistremen	ts
1	always R	1909	31.4%
2	usually R	899	14.8%
3	R and partner equally	953	15.7%
4	usually partner	990	16.3%
5	always partner	1309	21.5%
6	always or usually other persons in the household	13	0.2%
7	always or usually someone not living in the household	12	0.2%
2001	other person from the list of providers and receivers	0	0.0%
2401	shared equally between all household members	0	0.0%
97	does not know	0	
98	refusal	0	
99	no response/not applicable	3994	

pondérés. Ils ne peuvent pas être interpretés comme étant représentatifs de la population concernée.

View of a GGP variable in NADA (offline test)

## 3. Evaluate the selected tools 3.3 Colectica Portal...



	Pros		Cons
•	Compatible with DDI version 3.2	•	Commercial product; not
	Comparisons between variables		open source
	over time for longitudinal surveys	•	Features not strictly
	such as GGP		necessary for simple
•	Comes with a DDI files editor,		surveys
	Colectica Designer, with interesting	•	Resources necessary to
	features for GGP		take advantage of DDI 3.2
	ightarrow Conversion of Blaise files to DDI		features
•	Installed on local servers or on a cloud	•	No data analysis
•	Allows to browse variable		
	distributions		
•	Training workshops for users		15

# 3. Evaluate the selected tools ...3.2 Colectica Portal...



Looked-for characteristics	Evaluation
Be compatible with DDI	+
Be harvestable by CESSDA catalogue	+
Be compatible with Quetelet PROGEDO	?
Diffusion data portal	
Target the largest research community	-
Installable on INED servers	?
• Maintain the strengths of Nesstar (e.g.	+/-
variable tabulation & data analysis)	
<ul> <li>Improve the weaknesses of Nesstar (e.g.</li> </ul>	+
search functionalities)	

# 3. Evaluate the selected tools ...3.2 Colectica Portal – examples



Interviewer Instructions Identification Household Children Partnerships Current Co-Resident Partn Current Non-Resident Partn Current Non-Resident Part Intentions of Union Forma Partnership History Child Alimony/ Maintenand Partner alimony Both Co-resident and Non Household Organisation and F Household organisation	<ul> <li>a310         <ul> <li>Have relationship to somebody without cohabitation</li> <li>a312a</li></ul></li></ul>		DIE DESCI Name Label Question Text	Generations and Generations and Generations and Generations and Generationship Are you currently h someone you're not he/she does not live cover heterosexual you have a partner questions as well.	to somebody w aving an intima living with? Th together with relationships, b of the same sey	ithout cohabitati e (couple) relati is may also be yı you. Our survey ut also same-sex	ion ionship with our spouse if does not only x relationships.	311AgeR »
- 🗀 Partnership quality				005_Wave1_V.4.5.				or
Parents and Parental Home	+ a314a Ever legally married with non-	Value	Label		Frequency	% of valid		% of all
Fertility	resident partner	1	yes		12,205	18.82%		0.00%
Health and Well-Being	<b>+</b> a314c	2	no		52,635	81.18%		0.00%
Respondent's Activity and Inco	Still married	7	does not kn		6			0.00%

### View of a GGP variable description (test in a cloud hosted solution)

GGP Search Explore	Baskets 🕕			🤁 Help 👻 💄 arianna.caporali@ine
8 0 0 0	Concordance			
opears Within	Statistics Code Comparison	Correspondence Tree		
Series	code companson			
🖵 💷 The Generations & Gender Pr	Generations and Gender Survey Wave	1 - Consolidated - Generations and Gender Surve	Wave 2 - Consolidated Generations and Gende	r Survey Wave 3 - Consolidated
<ul> <li>Studies</li> <li>Generations and Gender Surv</li> </ul>	% of valid % of total			
👼 Data Files		The Generations & Gender Programme (GGI	?)	
Legis Generations and Gender Surv		GGS Wave 1 - Cons.	GGS Wave 2 - Cons.	Generations and Gender Survey Wave 3 - Consolidated
		Generations and Gender Survey Wave 1 - Consolidated a310	Generations and Gender Survey Wave 2 - Consolidated b310	Generations and Gender Survey Wave 3 - Consolidated c310
	1 - yes 18.82% 14.61%	,		
	2 - no 81.18% 85.39%	2		
	7 - does not know			
	8 - refusal			
	9 - no response/not applicable			
	Sysmiss -			
	Dataset	Variable Valid Invalid	Min First Quartile Median Third Quar	tile Max Mean StdDev
	▼ Generations and Gender Survey W	ave 1 - Consolidated a310 64840		
	▼ Generations and Gender Survey W	ave 2 - Consolidated b310 24359		

Comparison of GGP variables a310 (wave 1) and b310 (wave 2)

## 4. Implementation and test of the tools



- Dataverse
  - $\rightarrow$  Test expected next year
- NADA Microdata Cataloging Tool
  - → need to test if harvestable by other data catalogues
- Colectica
  - → Designer: test is ongoing for GGP surveys with good results
  - Portal: test done only with the cloud hosted solution with good results

### Conclusion



- There is no perfect substitute for Nesstar
- INED survey catalogue will be based on Dataverse or NADA
- We will use a different tool for GGP  $\rightarrow$  Colectica
- What criteria should guide the choice of a software for a DDI-based survey catalogue ?
  - → contextual criteria:
    - Available resources
    - IT infrastructure
    - Target audience
    - Specific needs (e.g., longitudinal surveys)





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### Thank you!

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