

Revitalizing At-risk Data

The Canadian Public Data Rescue Initiative



Data Management

Research Data Management is a growing field dedicated to developing ways to ensure that the knowledge content of data is preserved

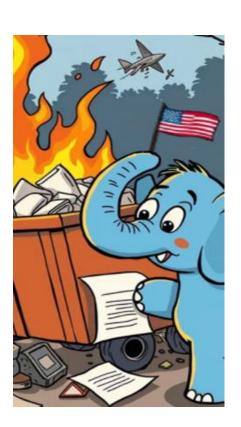
Computer scientists work at the bit level to ensure that files remain readable, useable and reliably uncorrupted

Data librarians work on the human side to ensure that data is documented and organized, that implicit knowledge is recorded explicitly and that data reliably represents what it purports to represent

A Crisis in Politics and Data

Data loss is usually thought of as inadvertent - a server died, the files were corrupted, someone updated something and wrote over the earlier version Currently the U.S is deliberately creating a public data crisis - defunding data collection projects and deleting inconvenient statistics. Casualties include

- Near elimination of the <u>National Centre for Education Statistics</u>
- Ending <u>international programs funded by USAid</u> including the renowned Demographic and Health Surveys
- Newly <u>unreliable economic data</u>
- Vanishing <u>environmental and disaster data</u>
- Suppression of <u>studies on right-wing violence</u>



Public data

- Government-collected survey and monitoring data is a major and difficult to ignore or discredit – source of information on social inequity, changing conditions and policy impact
- Economic, social, health, and environmental data are used to support and evaluate policy and become irrelevant when the only policy goals are to implement ideology, concentrate power and silence dissent.

The Data Rescue Project

In February 2025 several academic and nonprofit associations got together to form the Data Rescue Project. Founding members included the international association of data professionals IASSIST, the Data Curation Network, and Research Data Access & Preservation (RDAP)

Since then they have worked to download data, create documentation, and prepare the data for ingest into platforms such as ICPSR's DataLumos

They have developed trackers to reduce duplication of effort and systems for coordinating the efforts of volunteers. As it is not possible to create automated processes for all these different resources, this requires immense hands on effort, and they've hosted several data rescue events to bring in volunteers

Data loss in Canada

Canada has flirted with data destruction. Harper Conservative government cut:

- 2009 onwards several education data programs
- 2010 Canadian Foundation for Climate and Atmospheric Sciences; ongoing eliminations of climate and environment data continue over next few years
- 2011 Census long form eliminated, disrupting the baseline for all social and health statistics collected in Canada
- 2012-2013 elimination of <u>First Nations Statistical Institute</u>
- Partial defunding of Statistics Canada

Census and some environmental collections reinstated by Trudeau government 2016 onwards.

Data resistance and rescue in Canada

2010 - Canadian Association of Public Data Users was one of many groups to push back on the cancellation of the Census long form among other losses. Kristi and librarian Kim Silk maintained a blog from 2010 to 2014 monitoring the situation, reporting on casualties and pushback, and sharing resources

2015 - group of librarians in Ontario (including Kristi and Alexandra noticed that some of the government data being "shared" on the Open Government Portal was unusable. We formed a group to rescue this data by hunting down missing metadata and preparing the data for ingest into University portals. Included unique collections from Health Canada:

- Children's Health and Safety Survey
- HIV Attitudes and Behaviours
- Adolescent Drug Use

Other outputs included a how-to guide on Data Rescue, an article (<u>Documentation as Data Rescue</u>), and conference presentations.

Larger group lapsed after a couple of years but Kristi and Alex continued to meet occasionally to discuss data rescue and hoard files in need of preservation

Do something?

After reading about the American Data Rescue Project, Kristi posted on CanLibData: "I was wondering if there were any Canadian data library type initiatives to work on this... Or any interest in starting one?"

Eugene Barsky: "Please count me in, Kristi!" and other expressions of interest in support. Oddly, no one else seemed interested in actually starting something.

Coincidentally, Alex and Kristi had one of their regular Canadian data rescue

chats scheduled the following week



CPDRI Committee

Project Co-Chairs

- Alexandra Cooper, Queen's University
- Kristi Thompson, Western University

Leadership Committee

- Ken Lui, University of Toronto
- Eve Paquette-Brigas, University of Montreal
- Tracy Sallaway, Trent University
- Leanne Trimble, University of Toronto

First meeting

Canadian data community met in February 2025

- Is there anything we can do collectively to help our US colleagues?
 - Sub-group worked through spring and summer contributing metadata to <u>ICPSR</u>
 <u>DataLumos</u>
 - Winding down this work to focus on Canadian curation work
- How can we ensure that the Canadian government data is safe?
 - Decided to start with data in the <u>Canada Open Government Data Portal</u>
 - All federal ministries and departments are required to publish data created within privacy and sensitivity rules
 - Data available in both languages as CSV or Excel (generally) with documentation in PDF or Excel
 - Pilot Environment and Climate Change Canada
 - Recommended datasets from the community <u>recommendation form</u>

CPDRI communication and storage

Website: https://sites.google.com/view/cpdri/home

Email: canadianpublicdatarescue@gmail.com

Listserv - CanDataRescue (hosted at UBC):

https://researchdata.library.ubc.ca/learn/candata-rescue-listserv/

Storage:

- Google Drive hosted at MacEwan University (administration, documentation, "one-off" datasets)
- Data staging: Alliance Next Cloud

Data Distribution: Borealis, The Canadian Data Repository

Canadian Public Data Rescue Initiative - https://borealisdata.ca/dataverse/CPDRI



Challenge – 1 dataset, 3 access points

Open government portal

Maps of reporting facilities - virtual globe format

Have your say

Rate this dataset Provide feedback

Additional Information

Creator: Environment and Climate Change Canada

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of pollutant releases (to air, water and land), disposals and transfers for recycling.

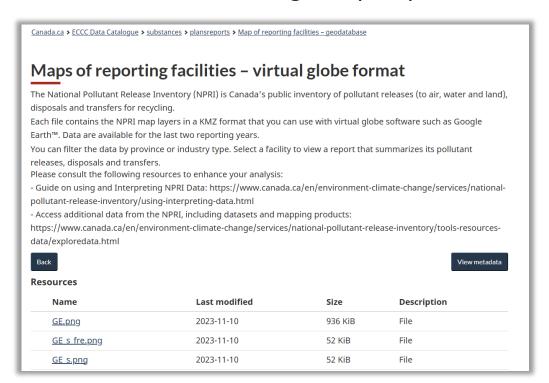
Each file contains the NPRI map layers in a KMZ format that you can use with virtual globe software such as Google Earth™. Data are available for the last two reporting years.

You can filter the data by province or industry type. Select a facility to view a report that summarizes its pollutant releases, disposals and transfers.

Please consult the following resources to enhance your analysis:

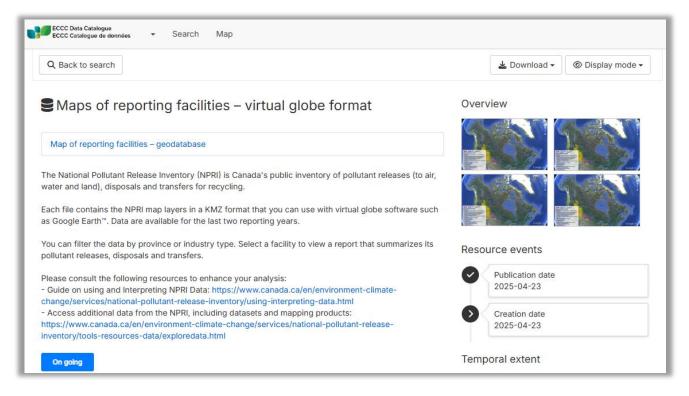
- Guide on using and Interpreting NPRI Data: https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/using-interpreting-data.html
- Access additional data from the NPRI, including datasets and mapping products:

ECCC data catalogue (old)



Maps of reporting facilities - virtual globe format - ECCC Data Catalogue

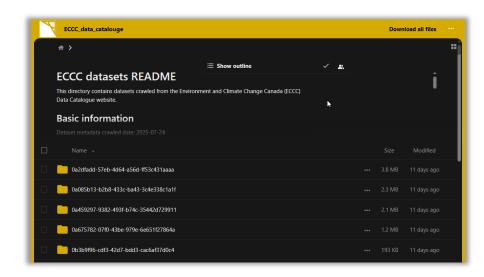
ECCC data catalogue - new



ECCC Data Catalogue / ECCC Catalogue de données

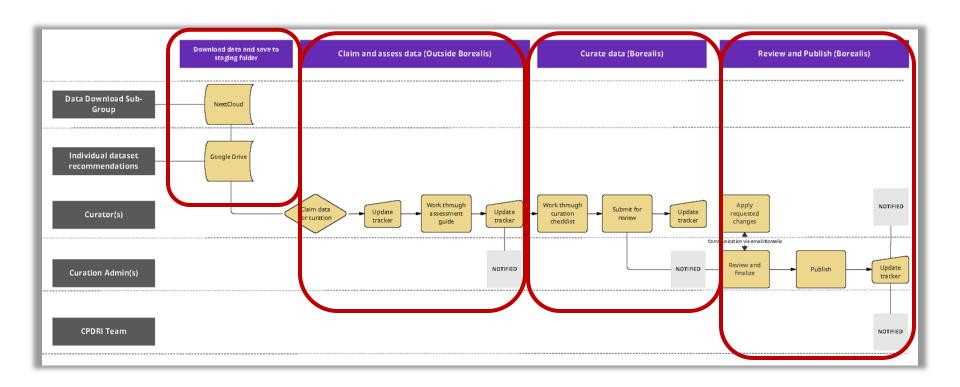
Workflow

- Webscraped open data portal to get datasets and metadata
 - Data files from ECCC Data
 Catalogue Old then;
 - Metadata of the dataset from ECCC Data Catalogue - New
- Compiled spreadsheet of the files downloaded
- Used Alliance's Machine (Fir) to download the files and put in folder

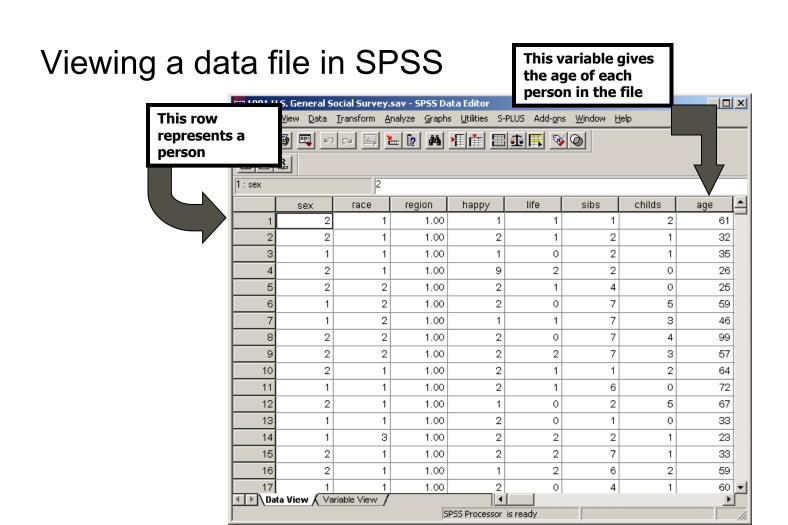




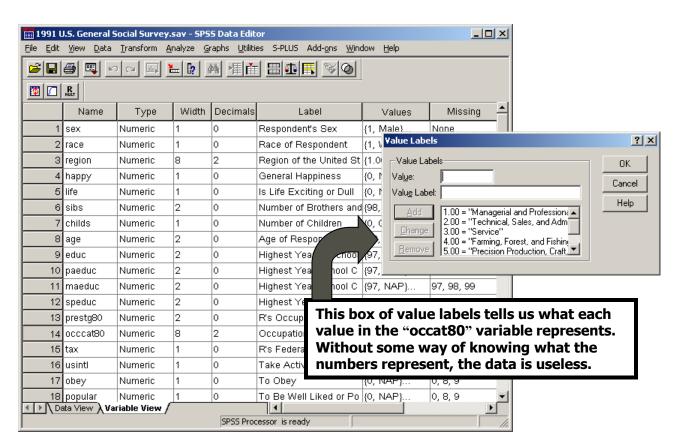
Curation workflow overview







SPSS variable view



Canadians' Understanding of Issues Related to the Aging Population - Employment and Social Development Canada

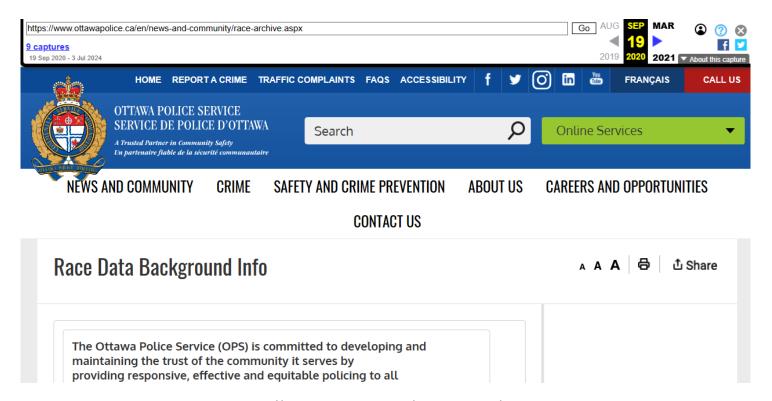
id	argid	q1	q1a	quota q2	q3			
20002	102391	2	6	Question	C Question	Answer Code	Answer	
20004	106422	2	4	id	ID			
20005	103034	2	6	argid	ARGID			
20006	102201	2	1	q1	1. To begin, in which offici	1	English	
20007	104639	2	3	q1	1. To begin, in which offici	2	French	
20008	100386	2	2	q1	1. To begin, in which offici	3	Don't know/	Refused
20009	103010	2	6	q1a	1A. What age group do you	1	18 to 24	
20010	105108	2	5	q1a	1A. What age group do you	2	25 to 34	
20011	104370	2	4	q1a	1A. What age group do you	3	35 to 44	
20012	106018	2	3	q1a	1A. What age group do you	4	45 to 54	
7 113	103392	2	Λ	q1a	1A. What age group do you	5	55 to 64	
	Data			q1a	1A. What age group do you	6	65+	
				q1a	1A. What age group do you	. 7	Refused	

Beat it half to death in Excel

* Encod	ling: UTF-8.								
VARIAB	BLE LABELS								
id	"ID"								
argid	"ARGID"			Eveel					
q1	"1. To begin, in which official language would you prefer to be interviewed?								
q1a	"1A. What age group do you fall into?"								
quota	"Quota"	ADD VALUE LABELS	q1	1	"English".				
q2	"2. Thinking of the issues facing Cana	ADD VALUE LADELS	q1	2	"French".				
q3	"3. How would you rate the current state	e of ADD VALUE LAREIS	•	3	"Don't know/Refused				
q4	"4. How would you rate the current stat	e or			"18 to 24" .				
q5	"5. Thinking again about issues facing	Car ADD VALUE LABLES	Чта						
q6	"6. Are you currently retired?"	ADD VALUE LABELS		2	"25 to 34".				
q7	7. Are you fully retired or still working 	part-t ADD VALUE LABELS	q1a	3	"35 to 44".				
1		ADD VALUE LABELS	q1a	4	"45 to 54".				
	Actual SPSS	ADD VALUE LABELS	q1a	5	"55 to 64".				
	Syntax	ADD VALUE LABELS	q1a	6	"65+".				

https://borealisdata.ca/dataverse/LabourEmployment

Ottawa Police Services data



https://borealisdata.ca/dataverse/crime

Citizen Science – Health Canada

		Α	G	Н	J	K	L	М	N	0	Р
	ID		region/rég	gender/ge	birth_year	age/âge	q1_1	q1_2	q1_3	q1_4	q1_5
		1	Manitoba	Female	1983	35 to 44	#NULL!	#NULL!	#NULL!	4	#NULI
Data		2	Quebec	Female	1951	65 or older	#NULL!	#NULL!	#NULL!	#NULL!	#NULI
Data		3	Ontario	Male	1963	55 to 64	Participate	#NULL!	3	4	#NULI
		4	Atlantic	Female	1978	45 to 54	#NULL!	#NULL!	#NULL!	4	#NULI
		5	Ontario	Male	1980	35 to 44	#NULL!	#NULL!	#NULL!	4	#NULI
		6	Ontario	Female	1999	18 to 24	#NULL!	2	#NULL!	#NULL!	
		7	Oughas	Mala	1000	55 to 64	#NILIL L	#NIIII I I	#NIIII I	4	#NII II I

Columns: q24 to q44= respondents answered on a scale from 1-4; 1=Not at all; 4=Very much

Columns: q46_1 to q46_20 and q47_1 to q47_7

- 1= Emails (active notification)
- 2= Smart phone notifications and/or text messages (active notification)
- 3= Social media feeds
- 4= Community meetings
- 5= Newsletter (active notification)
- 6= Updates on webpage/Participatory Research/Citizen Science platform when I





Where from here?

- Need to create a way for this project to sustain itself long term
- Build documentation and infrastructure
- Look into rescuing older public data on CD

The Canadian Public Data Rescue Initiative

Co-chairs

- Kristi Thompson, Western University, kthom67@uwo.ca
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Web site
Borealis archive