Using OpenRefine for Exploring Library Collections Metadata

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Have data to explore? Try *OpenRefine**!

What is it?
- Open-source tool
- Data wrangling tool used for cleaning, manipulating, transforming, normalizing and reconciling data
- Uses your web browser as an interface

Why should I use it?
- Provides easy browsing of data
- Provides previews of data manipulations
- Great for programmers and non-programmers alike
- Free!

What kind of data can I use?
- Allows for a variety of input formats such as Excel, CSV, XML and Google data (i.e. Google Docs)
- Got metadata in spreadsheet format? OpenRefine works great with data where one line = one record

Where can I get it?
- Check out openrefine.org for download, FAQs, GREL recipes and more
- Check out the OpenRefine wiki on Github at github.com/OpenRefine/OpenRefine/wiki

How do I use it?
- Openrefine.org includes list of tutorials around the web
- Check out "Using OpenRefine" (Packt Publishing, 2013)
- Just start playing with data!

*formerly Google Refine

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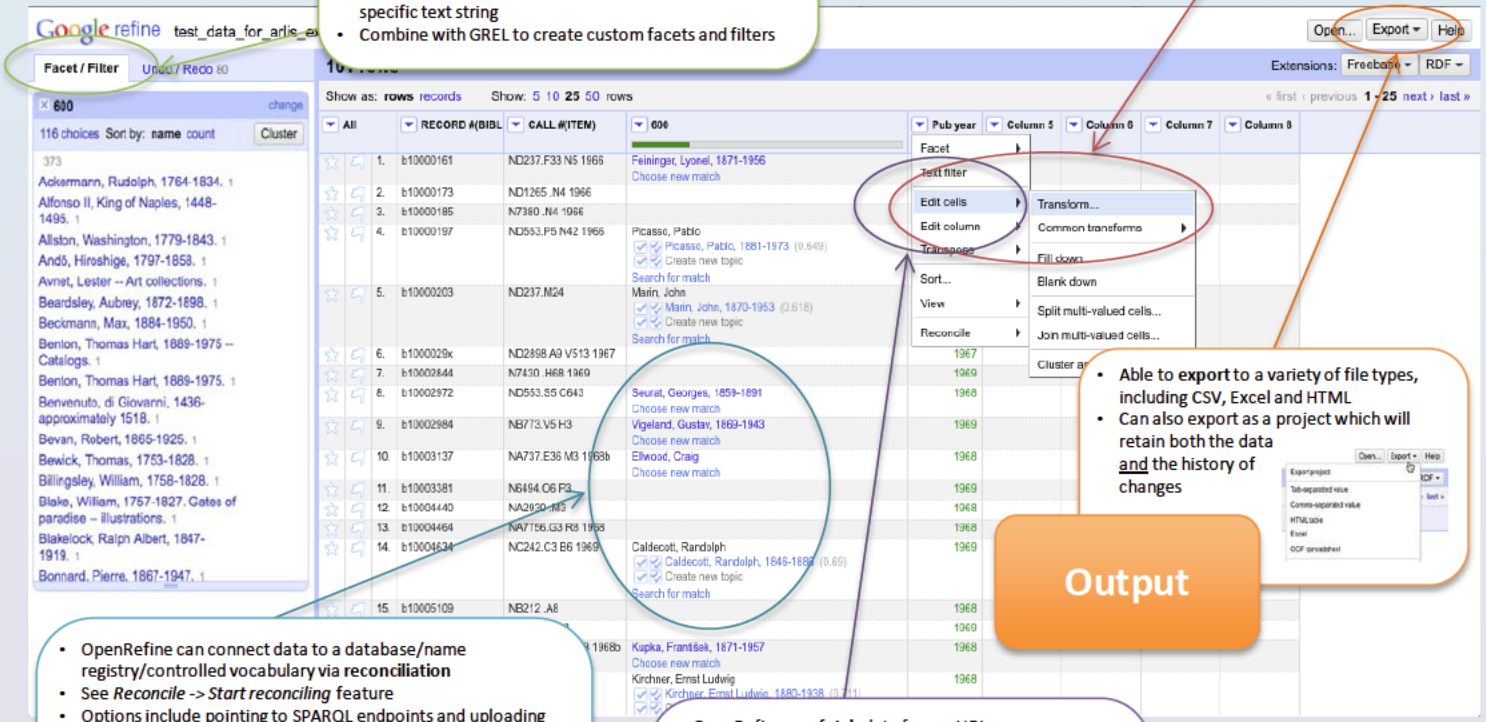
Facets & Filters

- The most basic feature of OpenRefine: **facets** and **filters** are great for browsing and seeing a big picture of your dataset
- For each column, users can go to *facet -> text facet*, then sort by text or by number of cells included in the group
- Useful for finding duplicates in your data
- Can also perform a **text filter** to find cells that include a specific text string
- Combine with GREL to create custom facets and filters

GREL

- **GREL** = "Google Refine Expression Language"
- Think in patterns! If there's a pattern in your data, you can likely write a GREL statement to transform it.
- Can start with a facet or filter to isolate data, then perform a GREL expression to transform that group
- Plenty of GREL recipes around the web to start with – Google around!
- Great for cleaning and parsing data in batches



Output

- Able to **export** to a variety of file types, including CSV, Excel and HTML
- Can also export as a project which will retain both the data and the history of changes

Reconciliation

- OpenRefine can connect data to a database/name registry/controlled vocabulary via **reconciliation**
- See *Reconcile -> Start reconciling* feature
- Options include pointing to SPARQL endpoints and uploading local RDF files
- For example, have a list of personal names you want to normalize? Try reconciling them against LC authority names
- Allows for "high confidence" and manual matching

Fetching URLs

- OpenRefine can **fetch** data from a URL
- See the *Add Column by Fetching URLs* option on a column of data
- For example, have a column of locations in your data? Try geocoding them by collecting data from URLs from Google Maps

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