## Introduction to Open Data: Tools and Techniques for Data Sharing and Collaboration

OpenRefine: The data cleaning and Transformation tool that will make you data sing!

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## Open Data: Tools and Techniques for Data Sharing and Collaboration

OpenRefine: The data cleaning and transformation tool that will make your data sing!

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### Introduction



### What is OpenRefine?

OpenRefine is a free and open-source data cleaning and transformation tool. It can be used to clean messy data, merge datasets and generate new insights

## Why OpenRefine?

- OpenRefine is a powerful tool for cleaning messy data, merging datasets and generating new insights.
- It is easy to use and it is available for free.
- It is a community-driven project, which means that there is a large and active community of users who are willing to help each other.

## Who uses OpenRefine

- Data Scientist
- Researchers
- Journalists
- Students
- Data Enthusiasts
- Librarians & Information
   Specialists
- Governments and Public Sector workers

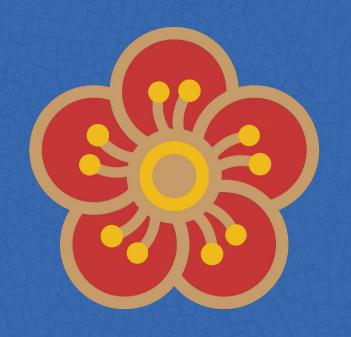


# Downloading OpenRefine

#### **Downloading OpenRefine**

- You can download openrefine from the openrefine website: <a href="https://openrefine.org/">https://openrefine.org/</a>
- OpenRefine is available for Windows, macOS and Linux.



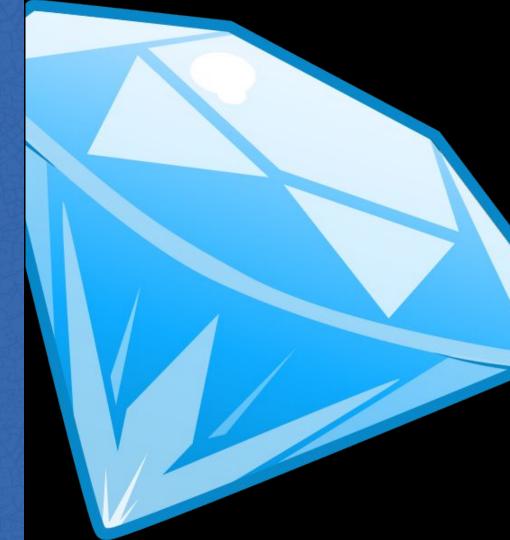


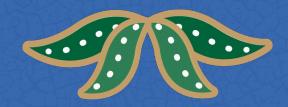
**Installing** 

OpenRefine

#### **Installing OpenRefine**

- Once you have downloaded
   OpenRefine, you can install it by following the instructions on the openrefine website:
   https://operefine.org/
- Openrefine is a relatively easy tool to install





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## **Running OpenRefine**

#### **Running OpenRefine**

- Once you have installed the openrefine you can run it by opening the openrefine application.
- Openrefine will open a new window.



## **Starting a Project**

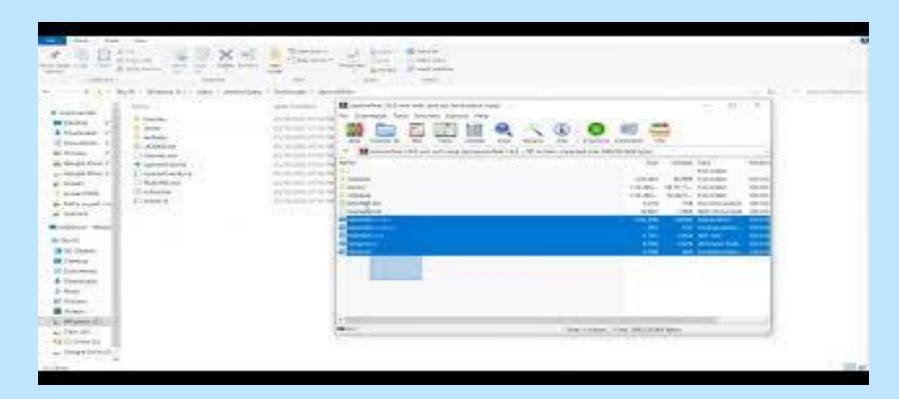
OpenRefine



#### **Starting a Project**

- To start a new project in openrefine, click on the "create project" button.
- You will be prompted to select a data source.
- You can select a data source from your computer or url.





#### Wikimania Singapore

## **Exploring Data**



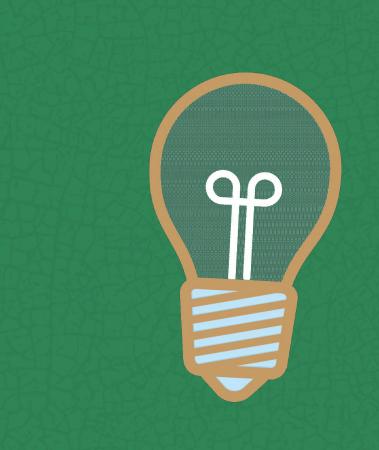
#### **Exploring Data**

- Once you have imported a data source into openrefine, you can explore the data by using the "explore data" tab.
- The explore tab provides a number of tools for exploring your data.



## **Transforming Data**

OpenRefine



### **Transforming Data**

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<u> https://openrefine.org/</u>

 OpenRefine is available on Windows,macOS and Linux



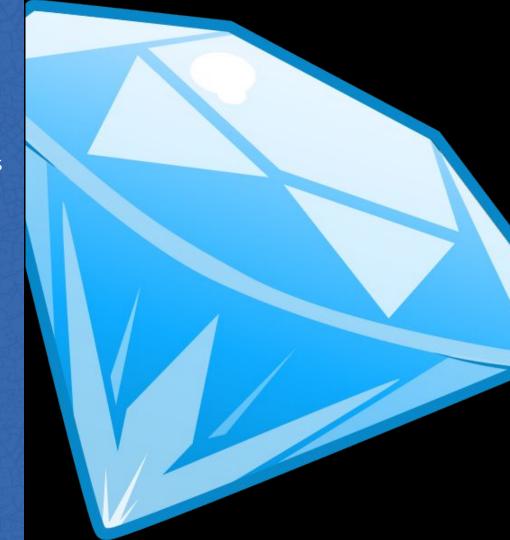
## Reconciling

OpenRefine



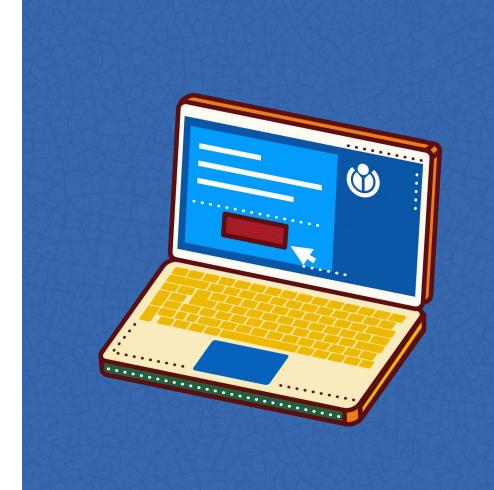
#### Reconciling

- If you have multiple data sources that contain the same data, you can reconcile them by using the "Reconcile" tab.
- The reconcile tab provides a number of tools for merging and aligning your data sources.



# Video-walk through

OpenRefine



## Wikibase, Wikidata & Wikimedia Commons

OpenRefine



## Wikibase, Wikidata & Wikimedia Commons

- OpenRefine can be used to connect to wikibase, wikidata & wikimedia commons.
- This allows you to use the data in your openrefine project to enrich and improve other wikimedia projects.



## **Expressions**

OpenRefine



#### **Expressions**

- OpenRefine allows you to use expressions to calculate new values from your data.
- Expressions can be used to calculate simple values such as, the sum of a column of numbers, or they can be used to calculate more complex values, such as a the average of a column of numbers with specific conditions.





## **Exporting Data**

OpenRefine

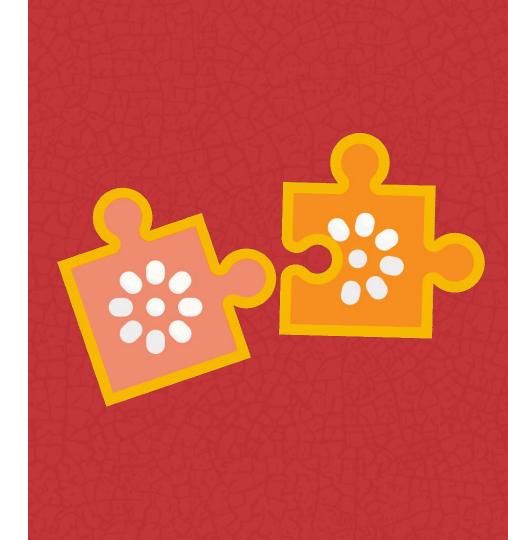
#### **Exploring Data**

- Once you have finished transforming your data, you can export it from OpenRefine.
- You can export your data in variety of formats, including csv files, XML files and Json files.



### **Troubleshooting**

OpenRefine





If you encounters any problems while using OpenRefine, you can refer to the OpenRefine documentation:

https://openrefine.org/docs/ or the OpenRefine forum:

https://forum.openrefine.org/ or telegram:

https://t.me/+fRTPbCDKpKwyY2Jk Github:

https://github.com/OpenRefine/OpenRefine/wiki/External-Resources

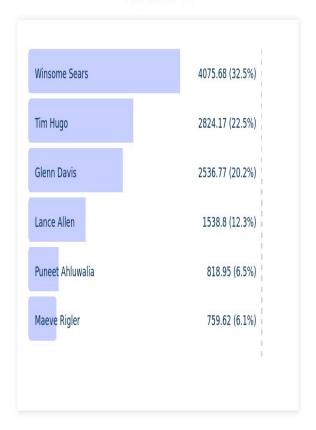
OpenRefine

#### **Visualize Data**

- Once you have cleaned and transformed your data, you can visualize it using wedodatascience.com:
   https://wedodatascience.com/
- wedodatascience.com provides a number of tools for visualizing data including charts, graphs and maps



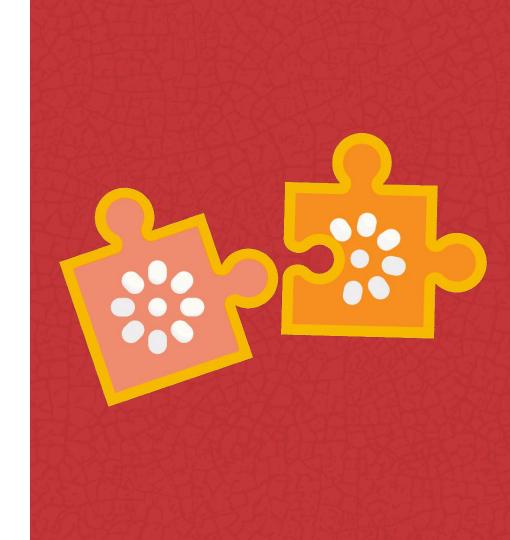
#### Round 1



Ranked-Choice Voting results for Virginia GOP Convention, Lieutenant Governor Nominee

## For more tools: wikidata:tools

OpenRefine



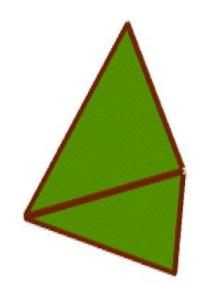


### Conclusion

OpenRefine

#### Conclusion

- OpenRefine is a powerful tool for cleaning messy data, merging datasets and generating new insights.
- It is easy to use and it is available for free.
- If you are working with data, i encourage you to check out Openrefine.



## **Questions?**

OpenRefine







