Intro to Digital Mapping in Flourish

Lab for Education & Advancement in Digital Research (LEADR)
MSU Department of History and Department of Anthropology leadr.msu.edu

CLASS INFORMATION - HST 804 | Professor Hawthorne | Spring 2025
LEADR GA INFORMATION - Marissa Knaak | knaakmar@msu.edu | Lab hours: Monday 12-5, Wednesday 3:30-5, Thursday 11-5, Friday 10-1, and by appointment. Appointments outside of these hours, in-person or on zoom, are available. Please email to set up a time.

- Whenever you contact a GA, include your name, class, and professor.
- When you have questions about an assignment, include the handout and specific step number in your email if there is one.

The Lab for Education & Advancement in Digital Research (LEADR), is a space where undergraduate and graduate students learn digital methods to create and communicate innovative social science research. Through class visits and individual consultations, students can learn, experiment, and build digital projects using a variety of tools and technologies. LEADR is a project of the Department of History and the Department of Anthropology at Michigan State University.

CLASS OVERVIEW

During this class, we will be introduced to Flourish and Graph Commons as tools for visualizing data. This handout introduces Flourish, some of the tools, and provides an exercise using one of the mapping options

LEARNING GOALS

- Students will be introduced to Flourish
- Consider the ways in which parts of students' research could be visualized in Flourish
- Familiarize students with the different types of visualizations Flourish offers
- Practice making a map in Flourish

WORKSHOP INSTRUCTIONS

PART 1: Data Visualization

When we consider data visualization, we often think of sharing our work with public audiences. However, we can also use data visualizations to help us interpret information (for example, identifying trends to analyze). Another part of creating visualizations is the dataset. You may have an existing dataset, but probably will have to create your own. It is important to identify elements of your dataset and remain consistent as you work. You will also need to have a clean dataset or to clean your dataset before importing it into a visualization program.

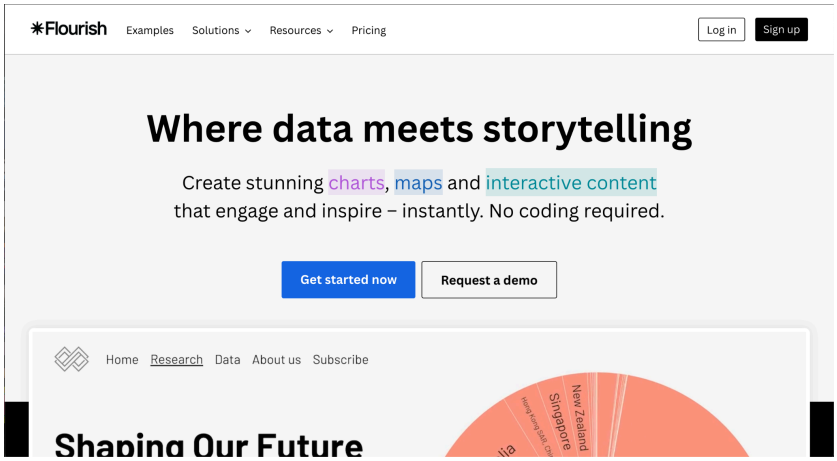
Discussion questions:

- What type of information do you have or think you may have from your research that you could use in a visualization?
- What are some types of visualizations that you could use in your own research?
- What are some of the potential pitfalls of using visualizations?

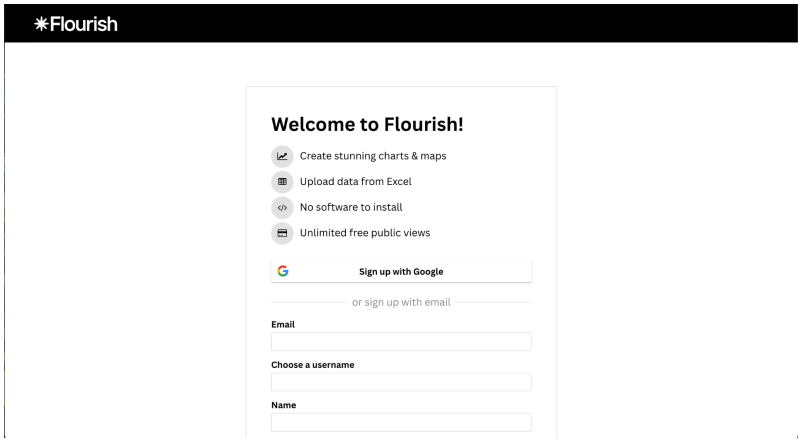
PART 2: Flourish

Flourish is an online platform for making charts, maps, and other interactive visualizations. You do not need to know coding or have advanced skills to make visualizations, including interactive ones, in the free version. Each visualization comes with a pre-loaded dataset so you can see what information you need.

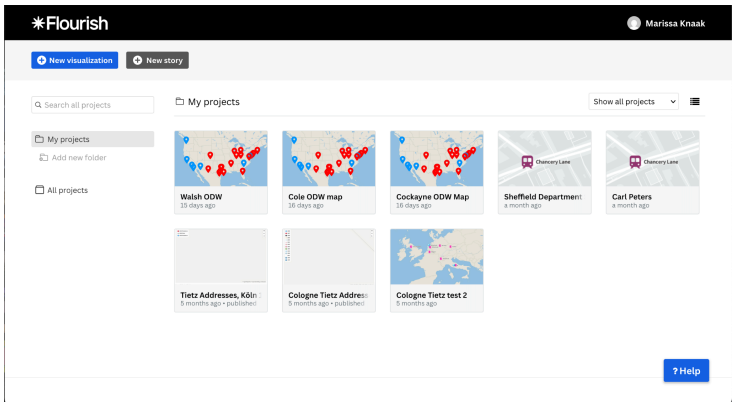
1. Go to https://flourish.studio/ and click “Sign Up”



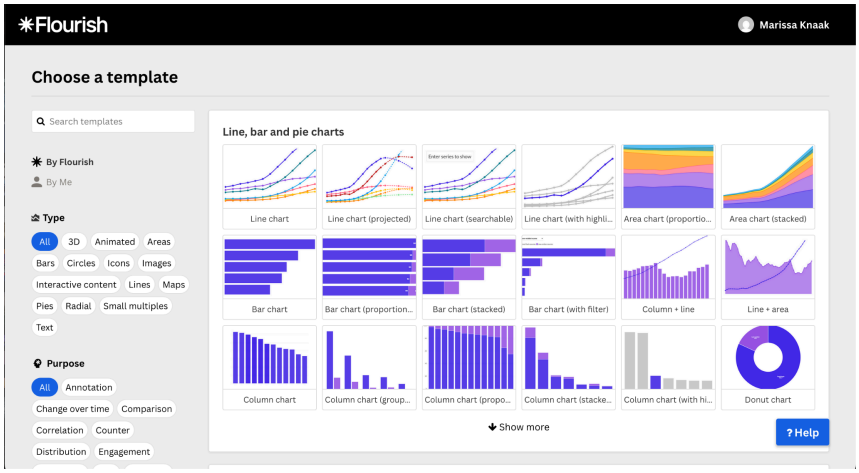
2. You can make an account with any email or link a Gmail account



3. Once you are on your dashboard, click “New Visualization”



4. This will take you to the Templates menu. Along the left side, you can refine your options. You can also scroll down to see the different options and categories.



   a. You can choose from line, bar, and pie charts; projection maps; scatter plots; 3D maps; pictograms; marker maps; bar chart races; hierarchies; Sankey diagrams; network graphs; and many others.
   b. In Part 3, we will be using one of the mapping, but you are also welcome to experiment with other options.
5. Choose one option and look through the example dataset.

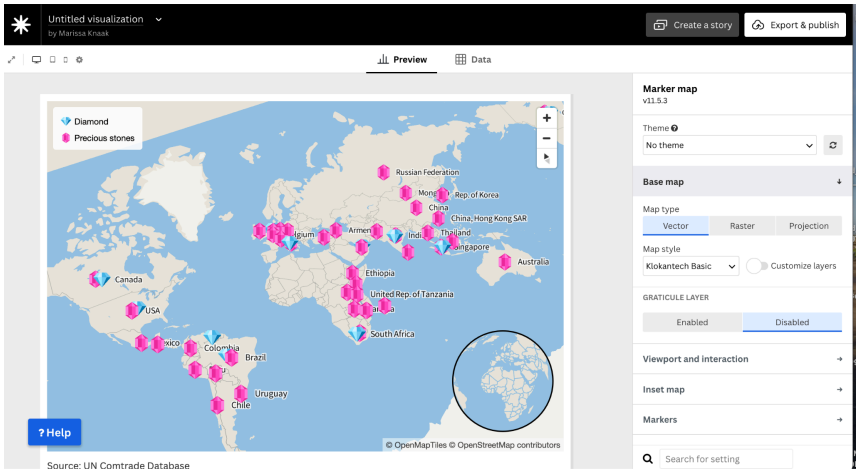
Discussion

- Which type did you choose? What did you learn?
- After looking at the options on Flourish, what type of visualizations might work in your own research?

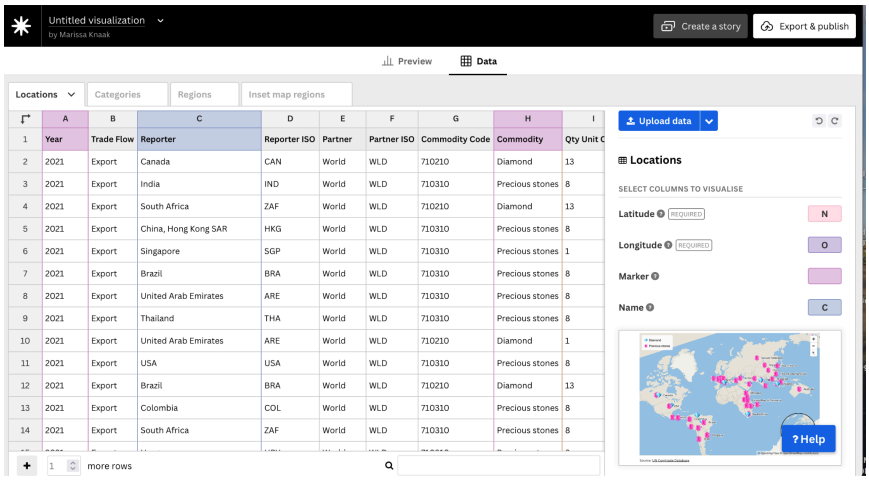
PART 3: Flourish Mapping

We will be using one of the Flourish Mapping tools to create an example visualization. This will familiarize you with the different parts of the visualization and the parts of the dataset. We will be using the marker map, which allows you to place pins on a map based on latitude and longitude. Other maps, like the projections, are based on information for various geographic areas (like countries, states, constituencies, and counties).

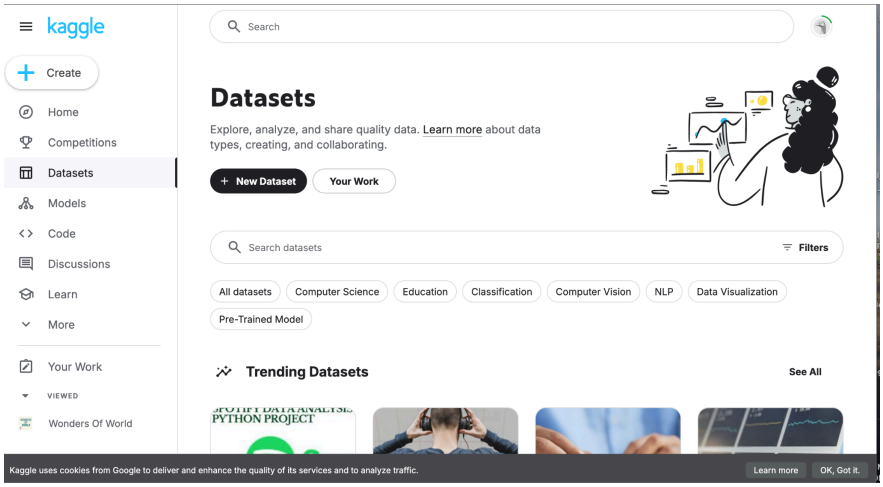
1. From the list of visualizations, click “emoji map.” The example dataset is about the export of diamonds and other precious gems.



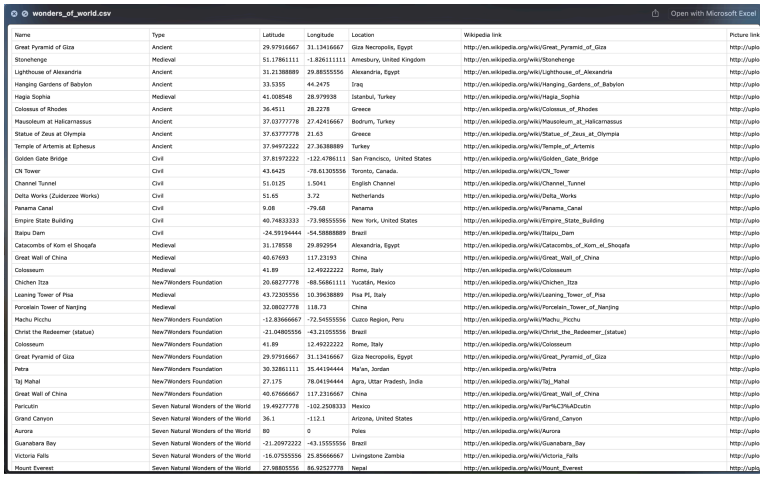
2. If you click “Data” you can see the different information used.



3. We will be replacing this with a different dataset. This dataset is from Kaggle.com, which is a source to learn different skills, but also to access free datasets.

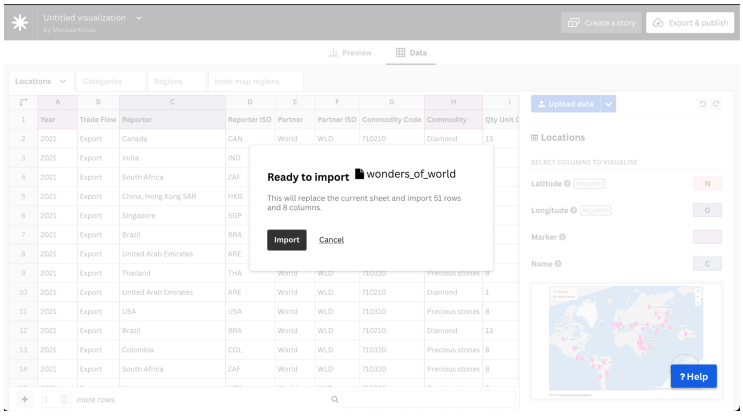


4. Download the dataset I have provided. You will need to save dataset files as csv (comma separated values) rather than Excel files or other proprietary softwares.

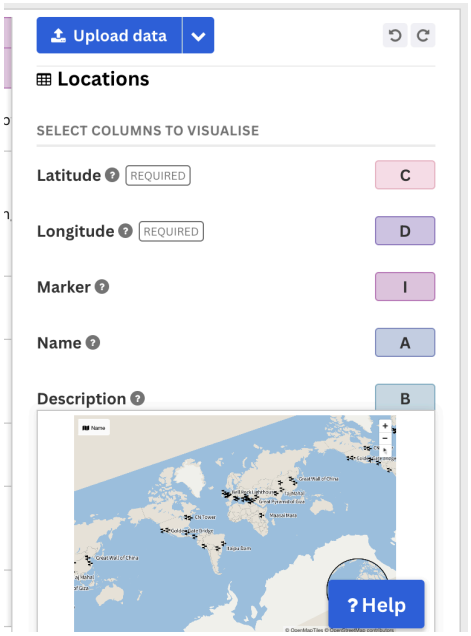


Name	Type	Latitude	Longitude	Location	Wikipedia link	Picture link
Great Pyramid of Giza	Ancient	29.97916667	31.13416667	Giza Necropolis, Egypt	http://en.wikipedia.org/wiki/Great_Pyramid_of_Giza	http://upload
Stonehenge	Medieval	51.17861111	-1.826111111	Amesbury, United Kingdom	http://en.wikipedia.org/wiki/Stonehenge	http://upload
Lighthouse of Alexandria	Ancient	31.2138889	29.88555556	Alexandria, Egypt	http://en.wikipedia.org/wiki/Lighthouse_of_Alexandria	http://upload
Hanging Gardens of Babylon	Ancient	33.5355	44.2475	Iraq	http://en.wikipedia.org/wiki/Hanging_Gardens_of_Babylon	http://upload
Hagia Sophia	Medieval	41.008548	28.979938	Istanbul, Turkey	http://en.wikipedia.org/wiki/Hagia_Sophia	http://upload
Colossus of Rhodes	Ancient	36.4511	28.2278	Greece	http://en.wikipedia.org/wiki/Colossus_of_Rhodes	http://upload
Mausoleum at Halicarnassus	Ancient	37.03777778	27.42416667	Bodrum, Turkey	http://en.wikipedia.org/wiki/Mausoleum_at_Halicarnassus	http://upload
Statue of Zeus at Olympia	Ancient	37.63777778	21.63	Greece	http://en.wikipedia.org/wiki/Statue_of_Zeus_at_Olympia	http://upload
Temple of Artemis at Ephesus	Ancient	37.94972222	27.36388889	Turkey	http://en.wikipedia.org/wiki/Temple_of_Artemis	http://upload
Golden Gate Bridge	Civil	37.81972222	-122.4786111	San Francisco, United States	http://en.wikipedia.org/wiki/Golden_Gate_Bridge	http://upload
CN Tower	Civil	43.6425	-79.41305556	Toronto, Canada.	http://en.wikipedia.org/wiki/CN_Tower	http://upload
Channel Tunnel	Civil	51.0125	1.5041	English Channel	http://en.wikipedia.org/wiki/Channel_Tunnel	http://upload
Delta Works (Zuiderzee Works)	Civil	51.65	3.72	Netherlands	http://en.wikipedia.org/wiki/Delta_Works	http://upload
Panama Canal	Civil	9.08	-79.68	Panama	http://en.wikipedia.org/wiki/Panama_Canal	http://upload
Empire State Building	Civil	40.74833333	-73.98555556	New York, United States	http://en.wikipedia.org/wiki/Empire_State_Building	http://upload
Itaipu Dam	Civil	-24.59194444	-54.58888889	Brazil	http://en.wikipedia.org/wiki/Itaipu_Dam	http://upload
Catacombs of Kom el Shoqafa	Medieval	31.178558	29.892954	Alexandria, Egypt	http://en.wikipedia.org/wiki/Catacombs_of_Kom_el_Shoqafa	http://upload
Great Wall of China	Medieval	40.67693	117.23193	China	http://en.wikipedia.org/wiki/Great_Wall_of_China	http://upload
Colosseum	Medieval	41.89	12.49222222	Rome, Italy	http://en.wikipedia.org/wiki/Colosseum	http://upload
Chichen Itza	New7Wonders Foundation	20.68277778	-88.56961111	Yucatán, Mexico	http://en.wikipedia.org/wiki/Chichen_Itza	http://upload
Leaning Tower of Pisa	Medieval	43.72305556	10.39638889	Pisa PI, Italy	http://en.wikipedia.org/wiki/Leaning_Tower_of_Pisa	http://upload
Porcelain Tower of Nanjing	Medieval	32.08027778	118.73	China	http://en.wikipedia.org/wiki/Porcelain_Tower_of_Nanjing	http://upload
Machu Picchu	New7Wonders Foundation	-12.83666667	-72.54555556	Cuzco Region, Peru	http://en.wikipedia.org/wiki/Machu_Picchu	http://upload
Christ the Redeemer (statue)	New7Wonders Foundation	-21.04805556	-43.21055556	Brazil	http://en.wikipedia.org/wiki/Christ_the_Redeemer_(statue)	http://upload
Colosseum	New7Wonders Foundation	41.89	12.49222222	Rome, Italy	http://en.wikipedia.org/wiki/Colosseum	http://upload
Great Pyramid of Giza	New7Wonders Foundation	29.97916667	31.13416667	Giza Necropolis, Egypt	http://en.wikipedia.org/wiki/Great_Pyramid_of_Giza	http://upload
Petra	New7Wonders Foundation	30.32861111	35.44194444	Ma'an, Jordan	http://en.wikipedia.org/wiki/Petra	http://upload
Taj Mahal	New7Wonders Foundation	27.175	78.04194444	Agra, Uttar Pradesh, India	http://en.wikipedia.org/wiki/Taj_Mahal	http://upload
Great Wall of China	New7Wonders Foundation	40.67666667	117.2316667	China	http://en.wikipedia.org/wiki/Great_Wall_of_China	http://upload
Pericutin	Seven Natural Wonders of the World	19.49277778	-102.2508333	Mexico	http://en.wikipedia.org/wiki/Par%C3%ADcutin	http://upload
Grand Canyon	Seven Natural Wonders of the World	36.1	-112.1	Arizona, United States	http://en.wikipedia.org/wiki/Grand_Canyon	http://upload
Aurora	Seven Natural Wonders of the World	80	0	Poles	http://en.wikipedia.org/wiki/Aurora	http://upload
Guanabara Bay	Seven Natural Wonders of the World	-21.20972222	-43.15555556	Brazil	http://en.wikipedia.org/wiki/Guanabara_Bay	http://upload
Victoria Falls	Seven Natural Wonders of the World	-16.07555556	25.85666667	Livingstone Zambia	http://en.wikipedia.org/wiki/Victoria_Falls	http://upload
Mount Everest	Seven Natural Wonders of the World	27.98805556	86.92527778	Nepal	http://en.wikipedia.org/wiki/Mount_Everest	http://upload

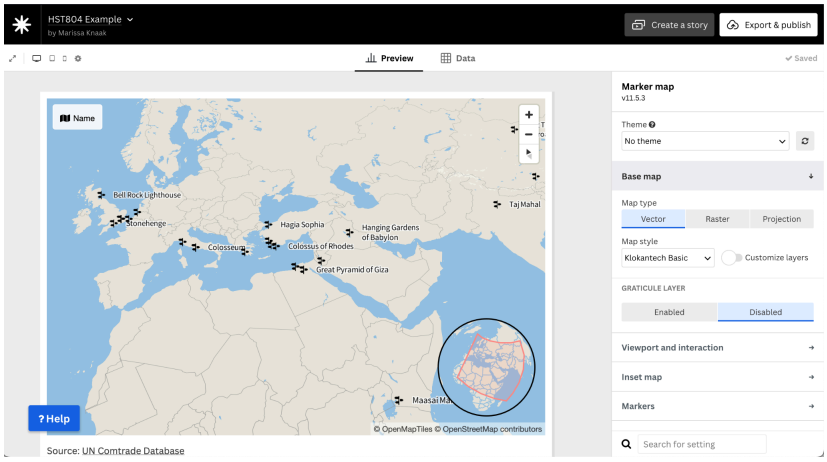
5. Select “upload data” in the blue button on the right. Once you select the file, it will show a popup confirming that you want to replace the data.



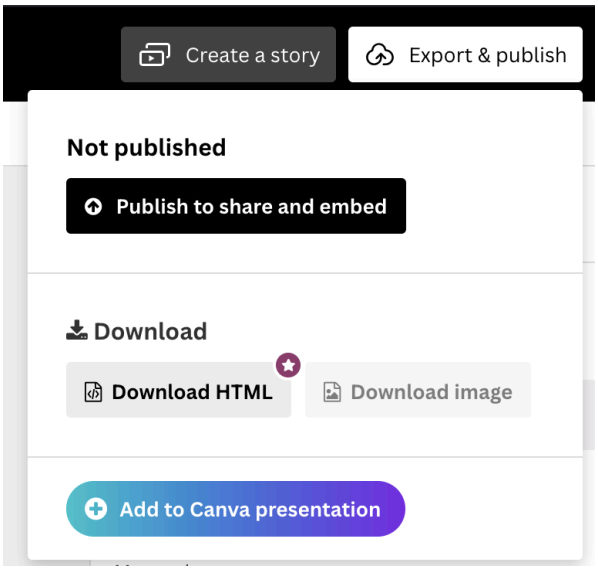
6. Select “import.” You will need to select the correct columns on the right to make sure the correct information is being read for the map.



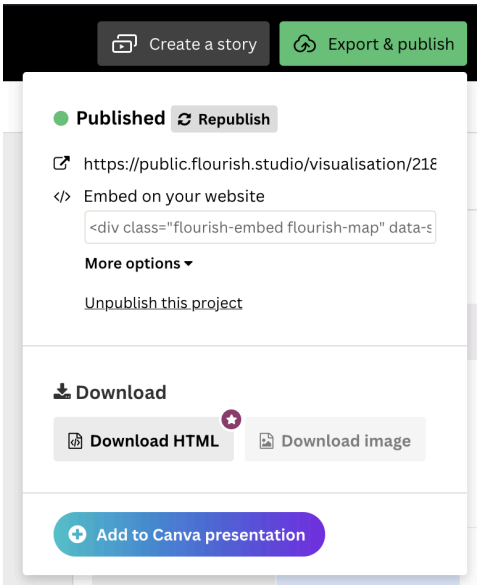
7. Under locations, you should have: Latitude - C; Longitude - D; Marker - I; Name - A; Description - B; Link -F; Category - H; Size - J; Info for popups - A,H,C,E
    a. I have updated the Kaggle dataset to include an icon file. If this does not work, visit https://icons8.com/icons and select an icon yourself. Download the file, right click in the icon column and upload the file. You will need to copy and paste the text into the whole column.
    b. You can play around with the icon size in column J. It is set to 10 now, but larger numbers will make the icon larger
8. If you navigate to the Preview tab, you can see your map as it exists



9. Along the right, you can change the look of your map. It is currently set to a Vector map (Klokantech Basic). You can add or remove the inset map, the map legend, and popups as well as other fields. Experiment with changing the map styles and see what happens when you change types or styles.
10. When you are finished with a map, you can export and publish it. This allows you to share and embed your visualization.



   a. You can provide updates on a map after you publish it
   b. You can also allow others to use your dataset



11. You have a Flourish map!

ADDITIONAL RESOURCES

- Flourish
    - Flourish help centers: https://helpcenter.flourish.studio/hc/en-us
    - Flourish YouTube: https://www.youtube.com/channel/UCWTf4OgEH_MiDvfmjPdkTxg
    - Flourish datasets: https://flourish.studio/resources/datasets/
- Kaggle free datasets: https://www.kaggle.com/
- Free icons: https://icons8.com/icons

GA Information
This documentation was prepared by: Marissa Knaak
Find out more via our website: leadr.msu.edu