



Teaching StoryMaps in Introductory Courses

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Human Health and the Environment in a Changing World

- Spatial analysis woven throughout:
 - 1 introductory exercise, 1, homework
- Undergraduates ~200 students

Applied GIS for Public Health

- Full course in Online MPH program
- Graduate Students (mostly mid-career professionals) ~50 students

For Introductory Classes: Start with Google Sheet – adjust the field names

The screenshot shows a Google Sheet interface. At the top, the title is 'PH150B2020'. Below the title is a menu bar with options: File, Edit, View, Insert, Format, Data, Tools, Add-ons, Help. To the right of the menu bar, there is a status bar that says 'Last edit was 3 minutes ago' and a green 'Share' button. Below the menu bar is a toolbar with various icons for undo, redo, print, copy, paste, zoom, and text formatting (bold, italic, underline, text color, background color, fill color, border, text wrap, text alignment, text direction). Below the toolbar is a formula bar with 'fx' and 'Name'. The main area of the sheet is a table with the following data:

	A	B	C	D	
1	Name	Description of Picture AND (location) <-where you are living when you take the class.	latitude	longitude	Picture
2	Charlotte Smith	City of Detroit Zoo (Detroit, Michigan)	42.42357	-83.28526	https://upload.wikimedia.org/wikipedia/comm
3	Courtney Chau	City Hall (Temecula, CA)	33.493641	-117.148361	https://upload.wikimedia.org/wikipedia/commons/3/
4	Michelle Yiu	Sutro Tower (San Francisco, CA)	34.23901	-117.233398	https://upload.wikimedia.org/wikipedia/commons/7/
5	Shany Cardenas	Moonlight Beach (Encintas, CA)	33.048599	-117.29641	https://upload.wikimedia.org/wikipedia/commons/th
6	Emily Gu	Lynbrook High School (San Jose, CA)	37.29805	-122.00721	https://upload.wikimedia.org/wikipedia/commons/th
7	Anmol Seth	Santa Clara University (Santa Clara, CA)	37.350116	-121.961239	https://upload.wikimedia.org/wikipedia/commons/th

At the bottom of the sheet, there is a tab labeled 'Sheet1' and an 'Explore' button.

For Introductory Classes: Adjust field names back, to match template

	A	B	C	D	E	F	G	H	I	J	K	L
1	Name	TAB_NAME	SHORT_DESC		latitude	longitude	PIC_URL	THUMB_URL				
2	Colette Cosyn	Gallery	Crystal Cove State Park		33.58136	-117.84932	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
3	Annie Yu	Gallery	Banner Islands Ballpark		48.70621	-116.30756	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
4	Chloe Chu	Gallery	Mount Diablo State Par		36.087898	-115.232582	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
5	Amy Tran	Gallery	Trader Joes (Berkeley, C		37.86175	-122.27403	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
6	Elize Portnoy	Gallery	Disney Concert Hall DTI		34.14803	-118.62052	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
7	Lily Cho	Gallery	Jangja lake park (Guri, S		37.584826	127.139706	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
8	Qianqian Lin	Gallery	Berkeley Marina (Berke		37.866428	-122.305099	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
9	Trinity Durborow	Gallery	Channel Islands Nation		34.01389	-119.74577	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
10	Mohammad Ayma	Gallery	Dougherty Valley High S		37.76627	-121.91831	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
11	Ryan Poe	Gallery	California Memorial Sta		37.87217	-122.25115	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
12	Manisha Sahoo	Gallery	Peet's Cafe (Berkeley, C		37.86721	-122.256554	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				
13	Felicia Liu	Gallery	Copley Square (Boston,		42.360081	-71.058884	https://uplc	https://upload.wikimedia.org/wikipedia/commons,				

For Introductory Classes: Before class begins – start thinking spatially: StoryMap Shortlist

PH150B 2020 We live here!

Edit A Story Map



Charlotte Smith



Courtney Chau



Michelle Yiu



Shany Cardenas



Emily Gu



Anmol Seth



Brittany Zhang



Navya Peddireddy



William Sugijoto



Haarini Sridhar



Julie Thao



Olivia Miller



Esri, HERE, FAO, NOAA



Colette Cosyn



Top of the World (Laguna Beach, CA)



PART 2

Go to https://docs.google.com/spreadsheets/d/1IUB_epgkVJhdJt9AgL-o82nVqAb6QEbLohKQ_I9jdH0/edit?usp=sharing

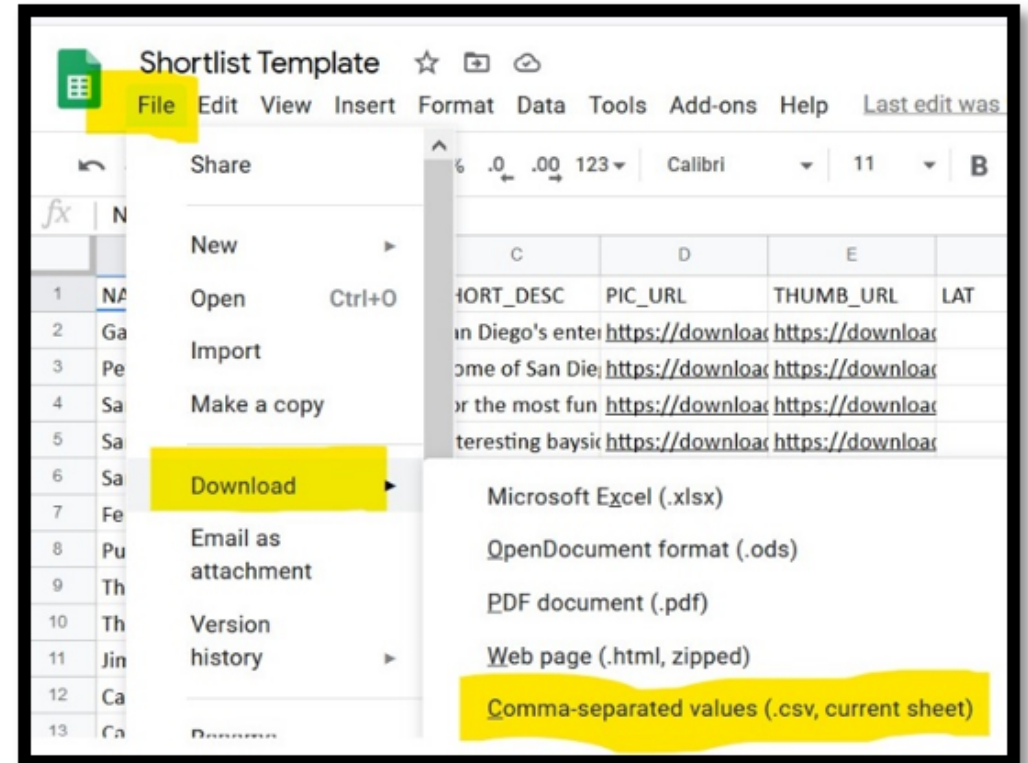
Download the spreadsheet as a .csv file (SEE FIGURE ON THE RIGHT). Delete the cells but DO NOT CHANGE THE COLUMN NAMES. After you have downloaded the sheet to a .csv fill in at least 6 rows maintaining a certain theme such as “Places I’ve lived”, “Places I’ve been”, “My top choices for Graduate School”, “My Favorite Restaurants”, “Best Soccer Stadiums in the World”. Anything with a location is fine!

Notes:

1) The images for PIC_URL and THUMB_URL can be the same of different, but you must have a publicly available (open source) image in each cell. I suggest Wikimedia

https://commons.wikimedia.org/wiki/Main_Page

(IMPORTANT: right click and chose “copy location image” to insert your image into your spreadsheet).



Create a New Web App

Configurable Apps | Web AppBuilder | ArcGIS Dashboards

What do you want to do? Select a configurable app. ?

Search

Show All

Build a Story Map

Collect/Edit Data

Compare Maps/Layers

Explore/Summarize Data

Interpret Imagery

Map Social Media

Provide Local Information

Route/Get Directions

Showcase a Map

Combine maps with narrative text, images, and multimedia content to tell your story. Looking for the new ArcGIS StoryMaps? [Click Here](#)

Story Map Basic

Story Map Cascade

Story Map Journal

Story Map Series


Story Map Shortlist

Story Map Swipe and Spyglass

12: Select: Create Web App

11. Select:
 - Build a Story map
- Select:
 - Story Map Shortlist

San Diego Shortlist



Story Map Shortlist

Present a set of places of interest organized into tabs making it fun and easy for people to explore what's available in an area.

CREATE WEB APP

PREVIEW | DOWNLOAD

CLOSE

ShortlistBuilder SETTINGS SHARE VIEW STORY HELP Story is private SAVE

Favorite Places to Visit in San Francisco

Just a few places in the city that are special to me.

San_Francisco EDIT TAB

A Story Map esri

T Pumps	San Tung	Chrissy Field Picnic Area
Plov	Ferry Building	Twin Peaks
Ocean Beach	Presidio	Japantown

Within a few hours, students are motivated and ready to learn GIS and create StoryMaps

UK Study Abroad Adventures

Some of my favorite places I visited while studying abroad at the University of Sussex during the summer of 2019.

study_abroad EDIT TAB

A Story Map esri

University of Sussex	Brighton, England	Buckingham Palace
Borough market	Tower Bridge in London	Sunday roast at Hawksmoor
Trafalgar Square in London	London Eye	Harrods

Esri, HERE, Garmin, FAO, USGS, NGA

	A	B	C	D	E	F	G
1	NAME	TAB_NAME	SHORT_DEPIC_URL	THUMB_ULAT	LONG		
2	Haggin Museum	Stockton	Art and lo	https://uploa	https://up	37.96028	-121.314
3	Stockton Arena	Stockton	Indoor ba	https://uploa	https://up	37.95608	-121.292

Correct

	A	B	C	D	E	F	G
1	PH150B Homework #2						
2	NAME	TAB_NAME	SHORT_DEPIC_URL	THUMB_ULAT	LONG		
3	Haggin Museum	Stockton	Art and lo	https://uploa	https://up	37.96028	-121.314

Insert Title Line

	A	B	C	D	E	F	G
1	PLACE	TAB_NAME	SHORT_DEPIC_URL	THUMB_ULAT	LONG		
2	Haggin Museum	Stockton	Art and lo	https://uploa	https://up	37.96028	-121.314
3	Stockton Arena	Stockton	Indoor ba	https://uploa	https://up	37.95608	-121.292

Change Field Name

	A	B	C	D	E	F	G
1	NAME	TAB_NAME	SHORT_DEPIC_URL	THUMB_ULAT	LONG		
2	Haggin Museum	Stockton	Art and lo	https://uploa	https://up	37.96028	-121.314
3	Stockton Arena	Stockton	Indoor ba	https://uploa	https://up	37.95608	-121.292

Mix String & Integers

	A	B	C	D	E	F	G
1	NAME_PLACE	NAME_TAB	SHORT_DEPIC_URL	THUMB_ULAT	LONG		
2	Haggin Museum	Stockton	Art and lo	https://uploa	https://up	37.96028	-121.314
3	Stockton Arena	Stockton	Indoor ba	https://uploa	https://up	37.95608	-121.292
4	Micke Grove Zoo	Stockton	Petting zo	https://uploa	https://up	38.0445	-121.269
5	Stockton Field Aviat	Stockton	Aircraft m	https://www.	https://s3	37.89133	-121.242
6	University of the Pa	Stockton	Private Un	https://uploa	https://up	37.97995	-121.313
7	San Joaquin Delta C	Stockton	Local com	https://www.	https://up	37.99541	-121.319

Similar Field Names



PHW277: Applied GIS for Public Health Practice

Course Syllabus (Spring II - 2020)

Table of Contents

Course Description	2
 Course Goals & Competencies	2
 Course Format	2
Course Schedule	4
 Course Grading	8



Preparing for the Next Pandemic



1x

Influenza is an ongoing threat each year,
but are we prepared for the impact of a
novel influenza strain?

Anh-Phuong Pham | PHW 272B - Dr. Charlotte Smith |

March 30, 2020

What students need:



Data Sources:

- University Sources: Library Guides / Repositories
- Web Sources: Living Atlas / Wikipedia

Data Cleaning Instruction:

- YouTube Spreadsheet & Data cleaning Skills / [YouTube - Leila Gharani](#)
- 2 Hour Data cleaning Bootcamp: [R](#), [Python/Jupyter Notebook](#), [Excel](#)



Sources for Spatial Data

<https://guides.lib.berkeley.edu/publichealth/phw272>

Living atlas of the world (ESRI)

American Community Survey (US Census)

World Development Indicators (World Bank)

Global Health Data Exchange, 500 Cities, (IHME, CDC)

World Clim, Environ Atlas, EJScreen (WC.org, USEPA)

Data Planet (SAGE – behind paywall)

Community Commons (CC.org – open source)

Public Health Librarian



Michael Sholinbeck

https://geodata.tufts.edu/

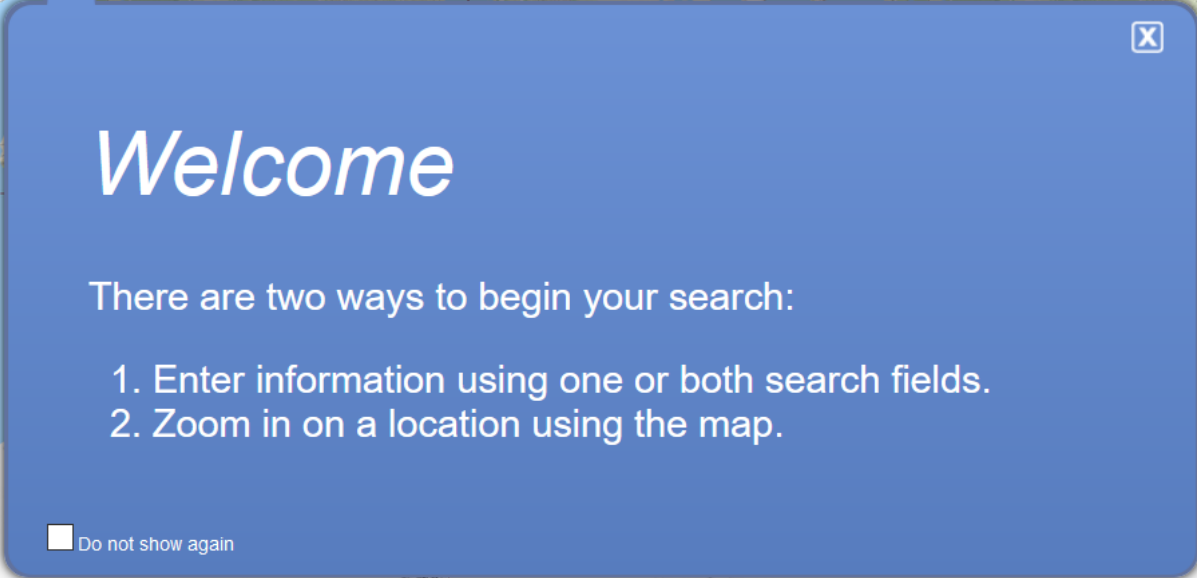
GeoData at Tufts

[Reset](#) | [Help](#) | [About](#) | [Login](#)

Where:

What:

[Advanced Search](#)

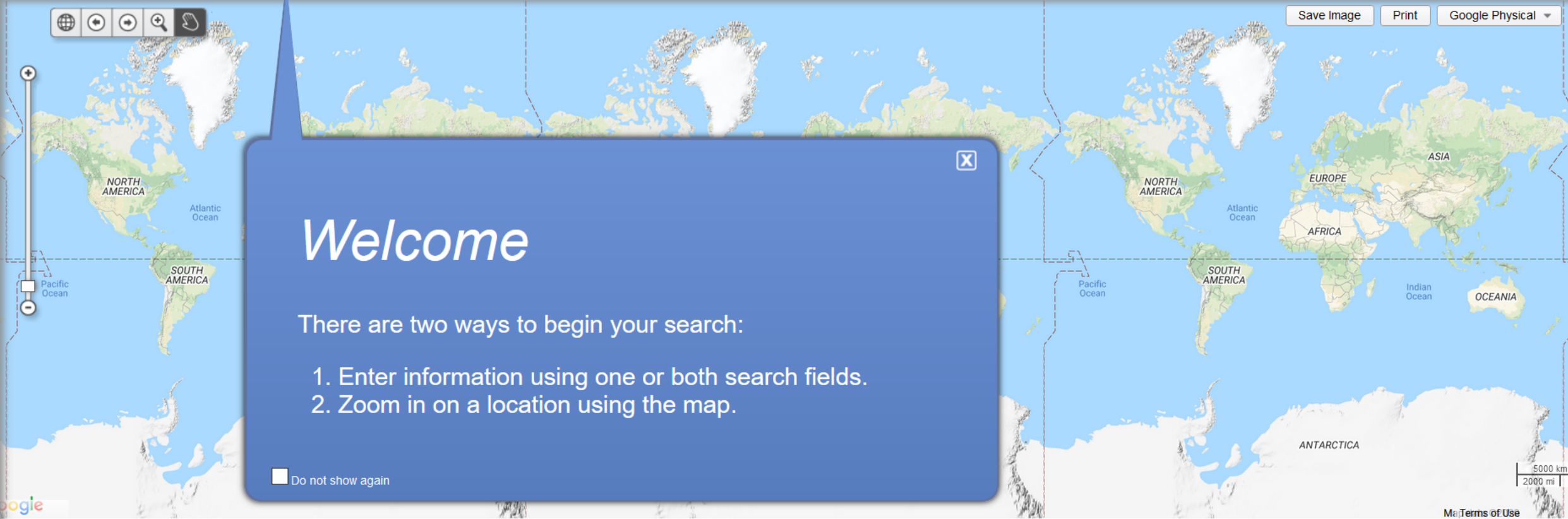


Welcome

There are two ways to begin your search:

1. Enter information using one or both search fields.
2. Zoom in on a location using the map.

Do not show again



https://geodata.tufts.edu/

GeoData at Tufts

[Reset](#) | [Help](#) | [About](#) | [Login](#)

Where: What: [Search](#) [Advanced Search](#)

13513 Results Cart (0)

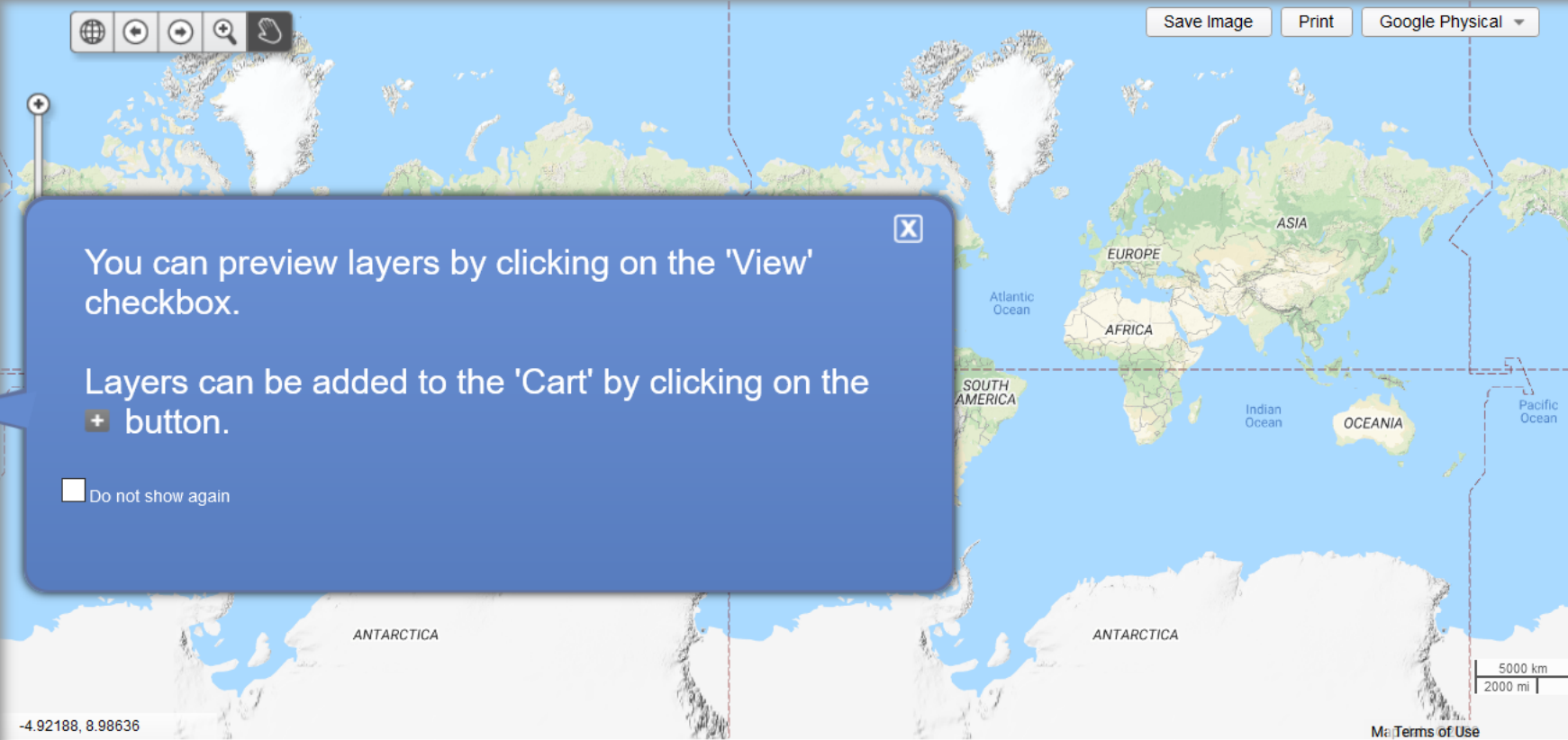
Sort Results Columns Clear Views

Type	Name	Originator	Rep	Meta	View
<input checked="" type="checkbox"/>	UTM Zones World 2010	Michael Bauer	T	i	Login
<input checked="" type="checkbox"/>	Latitude and Longitude Grid World 1	Michael Bauer	T	i	Login
<input checked="" type="checkbox"/>	Named Latitude and Longitude Worl	Michael Bauer	T	i	Login
<input checked="" type="checkbox"/>	Map Background World 1996	Michael Bauer	T	i	Login
<input checked="" type="checkbox"/>	Time Zones World 1991-2001	Michael Bauer	T	i	Login
<input checked="" type="checkbox"/>	Vector Shoreline Area World 1995	United States.	T	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DCW Data Quality, Lines	National Image	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DCW Data Quality Polygons	National Image	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DCW Hypsography, Lines	National Image	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DCW Hypsography, Polygons	National Image	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Global GIS : Bailey equal-area grid	Environmental	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Global GIS : Global 5-degree latitud	American Geok	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	World Map, 1654 (Raster Image)	Harvard Map C	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	World Bathymetric Chart of the Oce	Harvard Map C	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Testing parity 2	United States.	T	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Testing parity 1	United States.	T	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Global GIS : geologic provinces of t	American Geok	H	i	<input type="checkbox"/>
<input checked="" type="checkbox"/>	World Map Showing Geomagnetic M	Harvard Map C	H	i	<input type="checkbox"/>

You can preview layers by clicking on the 'View' checkbox.


Layers can be added to the 'Cart' by clicking on the button.

Do not show again



Map Terms of Use

https://en.wikipedia.org/wiki/List_of_GIS_data_sources



WIKIPEDIA
The Free Encyclopedia

Not logged in [Talk](#) [Contributor](#)

Article [Talk](#) [Read](#) [Edit](#) [View history](#)

List of GIS data sources

From Wikipedia, the free encyclopedia

This is a **list of GIS data sources** (including some [geoportals](#)) that provide information sets that can be used in [geographic information systems](#) (GIS) and [spatial data](#) of [geospatial analysis](#) and [cartographic](#) mapping. This list categorizes the sources of interest.

Contents [\[hide\]](#)

- 1 [Global](#)
- 2 [Polar region](#)
- 3 [Europe](#)
 - 3.1 [Europe by country](#)
 - 3.1.1 [Greece](#)
 - 3.1.2 [Lithuania](#)
- 4 [Brazil](#)
- 5 [Canada](#)
 - 5.1 [Canada Regional](#)
- 6 [India](#)
- 7 [United States](#)
 - 7.1 [United States Regional](#)
 - 7.2 [Alabama](#)
 - 7.3 [Alaska](#)
 - 7.4 [Connecticut](#)

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<https://livingatlas.arcgis.com/en/home/>



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ArcGIS Living Atlas of the World is the foremost collection of geographic information from around the globe. It includes maps, apps, and data layers to support your work.

Search Living Atlas for maps, apps, and more



Cartography: David Medeiros, Stanford

<https://library.stanford.edu/research/stanford-geospatial-center>



GIS Cartography

[Link List](#)

[Data Resources](#)

[Workshops](#) ▼

[Downloads](#)

[Stanford Geospatial Center](#)

Reading

General Texts

[Making Maps: A Visual Guide to](#)

[Cartography: An Introduction, 2](#)

[Cartography Guide](#) - Axis Maps

Advanced Texts

[Cartography](#) - Ken Fields

[Cartographic Relief Presentatio](#)

[Envisioning Information](#) - Edward

Essays & Articles

[Map Making Advice for Student](#)

A banner for "map design in GIS" featuring a colorful, abstract map design with yellow, orange, and purple wavy lines. The text "map design in GIS" is in large white font, with "bit.ly/sgccart" below it. A small portrait of David Medeiros is in the bottom right corner.

map design in GIS
bit.ly/sgccart

David Medeiros
GIS Reference and Instruction Specialist, Stanford Geospatial Center
davidmed@stanford.edu



Assessment: Rubric

Criteria	Points
The theme of the StoryMap is clear (as represented by the title)	2
The theme is consistent throughout the StoryMap	2
The intended audience can be inferred easily (it's clear whether the StoryMap is for the general public or a specific audience or stakeholder with subject area knowledge)	2
The narratives are clear and concise	8
Data sources are appropriately attributed, images have permissions if needed or are creative commons open source	6
The StoryMap includes an original density measure such as kernel density or heatmap, or a measure of clustering or hotspot analysis	20
The StoryMap includes an original map with buffer or distance measure related to at least one feature	20
The Story Map includes a map with a raster image or 3D image	20
Overall effectiveness of the map – did it achieve an intended purpose / good use of images/videos and/or graphics?	20
	100

Assessment: University of Minnesota

University of Minnesota

Home

Gallery

Instructional Resources

Student Resources

Teach with StoryMaps

Story Map Curriculum Portal

Bring Spatial Thinking to your Classroom

Discover assignment prompts, guidelines for instructors or students, exemplary student work, and other materials to leverage StoryMaps and ArcGIS as a teaching tool.

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Discover assignment prompts, guidelines for instructors or students, exemplary student work, and other materials to leverage StoryMaps and ArcGIS as a teaching tool.

Rubric Templates

These rubric templates outline some of the grading criteria to consider when designing your assignment.

Assignment Type			
Story Map	Basic Rubric	Detailed Rubric	Group Work Rubric

Thank you for your attention (in yet another Zoom meeting)

charlottesmith@berkeley.edu