

Part 2: Finding data and mapping in ArcGIS Online

What is ArcGIS Online (AGOL)?

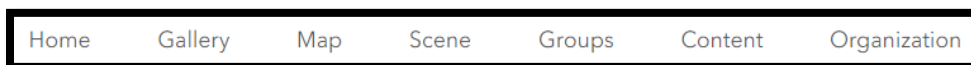
[ArcGIS Online](#) is a cloud-based geographic information system (GIS). With ArcGIS Online, users can create, use, and share geospatial content on the web; meaning, this “software as a service” (SaaS) can run on any device with an internet connection.

Some of the key functions of ArcGIS Online include:

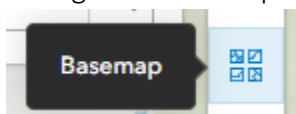
- Creating interactive web maps
- Sharing content via maps and web apps
- Facilitating collaboration across organizations and groups
- Running geospatial analyses and providing context to data

2.1 The ArcGIS Online (AGOL) interface and web scenes

1. To begin, open your browser and navigate to <https://www.arcgis.com/index.html>.
2. **Sign in** (upper right) with the GUEST login credentials provided to you.
3. Notice the different sections of AGOL along the top of the page:



- a. Today, we will use **Scene Viewer** for viewing and interacting with 3D scenes.
4. BUT FIRST, let's explore already created Scenes. Click this link to navigate to the [Esri 3D Scene Gallery](#). (At this point, you will have two tabs open in your browser).
 5. Take some time to explore Web Scenes that may be of interest to you.
 - a. Notice that there are ~416 to choose from!
 - b. Select one to get to its details page, then click **Open in Scene Viewer** in the upper right corner.
 - c. Explore using your mouse. Note that the mouse controls are different in AGOL! Figure it out. 😊
 - d. Where did you all go? What interesting places did you discover?
 6. NOW you'll create your own Scene in ArcGIS Online.
 7. Go back to ArcGIS Online (arcgis.com) and click on the **Scene** tab. Likely, a **Scene Viewer** pop-up will appear. Close out of the pop-up.
 8. In the search bar at the top right, search for a location of your choice. Then all together, we will look at Fort Collins, CO.
 9. In ArcGIS Online, there are Basemap layers and “operational” layers. You can think of the Basemap as the foundational or ground layer in our Scene.
 10. Change the Basemap to “Imagery” by clicking on the Basemap icon on the right.



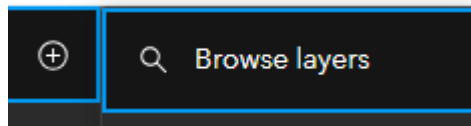
Any similarity here to your Google Earth exploration?

11. Toggle through the different options in Basemaps. We will use “**Light Gray Canvas**” for the rest of our activity.

2.2 Exploring data in ArcGIS Online

Scenario: You and your team want to use ArcGIS Online Scene Viewer to explore data for establishing a new retail store in Fort Collins, CO! You decide to use Urban Outfitters as an example store. You also want to make a 3D map/scene in AGOL Scene viewer to visualize the data and share with others! Ideally, the store will be easily accessible via public transportation and/or bike.

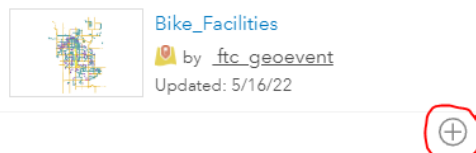
1. First, let's explore geospatial data that is available via ArcGIS Online!
2. On the left hand of the screen, you will see a series of icons stacked in a vertical line.
3. To browse for layers to add to the map, press the + and several options should appear.
4. We will browse AGOL content by selecting "Browse layers."



5. Instead of "My Content", we want to browse for layers in either ArcGIS Online or the Living Atlas. You can read more about the [ArcGIS Living Atlas of the World](#) following this hyperlink. Select **ArcGIS Online** for now.

Bike routes

6. We are going to add Fort Collins bicycling information to our map.
 - a. Type "fort collins bikes" into the search bar and look for the data layer created by **ftc_goevent**.



7. Click on the plus button to add the "Bike Facilities" layer to the scene then click Done (at the bottom).
8. Click the 3 vertical dots next to the layer name. Then, select Layer Style.
9. Notice that we have the option to use either 2D or 3D symbols to visualize our data (this is because we are working in a *Scene*).
10. Choose 2D Types and click Options
 - a. Here you can change the color and type of symbols.
 - b. We refer to this as *Symbology* in GIS.
 - c. To change all symbols, you can click "Select All" next to Attribute Values.
11. This is the basics of adding data to a map and symbolizing it!

Follow along, or just watch the demo for this next part

Adding demographic data

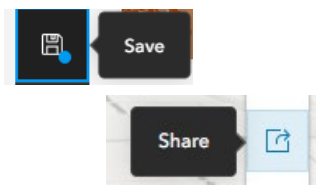
16. Add data from the Living Atlas.
 - a. Type "retail" in the search bar and select "2022 USA Retail Goods Spending."
 - b. Type "median income" and select "2022 USA Median Household Income."

Once these data are added to the Scene, do you see any patterns?

3D Buildings/Footprints

12. Now, this is mostly for visual purposes, but let's add 3D buildings to our map.
13. Browse via the Living Atlas.
14. Type "Buildings" into the search bar.
15. Select "**OpenStreetMap 3D Buildings**" to the scene.
16. In spatial analysis, we could select for buildings that only pertain to *retail stores*. For today, we will use all buildings for our scene.
17. Spend some time adjusting the Tilt of View for your *Scene*, making any Symbology changes you see fit, etc. See demo for tips and tricks!

18. Then SAVE your Scene and Share it!



- a. You can Copy the link to send the Scene to yourself via email.
19. Second, use the Snipping Tool in Windows to take a screenshot to print your *Scene*. (We will demonstrate this).

Congratulations on completing your Geospatial Adventure for Retail! Happy Mapping!

Links to data from discussion slides for reference

[Predominant Generations in the US](#)

[2022 USA Median Household Income](#)

[2022 USA Retail Goods Spending](#)

[Major Retail in Colorado](#)

[SafeGraph Places for ArcGIS](#)

[Tapestry segmentation](#)

[GDP by County in USA](#)

[Does retail or wholesale trade contribute more to GDP?](#)

[County Business Patterns \(CBP\)](#)