

ArcGIS Online Part 2 Workshop

Spring 2015 – Spatial Analysis Lab

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1. General Overview:

The goal will be to make a Story Map application out of the Springfield food access webmap. The story map will be divided into multiple sections (think of these like chapters) in which the various layers and steps of the store siting process can be described, for example:

1. The “Home” Section – this is like an introduction page – here you could provide a bit about Springfield and food access and the objective of store siting
2. Section 1: Access issues – spatial distribution of low food access, low vehicle access, and low income
3. Section 2: Proposing a new store location – relationship between vacant lots and bus lines/stops within the Mason Square area

The idea behind these Story Map applications is that they allow the maps to be shared as a complete package, in which the viewer uses the narrative text and images to lead them through the interactive map sequence. Therefore allowing the narrative to be supported by the mapped data, while also making the data accessible and contextualized!

2. Accessing ArcGIS.com

Start by accessing ArcGIS Online:

1. In a web browser (preferably Google Chrome) go to www.arcgis.com

2. Click **Sign In**



3. Use the following to sign-in:

** Please contact at SAL@Smith.edu for username and password

4. In the ribbon at the top of the page click **My Content** to access previously made webmaps and layers

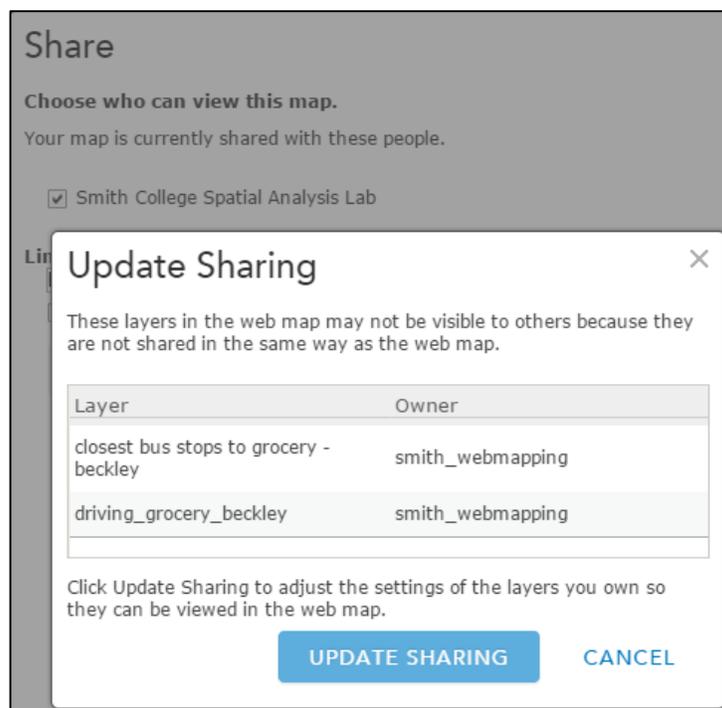


5. Locate your webmap and click the name to open
6. This will take you to the “details page”, click the image to enter the webmap
7. Before we create the story map take a moment to look at the current state of your webmap – this will be the default state of it any time you insert it into the application (this will make sense later), right now consider setting:
 - a. Default Content: Make only one or two layers visible (checked on) in your webmap -- these function as your base layers throughout the story map – I’ll use grocery stores and the neighborhoods
 - b. Default Location: Choose the extent and location of the map: zoom and pan so that all of Springfield is in the frame
 - c. Default Basemap: Choose the basemap you want to use throughout the Story Map -- I’d recommend using topographic for the story map because of the nice street and landmark data it provides in an uncluttered fashion
8. Click **Save** – now your webmap’s default content, location, and basemap are set

3. Share Webmap to Create Story Map

The webmap is sort of like the “data view” in ArcMap – it’s where we work with the data, perform analysis, and change the appearance of layers – to create a “Story Map” we’ll need to Share the webmap, which will take us into a space comparable to ArcMap’s “layout view”:

1. Click **Share**
2. In the new window check the box next to **Smith College Spatial Analysis Lab** – this is sharing your webmap with the Smith ArcGIS Online organization
3. A new window will ask you to update the sharing for certain layers, go ahead and click **Update Sharing** – the program requests this because these layers have been created by you and live separately from the webmap, so they also need the share settings to-be-updated



4. Once that is resolved, click **Make a Web Application** – this will take you to the Story Map Application options!
5. There’s a bunch of them so click through and take a look, hover your mouse over each to read a description
 - a. On page three is the **Story Map Journal**, which will use, click **Publish** and **Publish**
6. In the next window give the application a name and tag – it’ll default to the name of your webmap, which is fine, click **Save & Publish**



4. The Map Journal Builder

We have arrived. This is the space in which you will develop your story map using the layers from your webmap:

1. First select between the Side Panel and Floating Panel options – you can change this later on, so it's not too big of a commitment
2. Please not the inspiring quote:

“The shortest distance between a human being and the truth is a story.”
--Anthony de Mello

3. Provide a name for the Map Journal – you may feel like you've already named the application, but that was the technical name, this name is displayed in the application and should be more true to the topic – Siting Springfield Grocery Store – or something along those lines
4. The Builder is intended to help guide you, so my instruction will become more minimal here – however I will point out tips the program does not provide
 - a. First tip: Click **Take a Tour** and briefly read about how various settings can be changed

5. Add Home Section:

Consider using this section to introduce these concepts:

- Springfield and the Mason Square neighborhoods
- Food access issues – here's some text from the USDA about “food deserts” and how they create their food access data:
<http://apps.ams.usda.gov/fooddeserts/fooddeserts.aspx>
You can also google “USDA food desert” and it's the first link

Consider using this section to introduce these layers:

- The neighborhoods layer
- The grocery store layer

Map Journal Builder SETTINGS Pending changes

A story map

Siting A Grocery Store in Springfield MA

This project explores issues of access and inequity regarding food resources in Springfield, Massachusetts.

The USDA defines a "food desert" as:

Urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food. Instead of supermarkets and grocery stores, these communities may have no food access or are served only by fast food restaurants and convenience stores that offer few healthy, affordable food options. The lack of access contributes to a poor diet and can lead to higher levels of obesity and other diet-related diseases, such as diabetes and heart disease.

They use an overlay of low income and low [food] access to determine which of the US census tracts are qualified as "food deserts", we will look at some of those layers in this project. Additionally we will visualize the relationship between grocery store locations and neighborhoods, as well as low vehicle access (something the USDA does not consider in its calculation of "food desert")

ADD SECTION **ORGANIZE**

Here's my example. I inserted a picture of the USDA's Low Income/Low Access map via a URL (which is the only option for inserting pictures/videos)

6. Add 1st Section:

1. Click **Add Section** to create the next section



Consider using this section to introduce these concepts and layers:

- Low Access
- Low Vehicle Access
- Low Income

2. In “Add Section” **Step 1** you can set the “Main Stage” Content – meaning the webmap layers visible when Section 1 is arrived at by the viewer
 - a. Do this by clicking **Custom configuration** next to **Content** and then selecting the layers you want to make visible
 - i. I’ll set mine as the neighborhoods (to provide context), the grocery stores, and the One Mile from Supermarket layer
 - ii. You could check **Legend** to include a legend on the map. Because the symbols for the access layers are a binary – yes/no – I will imbed the legend in my text instead of checking the box

ADD SECTION

STEP 1: Main Stage Content

Access in Springfield

CONTENT: Map Image Video Web page

Web map: Beckley Map Current web map

Location: Web map default **Custom configuration**

Content: Web map default **Custom configuration**

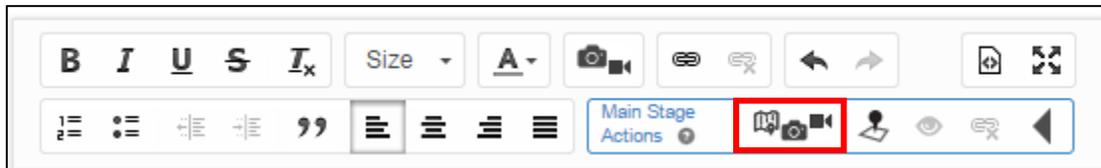
Popup: Web map default Custom configuration

Extras: Overview Map Legend

NEXT CANCEL

3. Click **Next** to get to the panel content where text and images can be added
4. Include text to introduce the three access layers

5. One of the coolest features of this application is that you can include links within the text to content on the map
 - a. To do this, write something to instruct viewers to click, like “click here to view this layer”, highlight this text, and click the **Content** icons button in **Main Stage Actions** to set which layers are visible once the link is clicked
 - b. Use this to provide a link to turn on the Low Income and Low Vehicle Access



6. Below is my example for section 1, take a moment to note a few capabilities in use here:
 - a. [Link to external website](#): a great way to provide additional information
 - b. [Using text color to explain map content symbols](#) – an embedded legend of sorts
 - c. [Embedded content links](#) – show additional layers of data when clicked
 - i. This could also be used for changing the location of the map – like to zoom to a particular area – for example the selected vacant lot later on...

Access in Springfield

Currently visible on the map is the [USDA's Low Access layer](#). This data shows which census tracts (roughly following neighborhood divisions) have a large percent of residents living over a mile from a supermarket.

- [Red tracts](#) are over a mile from a supermarket and therefore "low access"

Low Income is the other half of the USDA's "food desert" equation. [Click here to view](#) low income tracts on the map.

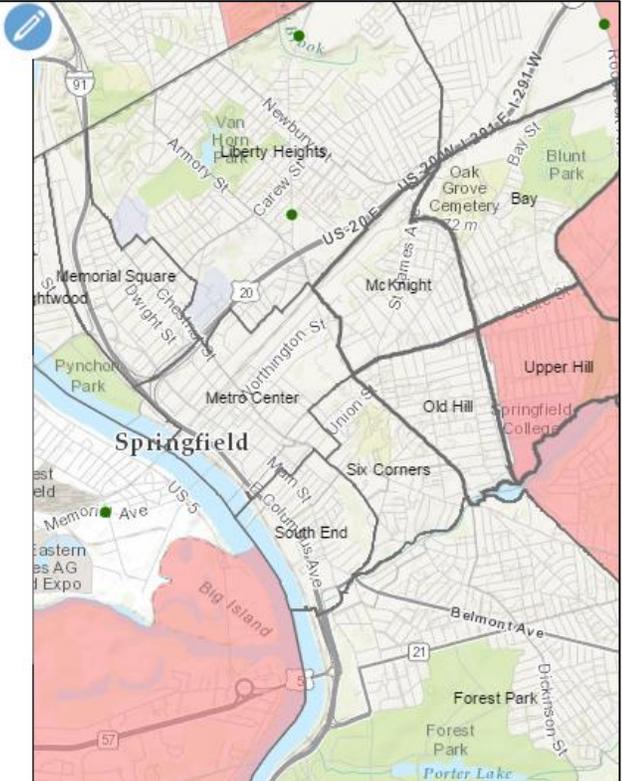
- [Low income tracts](#) are marked on the map with stripes. These areas have over 20% of residents living below the poverty line.

Low Vehicle access is not calculated into the equation of "food desert", but remains critical to food access. [Click here](#) to view low vehicle access tracts on the map.

- [Low Vehicle access tracts](#) are marked with a dotted pattern. These areas meet a certain criteria for the percent of households living without a vehicle, [click here](#) for more information

[Click here](#) to view Low Access, Low Income, and Low Vehicle Access overlaid

 ADD SECTION
 ORGANIZE



7. Add 2nd Section: Other Ideas and Tips

In this section I tried to use the text/links to lead the viewer through my process of choosing a new supermarket location, this included things like:

- Looking at the path my sample household would take to the store – via car it's a reasonable distance, but on foot it would be over 2 miles, and by bus it would require either multiple routes or a decent amount of walking – I tried to explain this in my text in a way that would allow the viewer to consider this issue on an individual level instead of only from distance through data
 - This can be helpful if your viewer is going to be unfamiliar with the content or your project or the location of the project. If the viewer doesn't know Springfield it may be hard for her to find meaning in this, so to draw out an individual example can help humanize the data and illustrate the complexities of the issue
- I made sure to choose a vacant lot that is near a convergence of bus routes to make it as widely accessible as possible to low vehicle access households
- By using the text in conjunction with well-placed content/location links you can present your story and support your conclusions with the maps, which is what makes this tool really powerful, so take advantage!

Click here to see view the access layers in relation to this sample household:

[Low Access](#)

[Low Income](#)

[Low Vehicle Access](#)

[All Three Together](#)

Although the nearest store for this household is over 2 miles away, the tract it is located in is not qualified as a low access area...

This tract is both a **low income** and **low vehicle access** area. [Click here to view the local bus routes and stops](#) to consider how this household might use public transit to travel to the nearest store. Each route has a unique color to show that multiple routes would be needed to get from this house to this grocery store.

So where to place the new grocery store? [Here are the vacant lots in Springfield as of March 2015:](#)

Light blue represents medium sized lots (25,000-50,000sqft)

Dark blue represents large sized lots (50,000+ sqft)

The nearest vacant lot that is large enough to house a supermarket and is not currently a public park is located [here](#). So this is where the proposed new store would be located.

This location is within .3 miles of [bus stops on multiple routes](#) -- helping to extend food access to those with low vehicle access

[This location](#) would expand food access within the Mason Square neighborhoods, while being readily accessible by the bus lines.