Storytelling with Esri Story Maps

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Education GIS

esri

Ways of Communicating with ArcGIS

❖ **Presentation Mode in ArcGIS Online**

❖ **Embedding maps in web pages.**

❖ **Multimedia via Map Notes.**

❖ **Web Mapping Applications, including Story Maps, multi-panel maps, and via other methods.**

Story Maps

- ❖ **Maps have been used to tell stories for thousands of years.**

- ❖ **Story maps are powerful and compelling.**

- ❖ **Story maps are relatively easy to create.**

- ❖ **Story maps are accessible, multi-platform, and serve many purposes in education and beyond.**

Story Maps

- Story maps provide good ways to teach content.

- Story maps provide good ways to teach GIS, data, computer, multimedia, and other technical skills.

- Story maps provide good ways to teach critical thinking, organizational skills, and other skills.

- Story maps provide good ways to assess student work.

- Story maps provide good ways for students to build skills in communications, and even art!

- Begin: http://storymaps.arcgis.com

Maps vs. Applications: Maps

- **A web map is stored in the ArcGIS Online cloud and contains the full interface and set of tools with which the map users can interact.**

- **At right is a web map for a bicycling route I took from New York City to New Jersey.**
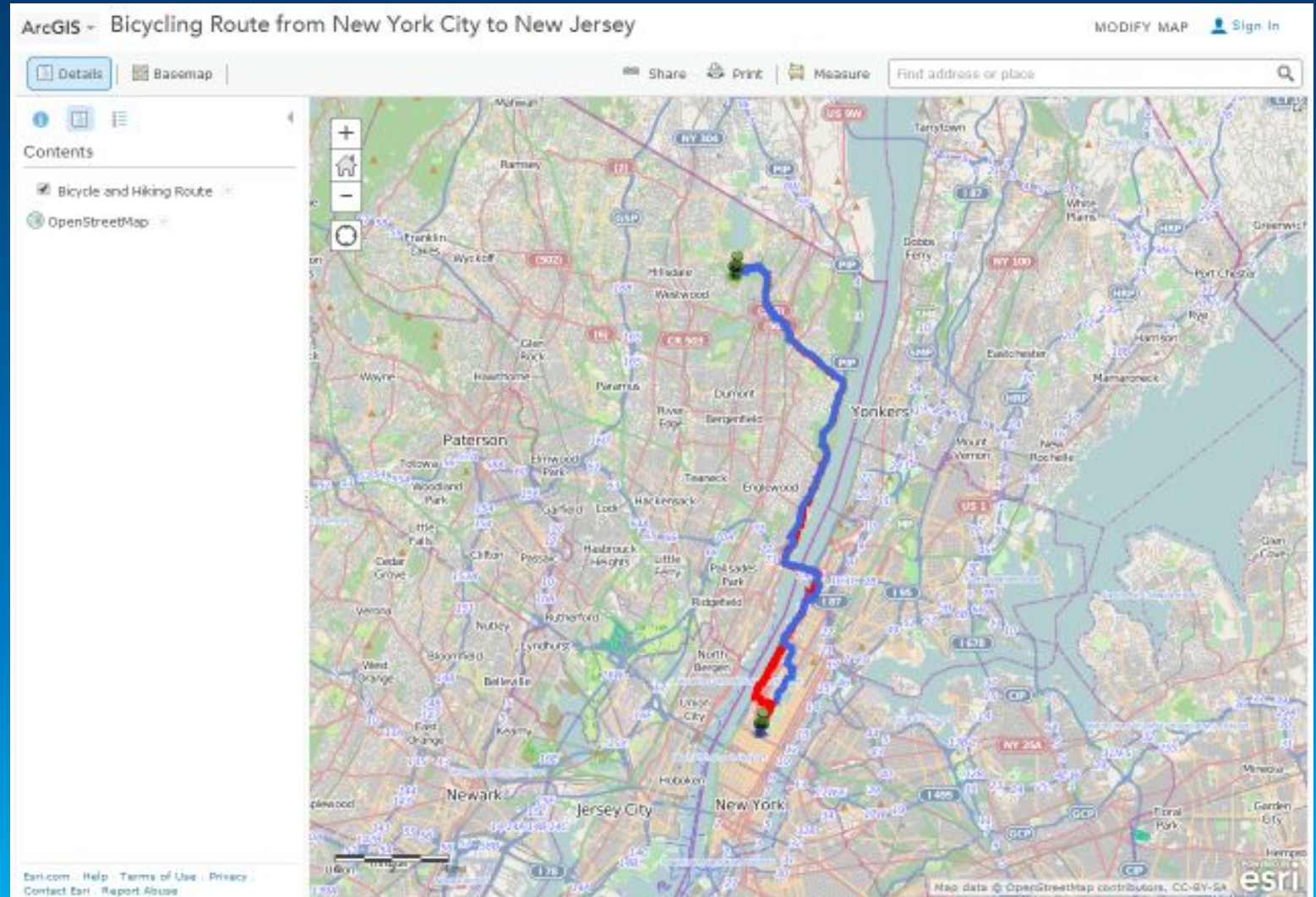
Maps vs. Applications: Applications

- **A web mapping application is stored in the ArcGIS Online cloud as well, but contains a specialized or reduced set of tools for the map user to interact with.**

- **At right is a web mapping application for the same bicycling route I took from New York City to New Jersey.**
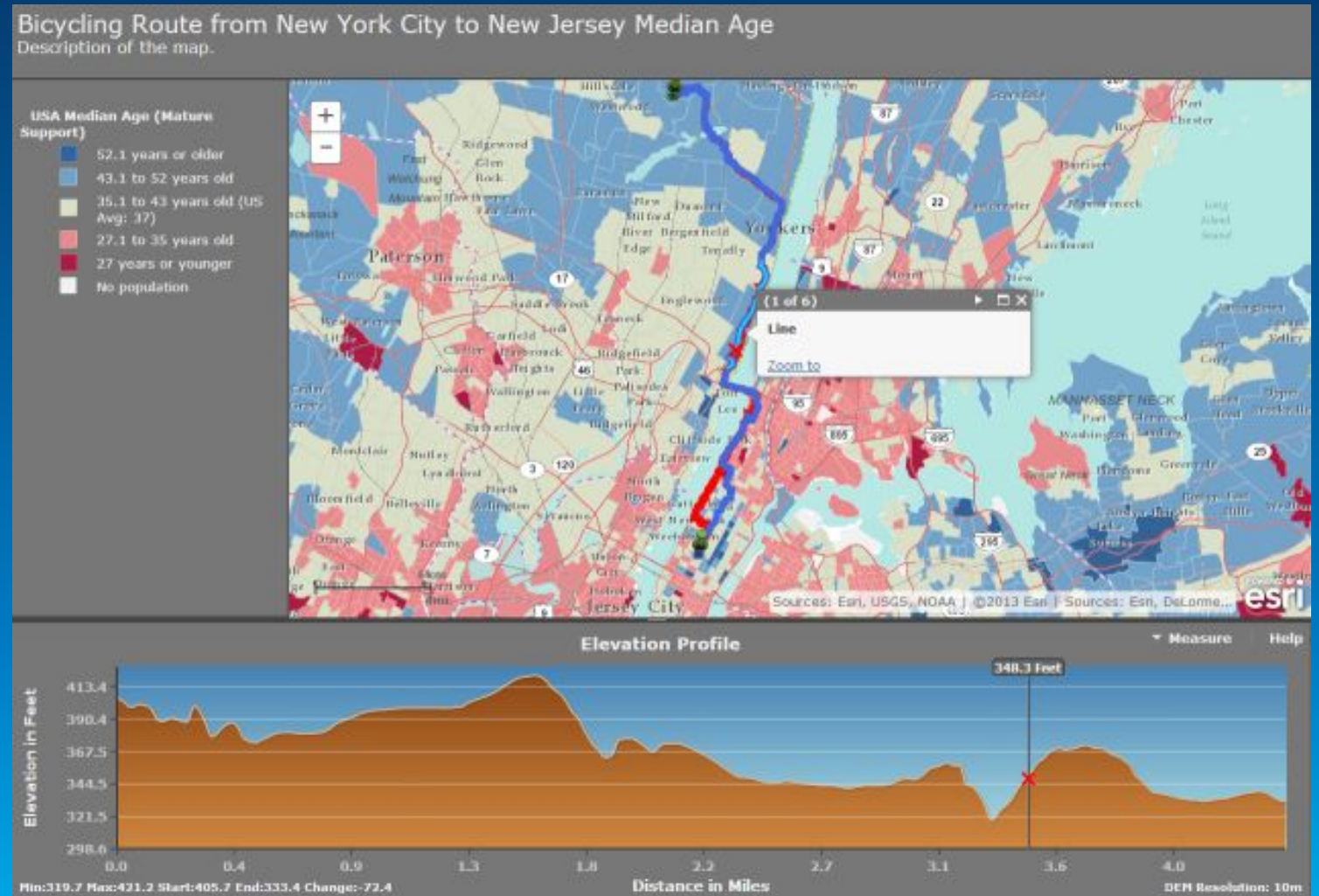
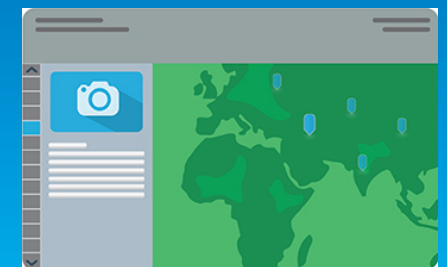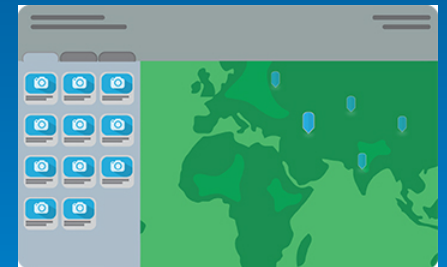# Maps vs. Applications: Story Maps are Applications!

- **A story map is a type of mapping application that is stored in the ArcGIS Online cloud, and has a specific set of tabs, text, photographs, video, and audio capabilities presented to the map user.**

- **At right is a web story map application for the same bicycling route I took from New York City to New Jersey.**
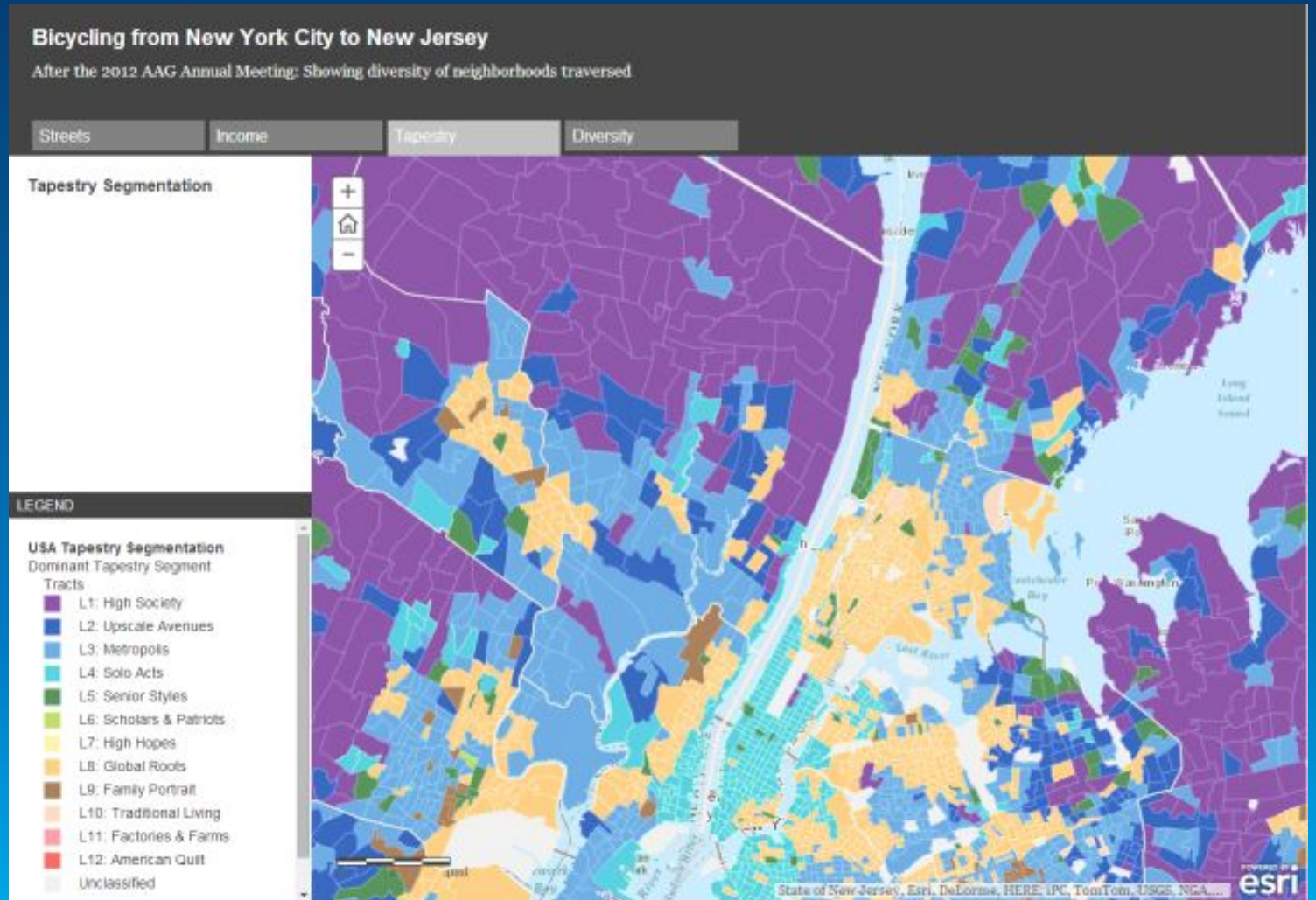
Major Types of Story Maps

❖ **Story Map Tour**

❖ **Story Map Journal**

❖ **Story Map Shortlist**

❖ **Story Map Countdown**

❖ **Story Map Playlist**

❖ **Story Map Basic**

❖ **Story Map Series – Tabbed, Side Accordion, Bulleted'**

❖ **Story Map Swipe and Spyglass**

❖ **Custom**

2 Main Ways to Create Story Maps

1. Publish ArcGIS Online map to a web application. Choose story map for the application type. These are stored on the Esri-hosted server.

2. Download and customize story map templates for your own use. Upload story maps and related files to <u>your own</u> server.

For both methods:

- Story maps are based on ArcGIS Online maps!

- If you change the map, the story map (and other) applications change as well!

3 Key Points about Story Maps

1. The story maps available for use in education are rapidly expanding.

2. The tools to create story maps are rapidly evolving and becoming more varied and easier to use.

3. Good planning makes for a good story map.

Method 1: Story Maps as Web Applications

- **Upload and organize your multimedia: Photos and videos.**

- **Start with an existing map or new map.**

- **Share and publish to a web application.**

Examples:

- **Anchorage Urban Bears**

- **Titanic**

- **International Perspectives on Teaching and Learning with GIS in Secondary Schools.**

- **Other examples on http://www.josephkerski.com**
  - **Texas A&M University, Lost Detroit, Brugge Belgium**

Hands-On Activities

1. Exploring Story Maps.

2. Creating a web map and a story map web application.

3. Creating a map tour story map.

4. Adding content to a map tour story map.

5. Using the downloadable story map templates: Demo.

Hands-on Activity 1: Exploring Story Maps

- Examine the story maps gallery:

- http://storymaps.arcgis.com

- 1. Browse the gallery and select one map that you like or find useful in education.

- 2. Discuss with your neighbor what you found interesting or useful about your chosen story map.

Hands-on Activity 2: Creating a web map and a story map web application.

1. Start new map.

2. Add layer from ArcGIS Online: **state_high_points owner:jjkerski**

3. Symbolize and classify differently; change layer name; create bookmarks.

4. Save map as ArcGIS Online map. Share map.

5. Share map again and this time, create web application: Storytelling Basic.

Hands-on Activity 3: Creating a Map Tour Story Map

1. Go to http://storymaps.arcgis.com and "Browse the story map applications"
→ sequential based narratives → Build a Tour.

2. Images are on: Picasaweb/Google Plus under jkerski@esri.com in album: "A Walk To the San Diego Airport Geotagged."

3. Add captions, title, subtitle, metadata. Save and share.

4. Examine settings, add, organize, import.

Hands-on Activity 4: Adding Content to a Map Tour Story Map

1. **Change one of the tour points from a photograph to a video. Access the "tall masts" tour point. In a separate browser tab or window, access video: Star of India Ship, San Diego harbor, at: https://www.youtube.com/watch?v=Q2ZhfvfaD1g**

2. **Share, Embed, copy source code URL. On map tour: Change media to video, paste URL. Make sure http:// appears at beginning of URL. Apply. Test.**

3. **Go to My Content. Open web map. Add Layer from File: GPX file. Symbolize. Save web map.**

4. **Open your story map app. Make sure GPX file has been added.**

Method 2: Using the Downloadable Story Map Templates

- Examine templates and "how to" documents and videos.

- Describe how to download and modify templates to create Story Maps.

- Show examples of Story Map template:

- Brugge and West Flanders, Colorado History and Geography, and others on: http://www.josephkerski.com/resources/web-maps/

- CV and Young Scholars as Story Maps.

Understanding our world.

Storytelling with Esri Story Maps

Exercise 1: Exploring Story Maps

Estimated time: 10 minutes

Maps have been used to tell stories for thousands of years. Why? In large part, it is because maps have always been an efficient means of conveying a large amount of information in a small amount of space. Yet as rich as those maps scrawled in the dirt, or later etched on stone, carved in wood, and drawn on paper, linen, vellum, and film were, GIS allows for a greater amount and richer information to be conveyed in map form. GIS provides capabilities that allow the map reader and GIS user to derive additional information about the place, region, issues, and phenomena under study, using different scales, symbologies, analytical and statistical tools, multimedia, and publishing into a wide variety of formats. ArcGIS provides a platform for those maps to be created, modified, analyzed, embedded, searched, and shared.

In this exercise, you will explore different ways to tell stories with web-based GIS, and ArcGIS Online in particular, with a focus on the Esri Story Map capabilities and templates.

In these exercises, you will:

- Explore ways to tell stories with ArcGIS Online, including maps and web mapping applications.
- Browse the Esri Story Map galleries.
- Reflect how to teach with Esri Story Maps.
- Understand the differences and similarities between ArcGIS Online maps, web mapping applications, and story maps.
- Create a map, and publish it as a Story Map Web Application.
- Add multimedia map notes, video, and a GPS track to your web maps.
- Publish a Map Tour story map.
- Investigate how to use the Esri Story Maps templates.

Step 1: Browse Esri Story Maps Gallery

☐ Go to http://storymaps.arcgis.com and browse the **Gallery**. Esri Story Maps are built on the ArcGIS Online platform. They provide an easy and rich way to integrate photographs, video, text, and maps into an interactive story experience for the user.

Step 2: Discuss 1 Map on the Story Maps Gallery

☐ Select one map you like or that you find useful, and discuss with your neighbor what
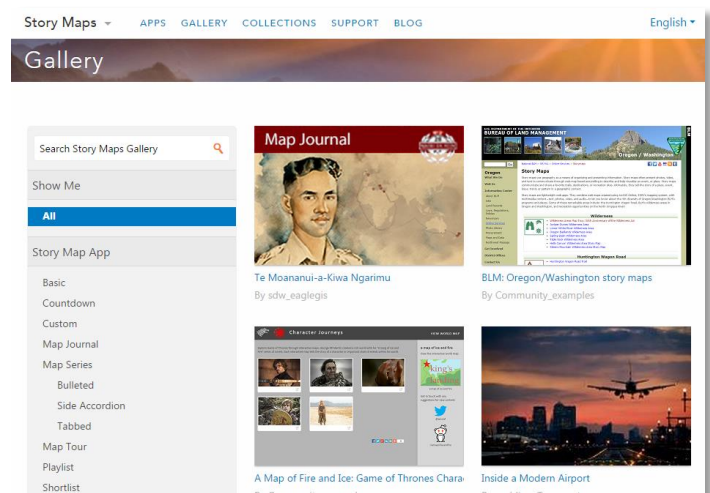
you found interesting about it and how you might use it in teaching, learning, or research.

Question 1. Describe your chosen map and how you might use it:

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Story maps provide a rich medium for instruction. You can use existing Story Maps, or you can create your own. You have already examined some Story Maps in the Gallery, but let's now examine a few that the author of this activity (Joseph Kerski) created.

In this exercise, you will:

- Examine maps that were created using the Esri Story Maps template.
- Discuss how you might teach and encourage student learning with these maps.

Step 3: Examine Four Story Maps and Discuss How They Were Created

☐ Navigate to http://www.josephkerski.com. Go to Resources → Web and Story Maps.
   You should now be on the following page:
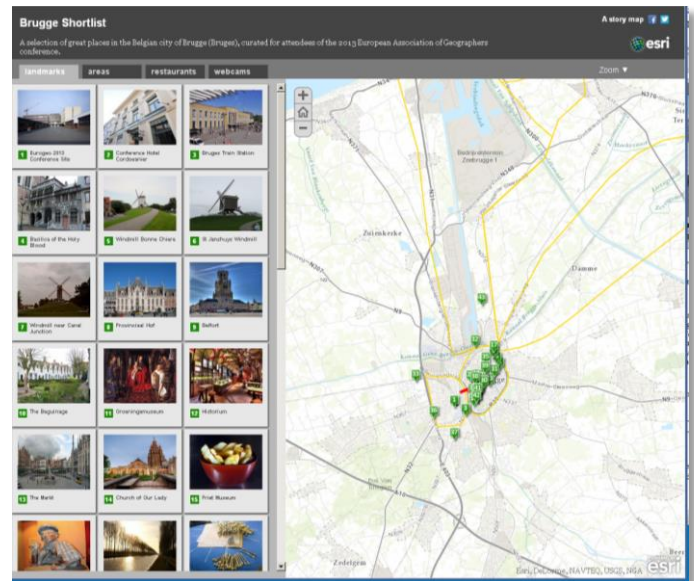   http://www.josephkerski.com/resources/web-maps/

☐ Examine and discuss the Lost Detroit map as an example of a local or community story. In this case, the story is about large public abandoned buildings in the city. Note the distribution of the buildings in Detroit. Note the pop-up images and light gray canvas basemap. Note the connections to a story that the students need to read all or part of for the full unit that this map is housed within.

☐ Examine and discuss the "20 on 40" (20 points along 40 ° North) map as an example of a regional or continental story. In this case, the story is about how landforms, population, ecoregions, water, and land use change across the USA at 40 ° North latitude. Note the similarities to the Detroit map—both use the Map Tour template. Note the different basemap (topographic). Note that the thumbnail images do not have to be the same as the larger images, as shown in the image at right.

☐ Examine and discuss the "10 landscapes of wonder and change" map. In the case of this map, the story is anchored in geomorphology, the examination of the origins, change, and physical characteristics of landforms. Note the similarities to the other maps—it is also using the Map Tour template. Note the different basemap (USGS topographic) and the larger scale that is set for each frame.

☐ Examine and discuss the Brugge Belgium history and geography map. In this case, the story is about the city and region of West Flanders and Brugge (Bruges) Belgium. Note the differences to the other maps—this one uses the Shortlist template. Note the different basemap. The point locations were created from spreadsheets in MS Excel and saved as CSV files to ArcGIS Online. Note the zones, conference site, and procession lines and polygons. These were digitized in ArcGIS desktop, saved as shapefiles, and shared on ArcGIS Online. The shapefiles must contain the same fields as the CSV files.

Part of the CSV for the landmarks appears below. Note the latitude and longitude fields:

Question 2. Describe differences and similarities between the Esri Story Maps you have examined thus far:

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Conclusion

You have begun to explore similarities and differences between Esri Story Maps and have discussed how they are made. Most of the templates that these Story Maps are created from are customizable, and you can create your own story maps from them. You are now ready to create your own Story Maps!

Answers to Exercise 1 Questions

Question 1: Describe the Story Map you chose and how you might use it.

Answer: Answers will definitely vary, because many Story Maps and possibilities exist!

Question 2. Describe differences and similarities between the Esri Story Maps you have examined thus far:

Answer: Answers will vary, but possible answers include: Differences: Format of page, basemap used, theme analyzed, scale chosen, symbology, text, and so on. Similarities: Each typically has a live web map (or more), photographs, text, and a frame structure to hold it all together.

Exercise 2: Creating a Web Map and a Story Map Web Application

Estimated time: 20 minutes

In this exercise, you will create an ArcGIS Online **map** and an ArcGIS Online **application**.

☐ Open a web browser and go to **www.arcgis.com.**

Your ArcGIS username and password for this workshop will be provided by your instructor. Please record them here:

Username_____

Password_____

☐ Log in to ArcGIS Online using the above credentials. Select MAP and NEW MAP. Use the Add button to search ArcGIS Online and Add the following layer: state_high_points (or state_high_points owner:jjkerski). When found, add the layer, as shown at right. After the layer has been added, select Done Adding Layers.
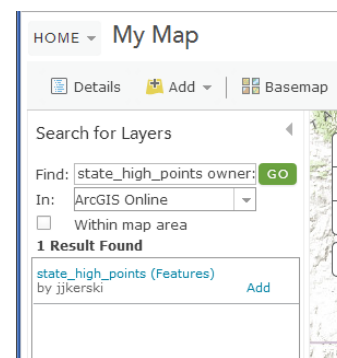
☐ Show the Map Legend and observe the patterns. Why are all of the high points in the Great Plains states on the western sides of those states? Do any high point locations surprise you?

☐ Zoom to a desired location. Create a bookmark there. Zoom to the 48 contiguous USA states. Create another bookmark. Zoom to the 50 USA states. Create another bookmark, which will save that particular map view. Discuss how bookmarks provide one way of telling stories with maps.

☐ **Save** your map as High Points USA EdUC 2015 <your initials>. Because you always are a good metadata steward, provide a suitable title, tags, and a summary.

☐ **Share** your map with your organization.

☐ **Share** your map again, and this time, make a web **application**, as follows. A web map, which is what you published above, uses the default ArcGIS Online tools and interface. A web **application** is a web map product that uses a specific template so that your end user will have a specific experience with your map, seeing the tools and appearance that you specify.
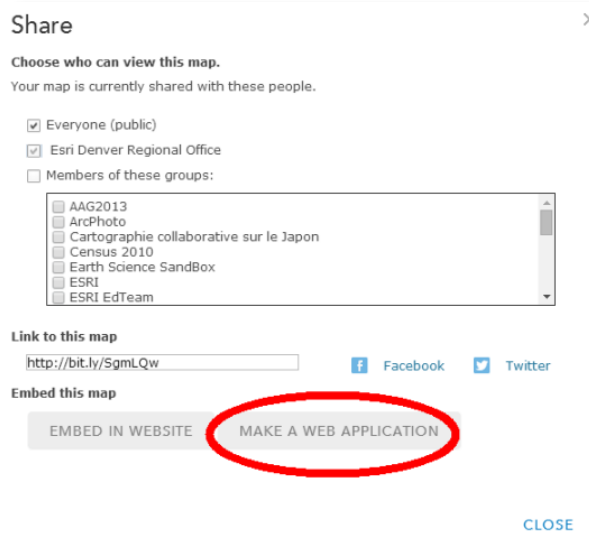
☐ Select "Story Map Basic" for your web application, (at the time of this writing, this is on Page 3 of the Web Application templates). Select "Publish." On the "Make a Web Application" screen that will then appear, give your web map the title: State High Points USA EdUC 2015 < your initials> Story Map Basic. Give it some tags and a summary. Then: Click Save & Publish. Congratulations! You have published a story map! Therefore, as you have seen, a story map is a type of web **application.**

☐ You will now be placed in an Application Settings zone, as shown at right. Give it a title and subtitle, and then select "Save" and "Done". On the metadata screen that appears next, share your storymap with your organization.
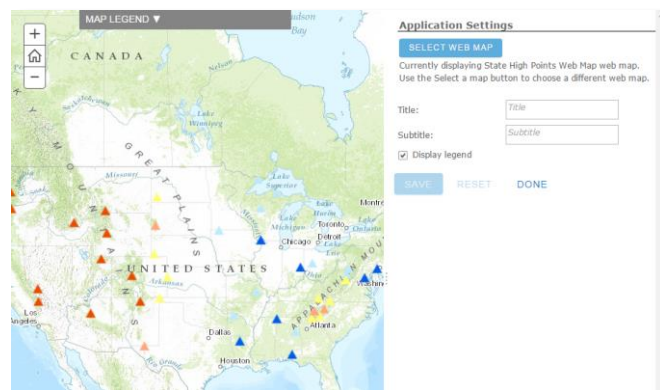
Then, open your map: "View Application." Make some observations so you will be able to answer Question 1, below. Then, go to "My Content" and make some observations so that you will be able to answer Question 2 below.

Question 1: What are two differences between the ArcGIS Online web map that you created first and the Story Map web application? When might you want your data users to use the web map, and when might you want them to use a web mapping application?

Question 2: What is the **connection** that exists between the web map and the web app?

Excellent! In this exercise, you created a web map and a storytelling web app. Many other types of storytelling applications exist, and you will explore some of those in Exercise 3. First, though, you will create one type of multimedia and use it to tell a story.


Exercise 3: Creating Multimedia Map Notes

Estimated time: 15 minutes

In this exercise, you will create map notes with a pop-up box as an illustration of how stories can be told with multimedia and ArcGIS Online.

☐ Open your high points **map** in the map viewer. Use Add→ Map Notes → Select a point symbol and add it to your map at one of the high points that is of interest to you.

☐ Add the following to your pop-up box for that point: Title, description of the high point, a photograph of the point, and a link to a web page where you want your map readers to be routed if they click on the photograph. The photograph needs to be one that can stand alone on the web; i.e. be opened as a separate web page, such as this nerdy image of Joseph Kerski on the hallowed ground of Mt. Sunflower, Kansas: http://confluence.org/us/ks/n39w102v2/pic7.jpg.

Also, you should get into the "best practice" of using either your **own** images, images held in Creative Commons licensing (such as most from Wikipedia), images from U.S. government agencies, or other non-copyrighted images, and not content from a commercial site such as "Bob's Photography Inc.com."
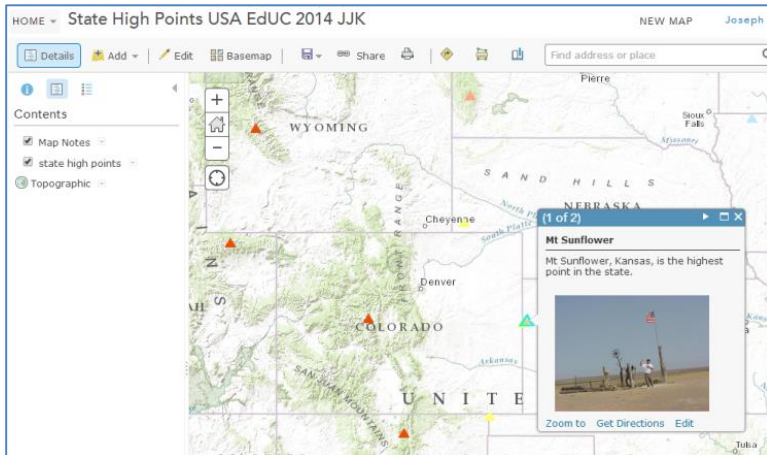
☐ Exit the edit box for map notes, and test your pop-up box by clicking its associated point.

☐ Save your map again. Go to your "My Content" list, and open your web mapping **application** again.

Question 1: Does your pop-up box and image appear in your web mapping **application?** Why?

Excellent! In this exercise, you learned how to create a pop-up box with multimedia. Multimedia through map notes is another way to tell stories with maps.

Answers to Exercise 2 and 3 Questions

Exercise 2, Question 1: What are two differences between the ArcGIS Online web map that you created first and the Story Map web application? When might you want your data users to use the web map, and when might you want them to use a web mapping application?

Answer: Though answers will vary slightly, ArcGIS Online web maps have the full ArcGIS Online interface and functionality. Users can add and modify them and save them into their own accounts. ArcGIS Online web applications have a reduced or modified interface as specified by the application author. Users cannot add data to the application unless the author has allowed them to do so. Users cannot modify the interface. They are intended to be the "end product" for the map user.

Exercise 2, Question 2: What is the **connection** that exists between the web map and the web mapping application?

Answer: The web application is based on the web map. If others cannot access your story map, it is usually because the original web map has become unshared or deleted, or the map author has added content into the web map that is not shared properly or that is only available to organization subscribers. Therefore, the best practice for authors is to test your story map on a different computer, ideally from a different network than the one used for authoring the original content. Also, test your story map when completely logged out of ArcGIS Online if you truly want it to be available to "everyone." These techniques will also help you troubleshoot things like graphics that are too large and thus affect web performance, missing photographs or photographs that are not correctly located, and other items.

Exercise 3, Question 1: Does your pop-up box and image appear in your web mapping **application?** Why?

Answer: Yes, your pop-up box and image should appear in your web application, because, again, the web application is based on the content in your web map. Your pop-up box might be very close to the location of your original high point "point features," and so you might see the point feature pop-up box first, as 1 of 2. If so, be sure to arrow over in the top of the pop-up box (to 2 of 2) so that you can see your multimedia pop-up box.

Exercise 4: Creating a Map Tour Story Map

Estimated time: 10 minutes

Now that you understand what Story Maps are and how to create a story map application from an ArcGIS Online map, you are now ready to a different kind of story map—a Map Tour. A map tour is one of the most popular types of story map and one of the easiest to create.

In this exercise, you will:

- Create a map tour story map through incorporating geotagged photos, adding captions, and customizing the tour.

Step 1: Create a "Map Tour" Story Map.

☐ Go to http://storymaps.arcgis.com and select, in the top bar, "APPS."

☐ Log onto your ArcGIS Online account.

☐ Under Sequential Place-based Narratives → Story Map Tour, select "Build a Map Tour."
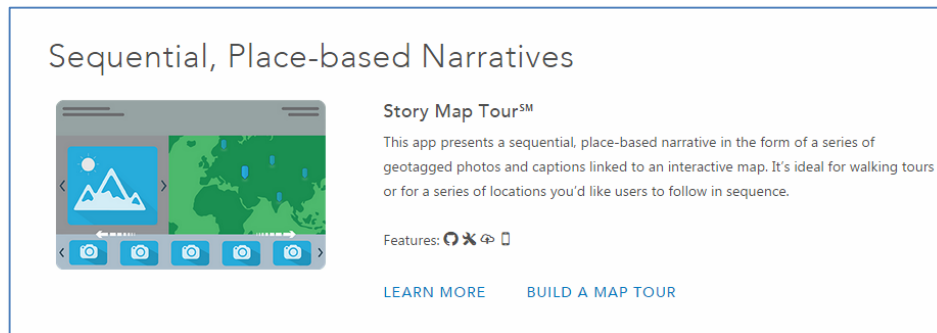
☐ On the screen asking "where are your images or videos?" select Picasaweb/Google Plus.
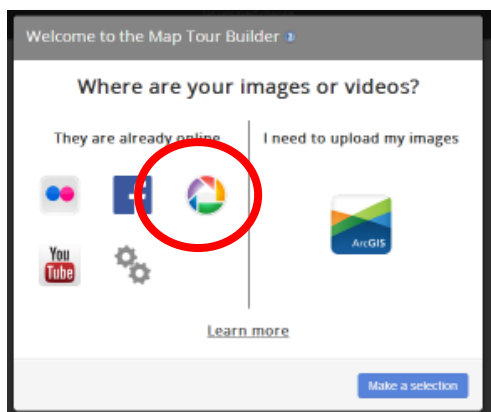
☐ Then, input jkerski@esri.com in order to look up Joseph's photos on the site, and then select the album "A Walk to the San Diego Airport Geotagged" as follows:
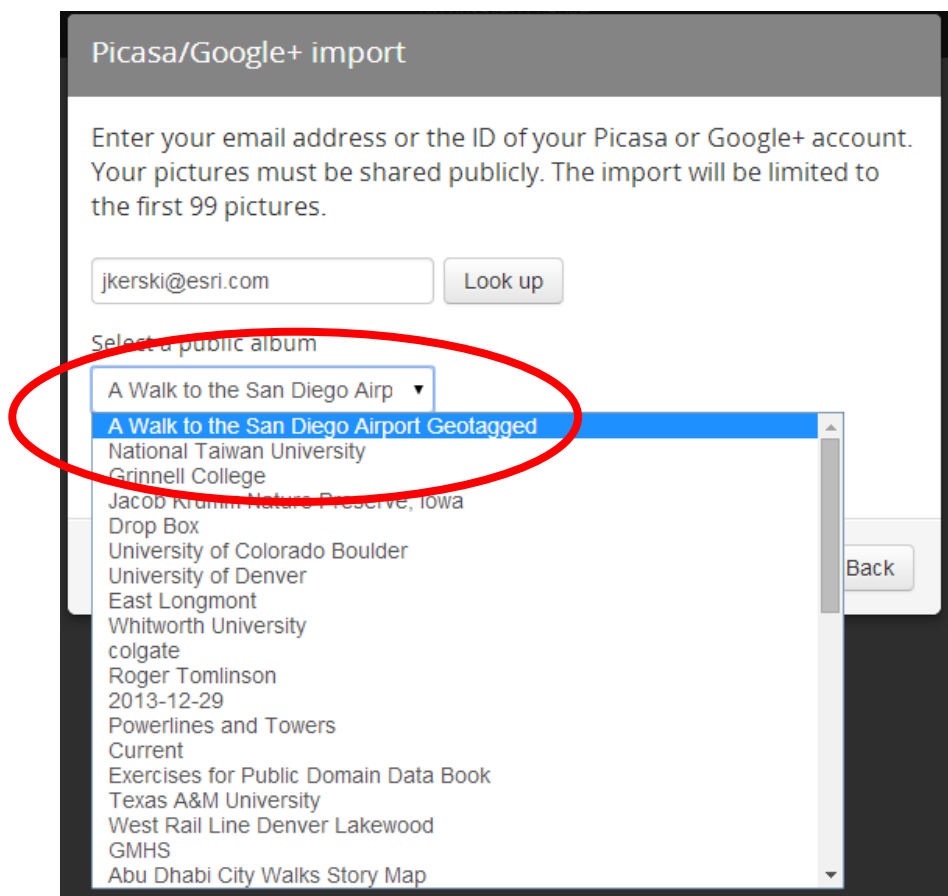
☐ A total of five photographs should be geolocated, or geotagged. If your photos are not geolocated, you can (1) place the photos on their correct locations on the map at this point, or (2) use www.geoimgr.com or another method to geotag your untagged photographs ahead of time. In the example you are working with now, the photos were taken from a smartphone with the GPS turned on, so they are all geolocated.

☐ Select "Import" as shown here.

☐ Next, add captions as follows: Photo 1: Esri International User Conference at the San Diego Convention Center, Photo 2: This is a private yacht? Woah! Photo 3: Ah! To be sailing under the tall masts. Photo 4: All that sea-level oxygen. Photo 5: Almost at the airport!
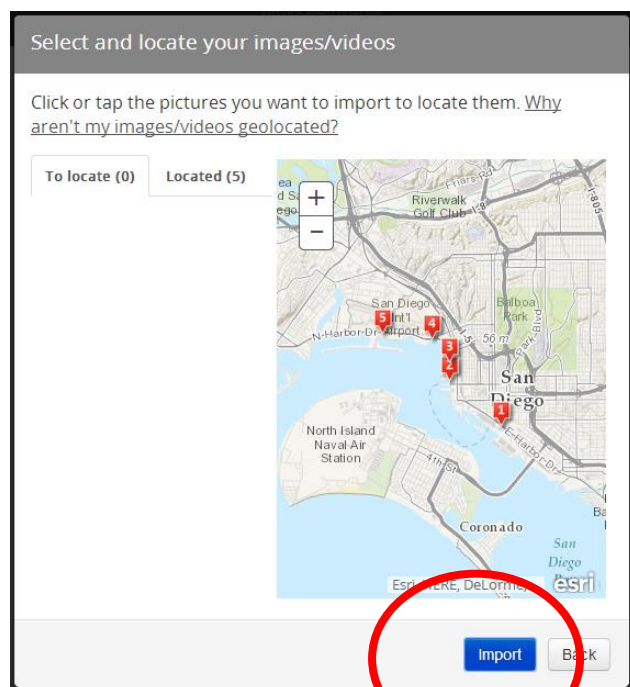
☐ Give your map an appropriate title and subtitle. Include "For the 2015 Esri GIS Education Conference" in the subtitle. Save your map, and close the dialog box (with the bit.ly URL) that appears after you save. Share your map with your organization (or with the public if you so desire).

☐ Note the scale of your map as you move between the different points along your tour. You can change that in Settings. Note that you can move tour points if the position is not quite correct; such as if the position was compromised by indoor photography or the presence of tall trees or buildings. Also, take note of the Add, Organize, and Import options in "builder mode" and make sure you understand that these tools allow you to add new tour points, change the order of your tour points, and import new photographs.

☐ Save your map again. Test it by opening it in a separate browser window without the "&edit" tag on the end of its URL. You have created a map tour story map. Congratulations!

Question 1: What do you think the advantages are of storing all of your photographs for a specific story map project in a single online folder, as the folder for the San Diego airport walk that you worked with above?

Conclusion

You have created and published your own Map Tour Story Map! In the next exercise, you will add other types of content to your map tour.

# *Exercise 5: Adding Content to a Map Tour Story Map*

Estimated time: 10 minutes

Additional types of content can be added to any type of story map, such as point, line, or polygon shapefiles, video, GPS tracks, and other items.

In this exercise, you will:

- Change one of the tour points from a photograph to a video.
- Add a GPX file from a track collected on a smartphone for the San Diego airport walk.

☐ First, let's change one of the tour points from a photograph to a video. To do so, access the "tall masts" tour point. In a separate browser tab or window, access the video: Star of India Ship, San Diego harbor, at: https://www.youtube.com/watch?v=Q2ZhfvfaD1g

☐ Go to Share, and then Embed. Copy the source code – the embed code **only**, including the // as shown below, to the clipboard:
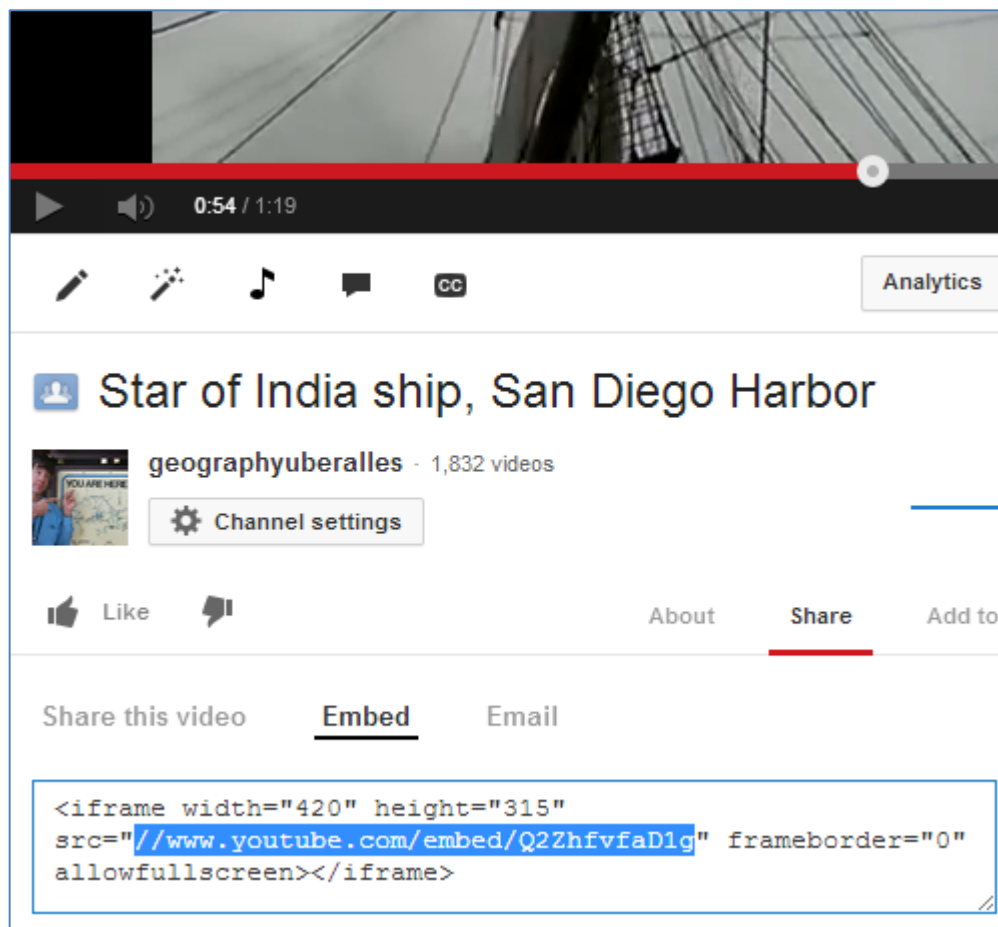
☐ In your map tour, at the top of the tall masts image, select Change media. Select "Video," and paste your URL into the box. Make sure the video URL begins with http://, as shown below. Select Apply.


☐ Test your video. Save your map tour. You have successfully embedded a video into your map tour! The next activity will demonstrate how to add additional content to your map tour.

☐ The only content that you can add directly to the map application is what the builder mode permits you to do. All other content, such as vector lines, points, and polygons, must be added to the web **map**. As you know, changes in the web **map** will be automatically reflected in the web mapping **application**. Let's demonstrate with a GPX file. A GPX file is an XML file (GPS Exchange Format) that is output from a
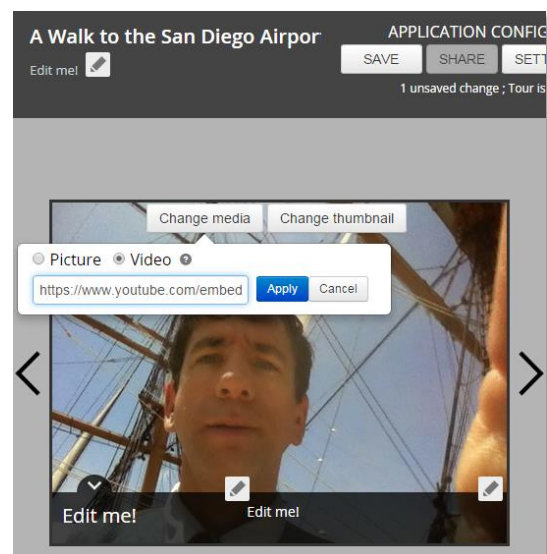
smartphone or a GPS unit, which describes and contains the coordinates for waypoints, tracks, and routes.

☐ Go to your "My Content" in ArcGIS Online. You should see two items related to "A Walk to the San Diego Airport"—a web map, and a web mapping application (your story map). Open the web map.

☐ Note the "map tour points" layer that the story map builder created. Use the Add button and add the San Diego airport GPX track from the location given by your instructor. Note that the file contains trackpoints and a track line:
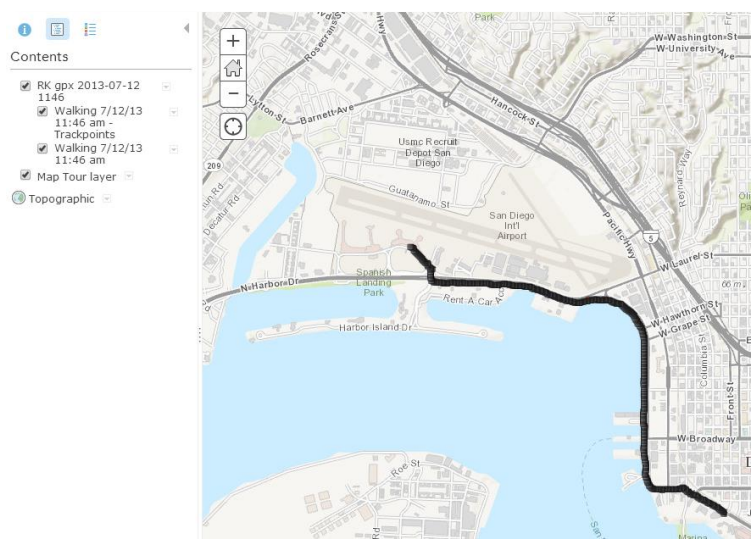
☐ Change the symbols of your track points to red, and change your track line to red. Save your map.

☐ Access "My Content," and open your story map application. You should see your GPX file inside your story map. Congratulations!

Question 1: Why did you add the GPX track to your web map, rather than directly to your story map?

Answers to Exercise 4 and 5 Questions

Exercise 4, Question 1: What do you think the advantages are of storing all of your photographs for a specific story map project in a single online folder, as the folder for the San Diego airport walk that you worked with above?

Answer: Storing all of your photographs in one folder makes the creation of a map tour much more efficient from both time and management perspectives. It eliminates the need of adding additional photographs from other online locations.

Exercise 5, Question 1: Why did you add the GPX track to your web map, rather than directly to your story map?

Answer: Web applications, including story maps, are based on at least one (and sometimes more than one, if they are multi-frame) web map. Making changes to the web map changes the web application as well. Thus, you only have to add content to the web map, and not to *both* the web map and the web application.

Exercise 6: Using the Downloadable Esri Story Map Templates

Estimated time: 10 minutes

Now that you have created your own Story Map web application, let's discuss how to make a fully-customizable Story Map using the downloadable Story Map templates.

In this exercise, you will:

- Discuss the differences between publishing a web application Story Map vs. working with the downloadable Story Maps template.
- Examine the steps involved in downloading, modifying, and uploading a Story Maps template.

Step 1: Discuss differences between publishing a web application Story Map vs. Working with the downloadable Story Maps templates.

☐ Recall that several ways exist to publish a map as a Story Map. You have already created a Story Map Web Application. Using another method, downloading and using the Story Maps templates, is a bit more complex than what you did in Exercise 1D, but provides additional power and flexibility. For example, compare the map you just made with this map: http://www.josephkerski.com/storymaps/brugge_shortlist/. This is a map the author made with one of the downloadable Story Maps templates, in particular the "shortlist" template. This and other downloadable templates provide more functionality than publishing to the web application directly from ArcGIS Online.

☐ From http://storymaps.arcgis.com, go to the "APPS" link. You should now be at the following page: http://storymaps.arcgis.com/en/app-list/

☐ Note that some of the types of story map applications do not have a "Builder mode" associated with them. To use these, you do not need to know how to code, but you do need to understand how HTML works. In addition, you do need access to a web server to host your Story Map. In other words, if you use these, usually your story maps will

reside on your own server, rather than on Esri's servers. You can even use the Public folder on Dropbox.com (if you have a Dropbox account), or web hosting environments to build websites that host your storymaps.

Step 2: Demonstrate how to publish a map as a Story Map Web Application

☐ First, think about your story, your audience, your goals, and the web experience you want your audience to have. Then think about the cartography, the scale, the symbology, the images, and the interface you want for your Story Map. Examine this document to think about how to tell stories with your Story Map:
http://storymaps.esri.com/downloads/Telling%20Stories%20with%20Maps.pdf

Also, examine this document describing workflows and best practices for building story maps and telling stories with maps:
http://storymaps.esri.com/downloads/Building%20Story%20Maps.pdf
http://storymaps.esri.com/downloads/Telling%20Stories%20with%20Maps.pdf

☐ This playlist of five videos that the author (Joseph Kerski) created on Story Maps might be useful:
http://www.youtube.com/playlist?list=PLiC1i3ejK5vsOn6cQS_m4dk5YAtoEBFq0
Alternatively, go to http://www.youtube.com/geographyuberalles → Playlists → Esri Story Maps for Education II.

☐ Creating a Story Map involves the following steps:

(1) Download the Story Map template that corresponds to the user interface that you require for your story.

(2) Unzip the zip file to a location on your computer. You will now have folders such as images, libs, and skins, and an index.html and other files. You will have dozens or even hundreds of files, but only a **few** of them need to be altered for your own Story Map. But they are all needed and must be uploaded to your server. That is the beauty of a template: You are taking advantage of the work that someone else has done and just modifying it, rather than creating the whole thing from scratch.

(3) Before editing anything, it is best to make a copy of everything in a separate folder, in case you inadvertently alter something you did not mean to alter (!).

(4) Depending on the type of story map you have chosen, you will refer to the corresponding tutorial. To create the playlist story map, for example, you would refer to the step-by-step instructions and download the configurable app from:

http://storymaps.arcgis.com/en/app-list/playlist/. No matter what type of map you have chosen, you will do some light editing of the index.html file. This file, as you know, is the main document that controls the look and behavior of a web page, including story maps, which live on the web. You will be changing the title of the web page in the HTML, the byline, the URLs for where your photographs reside (Picasaweb/Google Plus, Flickr, etc., anywhere is fine, as long as they are publicly accessible), the basemap, map center and zoom, and a few other items, depending on the template you are using.

(5) Tips on photographs:
- Make them small so they will be easy for your browser to draw.
- Ideally, move them to your own web server so that you won't encounter any broken links. Make sure you cite your photograph sources.
- Ideally, resize them to all be the same size for a more professional look and feel.
- Use either your OWN images, images held in Creative Commons licensing (such as most from Wikipedia), images from U.S. government agencies, or other non-copyrighted images, and not content from a commercial site such as "Bob's Photography Inc.com." If you are using a source that is copyrighted, or you are not sure if it is copyrighted, be sure to ask permission from its owner.

(6) Create an ArcGIS Online map containing your content. This content could be from an uploaded CSV with street address or latitude-longitude coordinate pairs, from map notes, from an uploaded shapefile, or from other sources. As you know, Story Maps depend on your ArcGIS Online map, so that when you change your ArcGIS Online map, your Story Map automatically updates. Save and share your ArcGIS Online map.

(7) Point to your ArcGIS Online map in your story map documents. Upload your edited story map documents to your own server. Test your story map with a variety of browsers, operating systems, and devices.

Question 1. Summarize the major steps in using the Story Maps downloadable templates to publish a Story Map:

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Conclusion

You have examined how to use the Story Maps downloadable templates. I encourage you to publish a Story Map soon from the downloadable templates and to share your

maps with the GIS education community.

Answers to Exercise 6 Question

Question 1. Summarize the major steps in using the Story Maps downloadable templates to publish a Story Map:

Answer: Answers will vary somewhat, but should include these elements: Download template. Modify a few lines in index.html. Organize your photos and upload them to a server. Gather and/or create content that you need and upload it to a server. Create an ArcGIS Online map that houses your data. Upload a Story Maps template to a server. Test your Story Map. Document your map and story map with sufficient metadata! Publicize your story map: Embed it in blog, Tweet and LinkedIn and Facebook about it, email the link to colleagues, send to ListServ, drop leaflets from dirigibles (biodegradable, of course!), and use other methods to let others know about and use the good work that you have created.

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