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WORKING WITH STORY MAPPING APPLICATIONS

TOPIC 6: MAKING A MAPPING STORY

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Introduction

The learner will create two public Story Maps using one or more of the following software platforms: Google Tour Builder, Knight Lab Story Maps, and/or Esri Story Maps. If there is another open-source story map program that the user would like to use, please consult with your instructor prior to using it. The story maps will contain maps and pictures related to a specific topic. It is important that the pictures and maps tell a story about a place or specific theme.

What is a Story Map

A story map as the name indicates is telling a story utilizing maps. Many times, the story maps utilize pictures to explain the geographical location(s) or an event(s). The story could be either current or historical in nature. For example, the story might be a tour of similar type items, such as street art in a certain locality or across the country or the world. The development of a theme is a critical first step in creating a functional story map, just like writing a paper. Once the theme is developed, outlining the story is a logical next step. These writing concepts are not covered in this topic.

The source(s) of information for a story map can vary greatly. Story maps bring events in time and location to life for the general population and is a very powerful tool. For the story maps created, assume that the audience has little or no background knowledge of the topics being constructed. The subject of a story map could also be at a high level for the professional community instead of the general public, but for these exercises, a lower level of understanding will be the focus.

A typical story maps usually have the following elements:

- Images, video, diagrams

- Maps of locations

- Descriptive text

Story Maps Should Contain

1. The first question that must be resolved is the purpose of the story map. It is very important that the story map have a clear theme with a single focus. There may be other uses for the story map (other than the author's concepts) but a single concept of what is being conveyed is critical. Multiple concepts are not nearly as effective, since the user may lose focus. One of the critical questions that must be considered is the primary audience for the information, while others might use the story map for their purposes, the designer should have a single audience as the primary focus.

2. Collect the information you want to display, find the pictures that are going to be part of the story. Not all story maps have pictures, but most do, use only those that are appropriate for the theme. Pictures will increase the visual appeal in the conveying of the story (remember the old adage that a picture is worth a thousand words). Assemble the data that is going to be displayed in the story map. For example, the author developed a walking tour of public art in

his local community. The information gathering took multiple trips around the community to make sure it was as complete as possible, which included researching different items and holding discussions with the local art council.

3. Once the theme has been defined and the material gathered the first step is developing your map. Higher end software can be used to prepare the needed maps; some application have a default basemap that cannot be modified. This is an important factor and may require trial and error to make sure that the basemap is serving the needs of the story. Many times, basemaps can hide the true concept and thus render the story map less functional.

4. In story map applications there is some amount of customization that can be done by the designer.

5. As with the building of any map, refining the information to display always is a critical factor. Once the process is started the designer might realize that addition information is required to make the project complete.

6. The last component is to make the story map viewable for either a select population (like within your organization) or available to everyone. Care must be taken to ensure that all used information falls within copyright laws. Being copyright correct is very critical, just because an image is online does not give the designer permission to include it in their publication. As a designer, it is important to understand how your information is copyrighted. For a complete understanding of fair usage, it is suggested that the designer explore creative commons. http://creativecommons.org

Getting Started with Google Tour Builder

1. To start this process, a connection to Google Tour Builder is required which is located at the following address: https://tourbuilder.withgoogle.com/

2. To use Google Tour Builder, a Google account is required. The basemap will be a Google Map.

3. The Google Earth plugin must be installed on the browser (if not already installed) to be used. Not all browsers will allow this plugin to function properly and administrative rights to the computer may be required. Since the Chrome browser is a product of Google this might be a good choice, but other browser should also work.

4. No specialized software is required to complete this lesson, but the designer must have an Internet connection.

5. The following example was constructed by the author, it is suggested that the learner view the example in full screen mode. [https://tourbuilder.withgoogle.com/builder#play/ahJzfmd3ZWItdG91cmJ1aWxkZXJyEQsSB FRvdXIYgICAgsHBqwoM](https://tourbuilder.withgoogle.com/builder#play/ahJzfmd3ZWItdG91cmJ1aWxkZXJyEQsSBFRvdXIYgICAgsHBqwoM)

6. To complete Google Tour Builder, ten pictures are required along with knowledge of the geographical location.

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7. To get started go to Google Tour Builder, login and select begin a new tour.

8. Provide a descriptive name for the tour as well as the name of the author, and then select create tour. See Figure 1

9. The next component will be the general set-up as seen in Figure 2.

10. An aerial image map will always be on the right side; the zoom level of the map can be controlled for each image.

11. The introduction slide allows the insertion of a photograph that assists in explaining the purpose of the story map. Write a short introduction about the tour. Set the map location for the introductory slide.
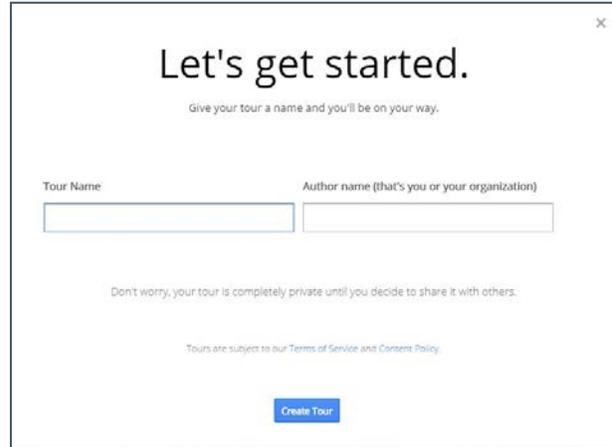
Figure 1: Getting Started

## Google Tour Builder adding a Photograph
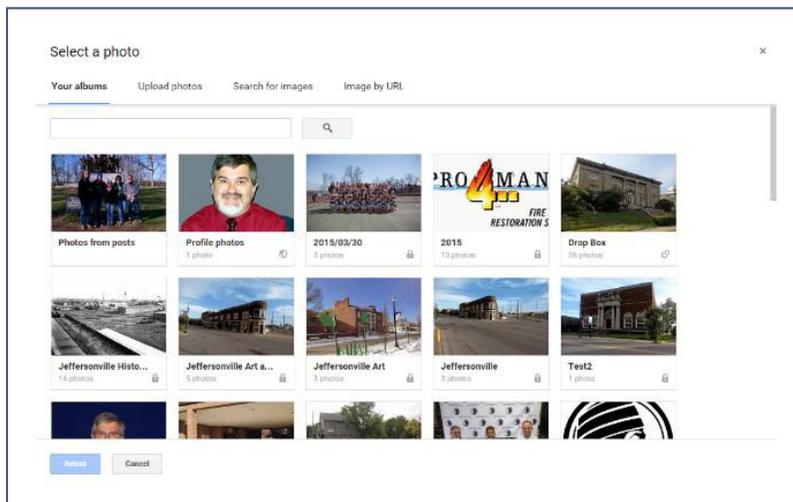
Figure 3: Albums
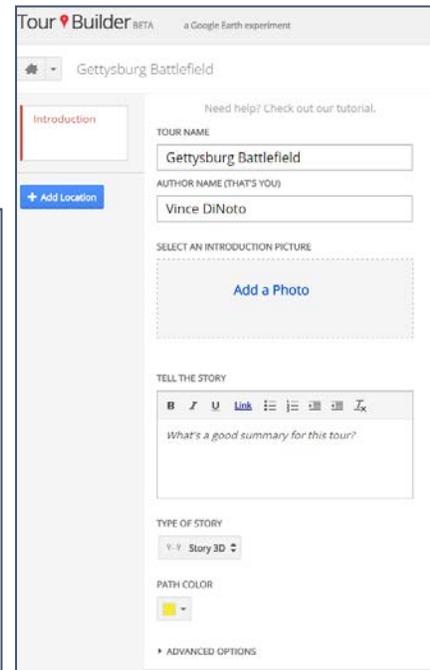
Figure 2: Set-up Screen

1. Photographs must all be in a single album, the album will be uploaded or the URL of each image is required. Select the album, which contains the photographs to be used in the story map, see Figure 3.

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2. The introduction image has been saved, see Figure 4.

3. A description has been written.

4. The initial zoom level of the map set.

5. The Type of Tour has been disabled.

6. Roads have been included.

7. To add the next image and the spatial location, see Figure 5:

   • Click Add location

   • On each slide select the location and zoom level

   • Up to 25 images can be inserted for each location.

   • Write a description of the location

8. Repeat the procedure to add additional points.

9. The tour is automatically saved but before leaving a page make sure the tour has been saved, save is located on the right side of the interface.

10. After completing the design phase press Done Editing on the right side.

11. Edit mode can be returned to as needed.

12. The URL of the example shown in the figure 6 can be accessed at: https://tourbuilder.withgoogle.com/tour/ahJzfmd3ZWItdG91cmJ1aWxkZXJyEQsSBFRvdXIYgICAksqQtAkM
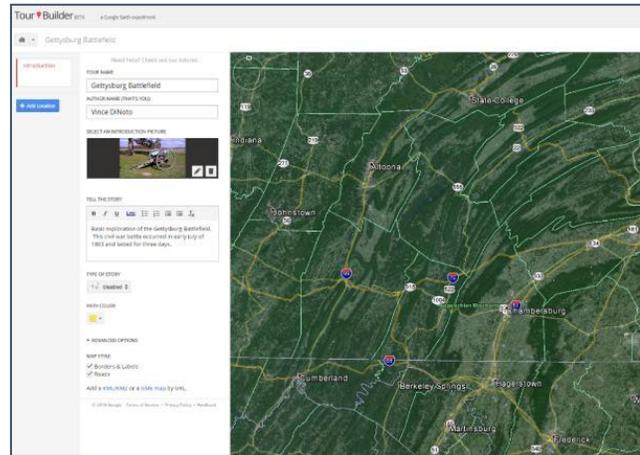

Figure 4: Introduction
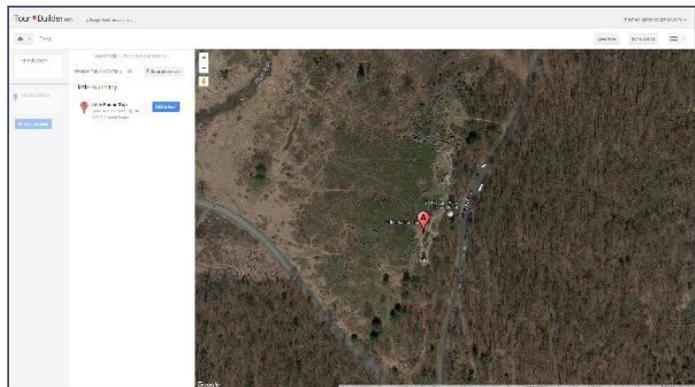
Figure 5: First Point
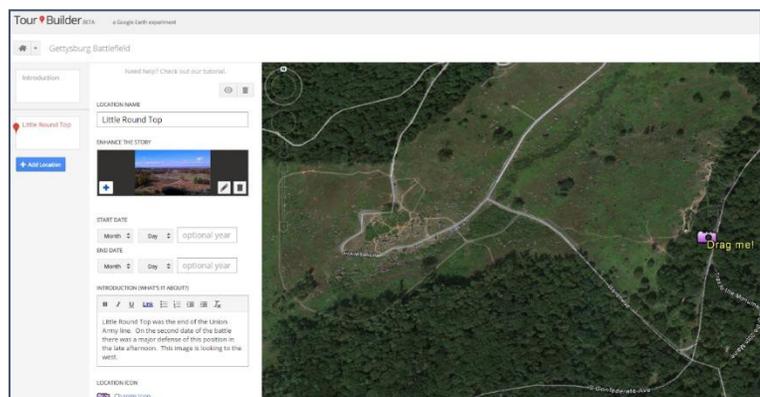
Figure 6: Results

A story map about local art is available at: https://tourbuilder.withgoogle.com/builder#play/ahJzfmd3ZWItdG91cmJ1aWxkZXJyEQsSBFRvdXIYgICAgsHBqwoM

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- Provide the URL of a Google Tour Builder story map to the instructor.

Creating Story Maps in Knight Lab

1. Knight Lab is a project that was developed at Northwestern University. To connect to the story mapping components follow this URL: http://storymap.knightlab.com/

2. Login to Knight Lab with a Google account, this can be the same account used with the Google Tour Builder.

3. This story map gives greater latitudes of control than Google Tour Builder, but has other limitations.

   - The story map developed in Knight Lab can be embedded in a web page, which a useful function.

   - Some code editing is possible, but is beyond the scope of this introduction.

   - Only one image for each geographical location is allowed, which is very different from what can be done in the Google Tour Builder.

   - The basemap in Knight Lab is OpenStreetMap, which allows the designer the ability to make modifications to the basemap (see lesson OpenStreetMap).

4. The story map used in this example is based on the same subject content as the one shown in Google Tour Builder. By using the same theme, the designer will explore the similarities and the differences. http://s3.amazonaws.com/uploads.knightlab.com/storymapjs/77963bba31bfa8daa32a499 99a81547f/jeffersonville-art-and-architecture/index.html

5. To begin the creation of a story map in Knight Lab select new and provide a title, etc.

- Zoom the map to a location that will contain all of the contents of the story map. See Figure 7.

- Provide a Headline,

- Locate the initial image

- Provide photographic credits

- Provide a discussion of the subject of the story map.

- Then click add a new slide.
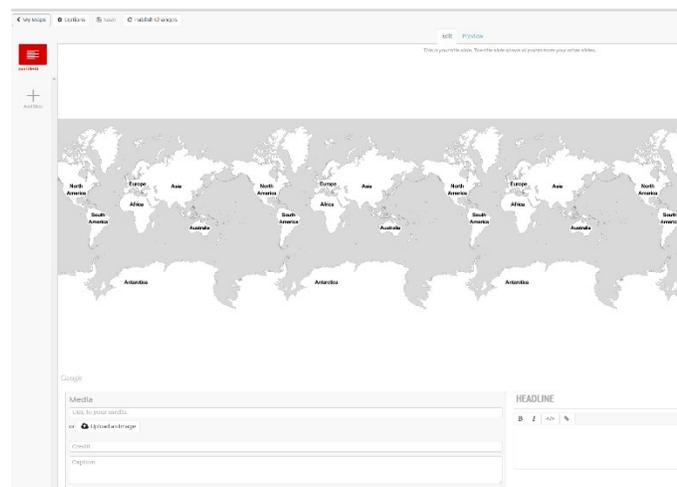
Figure 7: Initial Zoom Level

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6. The process for each image and description is similar to the way in which the introduction slide was created.

7. Manually zoom to the geographic location for each page/image.

8. The user has no control over the icons used on the map. Slides can be moved around in the project. Therefore, the final sequence does not need to be established in the original project design.

9. Preview the story map as it is created.

10. The link to the example story map in Knight Lab:

http://s3.amazonaws.com/uploads.knightlab.com/storymapjs/77963bba31bfa8daa32a499 99a81547f/gettysburg/index.html

Assignment 2: Knight Lab
- Provide the URL to your instructor for a story map created using Knight Lab.

Other Open Source Story Maps
- A good source of information on other story map programs is: http://schoolofdata.org/2014/08/25/seven-ways-to-create-a-storymap/. Some other story map programs are:

    - Odyssey.js

    - TimeMapper

    - Waypoints.js

    - Playback

Esri Story Maps
1. Esri is one of the leading mapping companies; they have made several different templates for creating story maps. Most of what is created in Esri Story Maps utilizes their ArcGIS Online (AGO) products. An account is required to run AGO, which can be obtained from the class instructor, also trial accounts can be created at no charge.

2. Some of the templates will run directly in AGO, while others will need to be loaded on a webserver. The webserver can be the server used for ArcGIS Server lessons. Predefined templates will be the focus of this lesson.

3. http://storymaps.arcgis.com/en/app-list/ this site gives the user the ability to download different template types.

4. The links below were created by the author for the learner to explore different types of story maps.

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- https://kctcs.maps.arcgis.com/apps/MapTour/index.html?appid=210c278d47fc4680ac8c1c6f5d8cd67c

- http://kctcs.maps.arcgis.com/apps/MapJournal/?appid=75314b7065f74bf5bfdf83b7069d90e7 Jeffersonville Art Story Map.

- http://bit.ly/SnjMpk

- http://bit.ly/1rCaVAb

- http://216.69.2.43/countdown/countdown-storytelling-template-js-master/

5. The type of story map to be created will be a map tour and is similar to the Google Tour Builder.

6. Goto: http://storymaps.arcgis.com/en/app-list and open the template for a Map Tour. To use this template an AGO account is required.

7. The first screen asks how to locate images and video. The images must be online; they cannot be on a local computer drive.

8. Since Esri requires that all images be online, there are several choices for Map Tour to access the images. It is recommended that the images be placed in Flickr (this is a product of Yahoo and there are free accounts available). For this example, if the images are coming from Flickr, click on the icon, and log into your Flickr account, only the first 99 pictures in an album can be used.

9. If the pictures have been georeferenced, the software will position the images automatically on a map. Those not georeferenced will need to be positioned manually. Unfortunately, the application does not read the geotag in the image metadata (EXIF), which contains location information.

10. This example uses the folder Jeffersonville.

- The first step is to remove the images that are not needed in the story map.

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- Click the organize button to open a new window (located near the center bottom), to remove the images. Click on the image and press delete.

11. After organizing the images, select the first location for the introduction. After organizing the initial images on the map, it was decided that additional images were required. They were imported from Flickr, by clicking the import button. Be careful not to import objects that have already been deleted.

12. Manually position images that are not georeferenced. See Figure 8

13. Save the Story Map so not to lose your work.

14. On the lower left corner is a button labeled Intro, this is the first page of Story Map. Describe the purpose of the tour and make sure the pictures are labeled with names and not just a camera number.

15. Click on the first image. Edit each picture the same way, see Figure 9.

16. On the upper left, write a description of the tour making sure the name is appropriate.

17. Click the Share Button, share publicly or just within your organization.

18. This example story map is not a finished product, but is just a demonstration; there are additional parameters that can be controlled.

19. The demonstration URL is http://arcg.is/1bxJ5hS

Figure 8: Getting Started
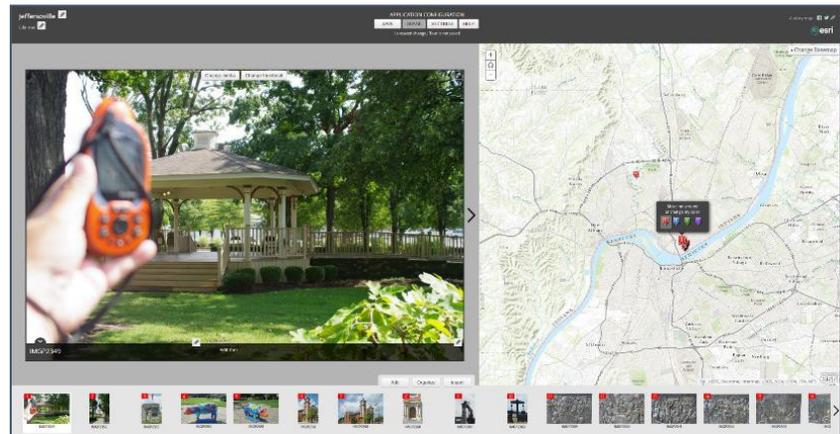
Figure 9: Picture Selection

Assignment 11: Esri Tour Builder

Provide your instructor with the URL of a story map created using Esri Story Map Tour. The story map should demonstrate knowledge of the software. It is not expected to be a complete story map and can similar to the same story as was shown in assignments 1 & 2.

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Final Assessment

Create two types of story maps, the two story maps must be created in two different software programs. One of the story maps should be a tour like the examples. The other story map type will be one selected by the learner on a topic of interest it **cannot** be another tour. The two maps can be created in the software demonstrated in this lesson or can be in any other story map software. Provide your instructor with the URL for each story map.

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Rubric for Sanborn Mapping Project

Required to be turned in:

1. Map Package
2. A written Assessment of what was done and the methods used.
3. A classified map of the area selected.

Required Elements

40 Points

1. Must be of the same region as Aerial Image
2. E-mail showing instructor approval of the region
3. Maps must contain:
    a. Title
    b. Legend
    c. Directional Arrow
    d. Scale Bar
    e. Author Block
4. Appropriate Symbology must be displayed

Placement and Symbolism of the Required Elements

20 Points

1. Appropriate classification
2. Appropriate labels

Required Technical Skills Demonstrated

20 Points

1. Creation of Map Package
2. Appropriate and accurate Georeferencing
3. Use of Snapping

Creativity

20 Points

Creativity will include what is presented and how appealing it is to the user. Half of these points will be based on how well the designer accomplished the completion of the problem. The other half of the points in this section will be to the functionality and appeal of the maps. The instructor can choose to award more than 20 points to maps that far exceed the requirements.

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