

Communicating with Story Maps

Joseph Kerski, PhD GISP <u>jkerski@esri.com</u>

Twitter: http://josephkerski.com/twitter

YouTube: http://www.youtube.com/geographyuberalles

Story Maps: Multimedia Map Based

Communication Tools

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Introduction and story map concepts

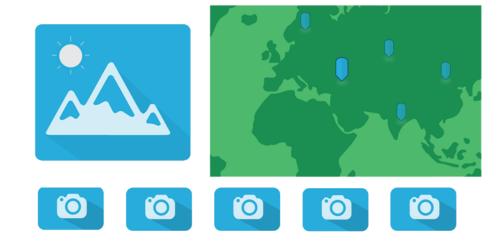
It's the story...

What are Story Maps?

Story Maps are simple web apps that combine interactive maps,



Story Maps are simple web apps that combine interactive maps, multimedia content,



Story Maps are simple web apps that combine interactive maps, multimedia content, and user experiences



Story Maps are simple web apps that combine interactive maps, multimedia content, and user experiences to tell stories about the world.



Story Maps are hosted by Esri in the cloud. (But you can opt to host them yourself.)



Story Maps incorporate builder functions that enable you to build a sophisticated story with no GIS or web development skills.



Story Maps work equally well on PCs, laptops, tablets, and smartphones.



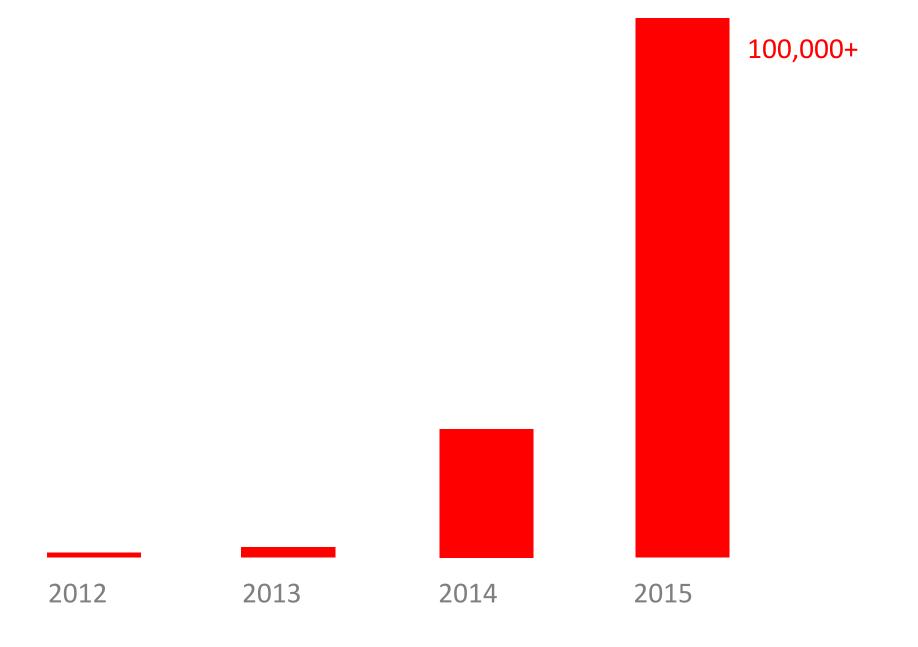
Story Maps are open source. You're free to download and customize them.



Story Maps include an array of apps that provide different ways of interacting with maps.



Number of story maps created



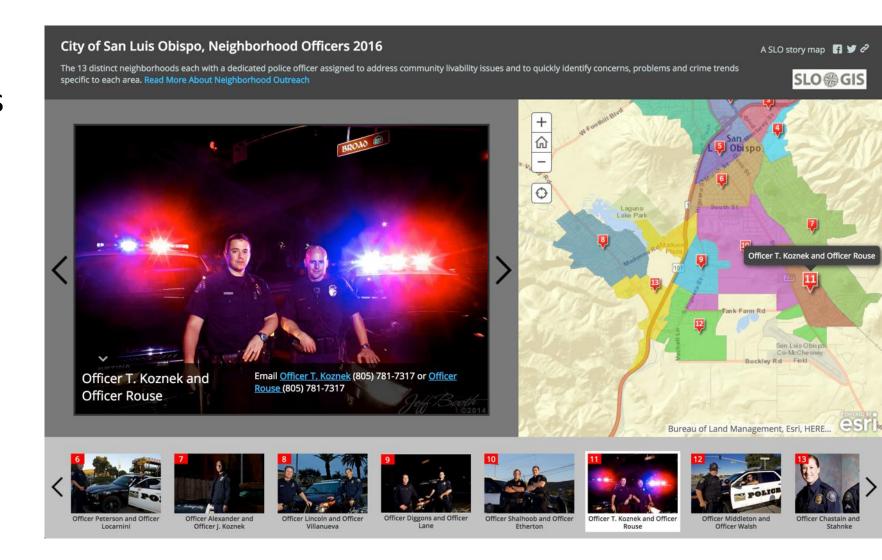
Why story maps?

 One of the huge advantages of Story Maps is the low entry barrier. You don't need to be a GIS specialist or a web developer to create a Story Map.

Maps Mania Blog

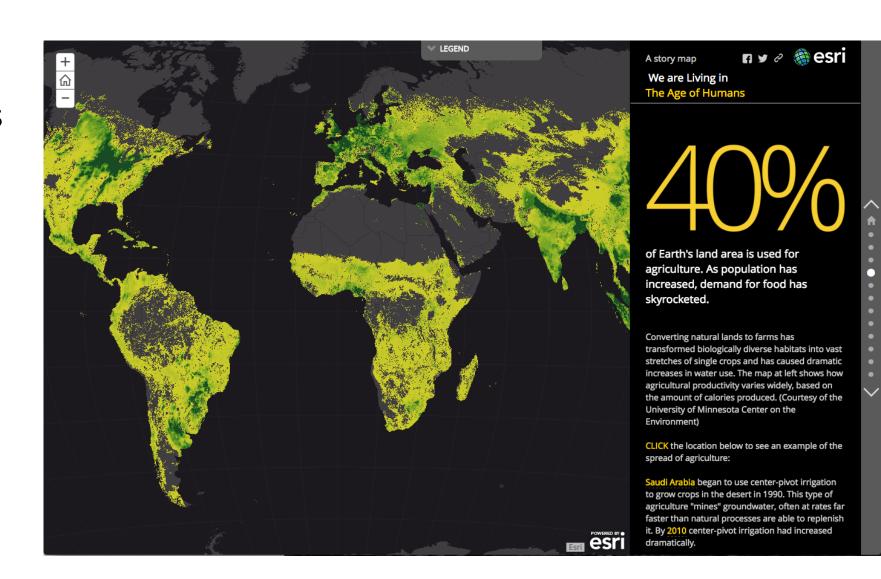
Sequential narratives

- Story Map Tour
- Story Map Journal



Sequential narratives

- Story Map Tour
- Story Map Journal

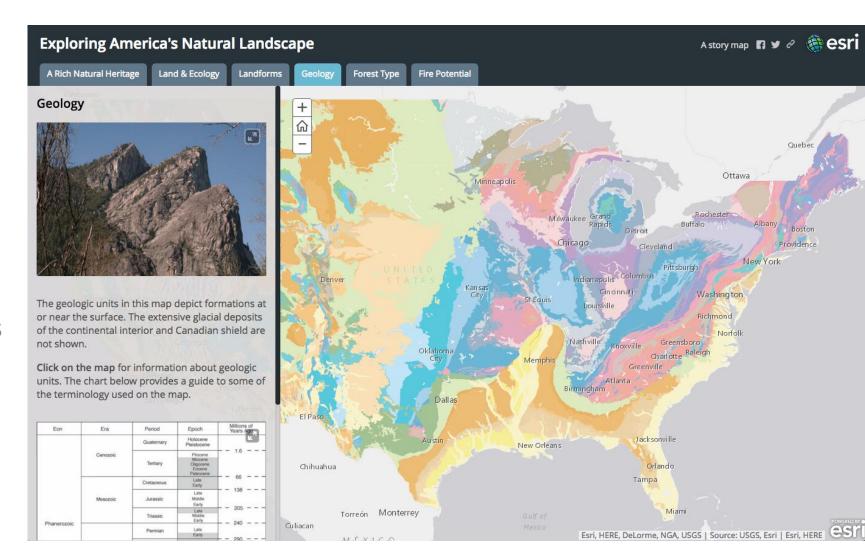


Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

- Story Map Series
- Story Map Swipe/Spyglass

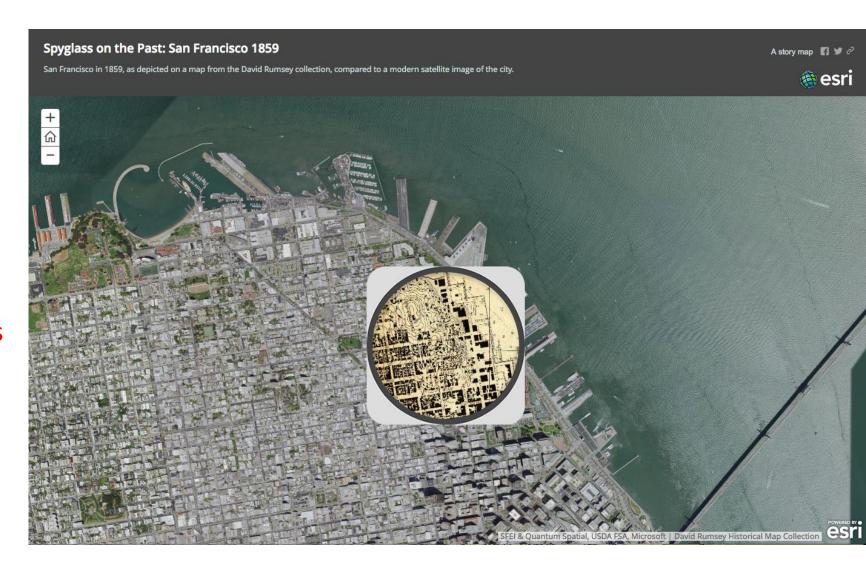


Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

- Story Map Series
- Story Map Swipe/Spyglass



Sequential narratives

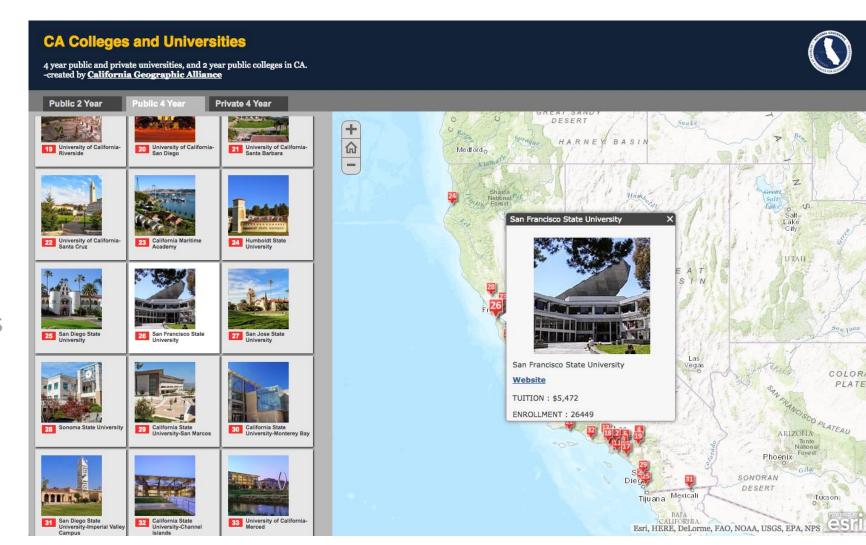
- Story Map Tour
- Story Map Journal

Comparing maps

- Story Map Series
- Story Map Swipe/Spyglass

Points of Interest

Story Map Shortlist



Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

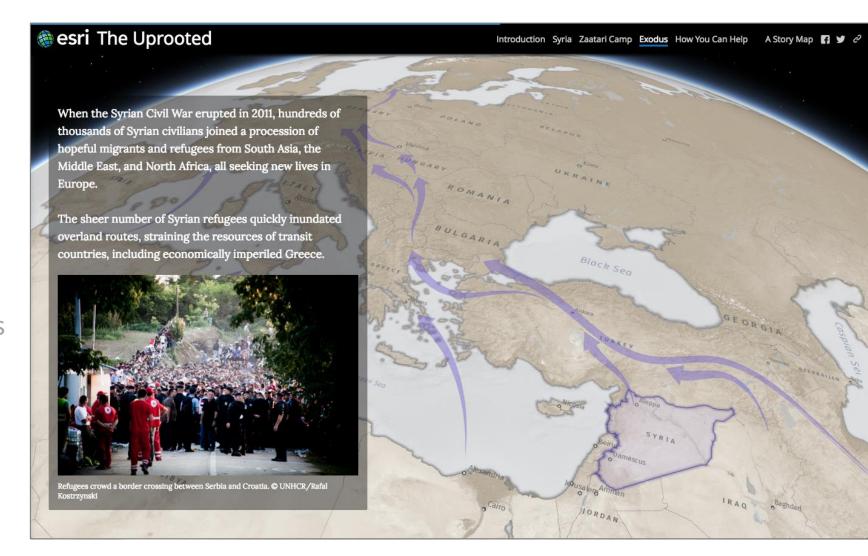
- Story Map Series
- Story Map Swipe/Spyglass

Points of Interest

Story Map Shortlist

Just arrived!

• Cascade, Crowdsource



Sequential narratives

- Story Map Tour
- Story Map Journal

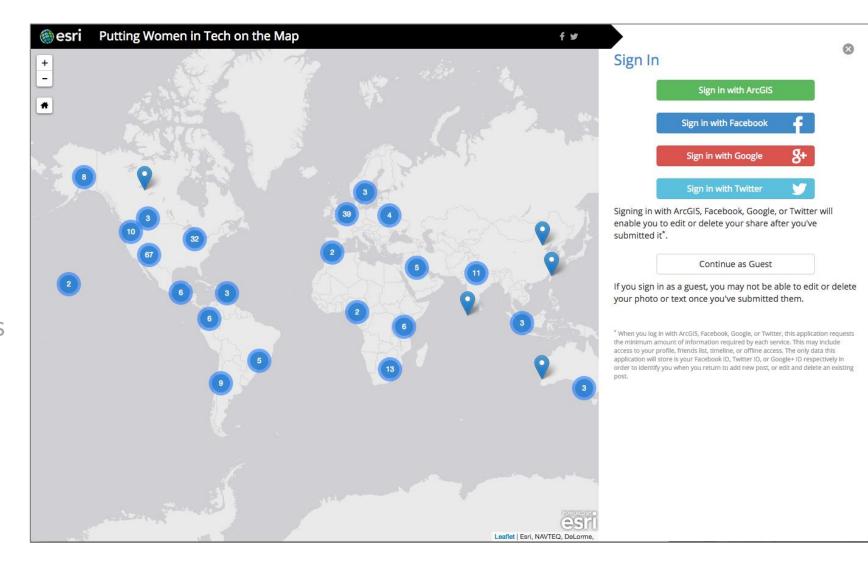
Comparing maps

- Story Map Series
- Story Map Swipe/Spyglass

Points of Interest Story Map Shortlist

Just arrived!

• Cascade, Crowdsource



Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Exploring the Story Maps gallery

An online interactive library.

Story Maps Gallery

storymaps.arcgis.com/gallery

Browse by: • App Type

- Subject
- Format
- Author

Activity

Spend 4 minutes to find a story map that is interesting and/or one that you might be able to use in your own instruction or research.

Be prepared to share with the class.

Examples of communicating with maps

Why GIS In Education? Joseph's ArcGIS Online presentation:

http://www.arcgis.com/apps/presentation/index.html?webmap=6e06d858c1ea4888859c03494c9df6ad

Converging Forces in GIS In Education: Joseph's Story Map:

http://denverro.maps.arcgis.com/apps/MapJournal/?appid=b55fb50a2cef41b8908baa4c376088b8

Presentation or Story Map? Each has advantages.

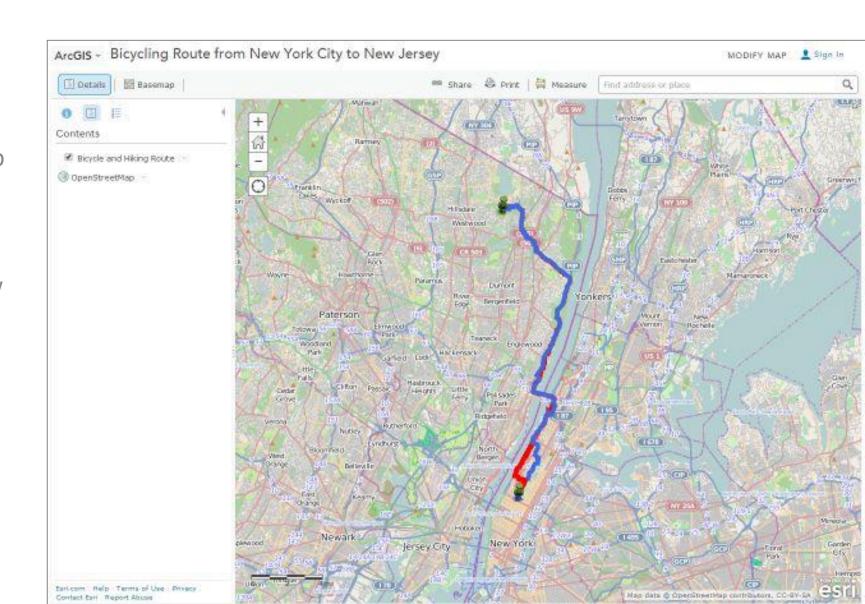
Advantages of story maps in education and beyond.

- Engaging, rich way to teach content
- Foster tech skills: GIS, multimedia, data.
- Foster critical and spatial thinking
- Foster skills in organization and permissions
- Provide good ways to assess student or colleagues' work.
- Support research and communications

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.

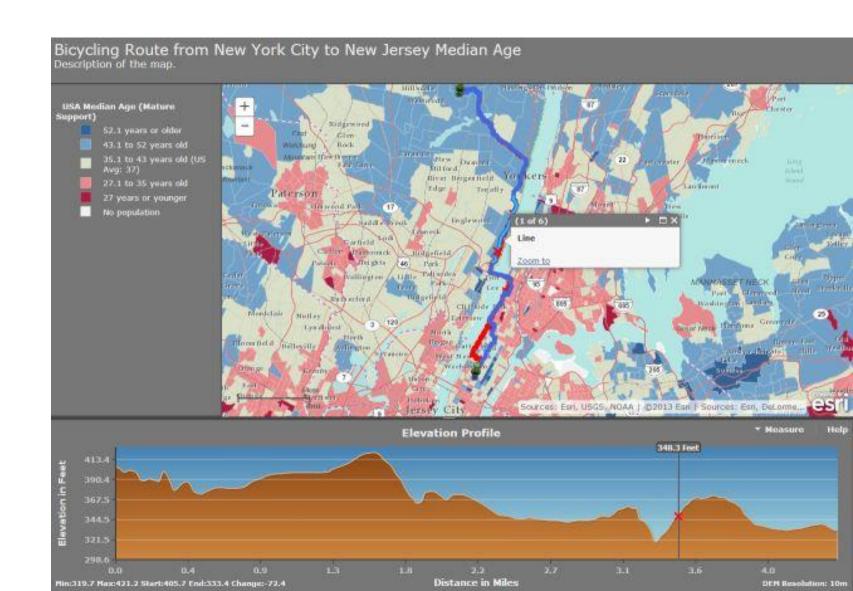
At right is a <u>web map</u> for a bicycling route I took from New York City to New Jersey following the AAG annual meeting.



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.

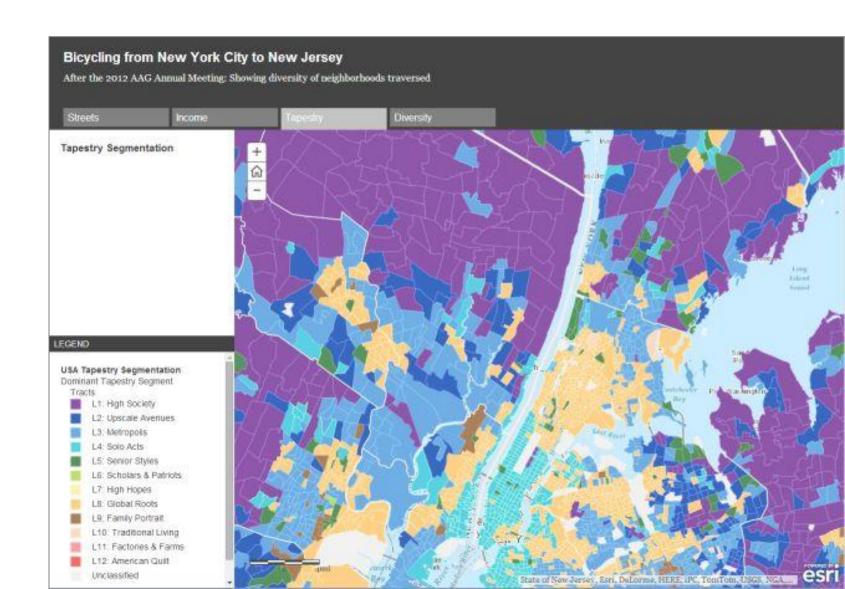
At right is a web mapping application for the same bicycling route I took from New York City to New Jersey.



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 <u>story map</u>
<u>application</u> for the same
bicycling route I took from New
York City to New Jersey.



Selected examples: Story Maps for education

BioBlitz 2015 Hawai'i Volcanoes:

http://story.maps.arcgis.com/apps/MapJournal/?appid=45867f2ae46e4587afb8e7c7b343b9b8

Anchorage Urban Bears

http://www.adfg.alaska.gov/index.cfm%3Fadfg%3Dlivingwithbears.anchorageurbanbearsstorymap

Lakota Language Story Map:

http://denverro.maps.arcgis.com/apps/MapTour/?appid=60ac74d36ae34ce181e88fbeeeb56831

Esri Young Scholars:

http://denverro.maps.arcgis.com/apps/MapTour/index.html?appid=a383612f79354488929beabcd266cd77

International Perspectives on Teaching and Learning with GIS in Secondary Schools: http://denverro.maps.arcgis.com/apps/MapTour/?appid=5f86647b1e8e491aadaece6345927f2a

Atlas for a Changing Planet:

http://storymaps.esri.com/stories/2015/atlas-for-a-changing-planet/

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES for creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Selected clues for making Great Story Maps

Thanks to my colleague Allen Carroll for the CLUES structure.

Connect with your audience

Lure people in

User experience supports the story

Easy-to-read maps

Strive for simplicity

CLUES Connect with your audience



Think of your mom

Step back and explain things

Avoid using jargon

Be informal but respectful

CLUES Lure people in



esri

A story map f 💆 2

On the Brink: The Sixth Great Extinction

Five mass extinctions, all of them brought about by natural cataclysms, have occurred during Earth's four-and-a-half billion year history.

We're now witnessing a sixth extinction, this one due to the impact of a single, dominant species: humans. The animals and plants shown here are a sampling of the thousands across the globe that have either been lost, imperiled, or, in a few cases, brought back from the brink of oblivion by urgent conservation efforts.

BY THE ESRI STORY MAPS TEAM

Start your story with a bang

Use titles that are active, descriptive

CLUES

User experience supports the story

Maps serve lots of purposes...

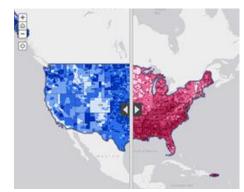
Locate



Navigate



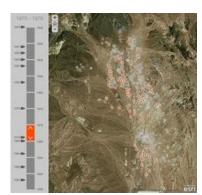
Compare



Narrate



Show change

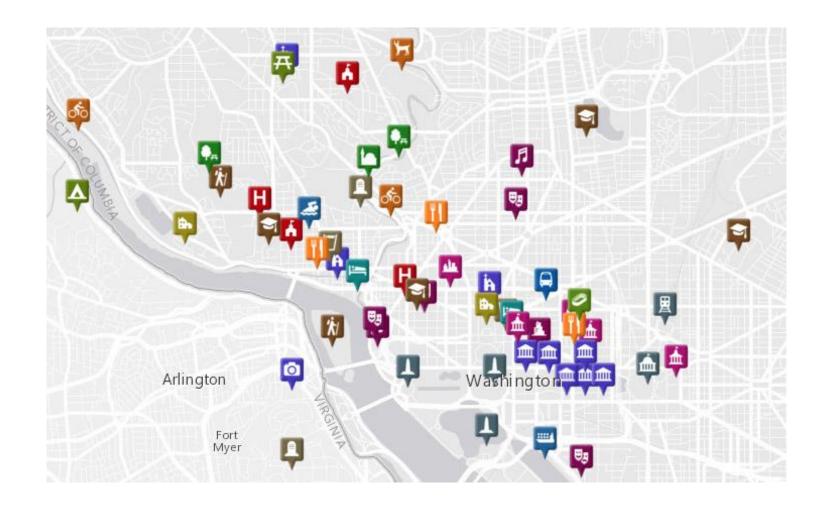


Choose the app that matches your intentions.

You cannot change the application type midway through the workflow, so plan ahead.

CLUES Easy-toread maps

Base map as context—not competition



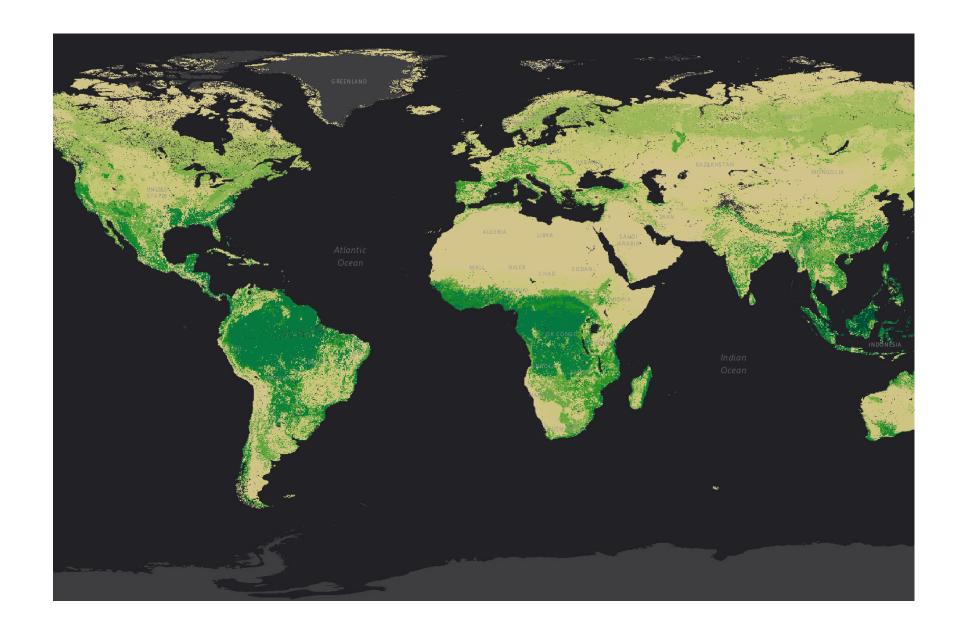
CLUES Easy-toread maps



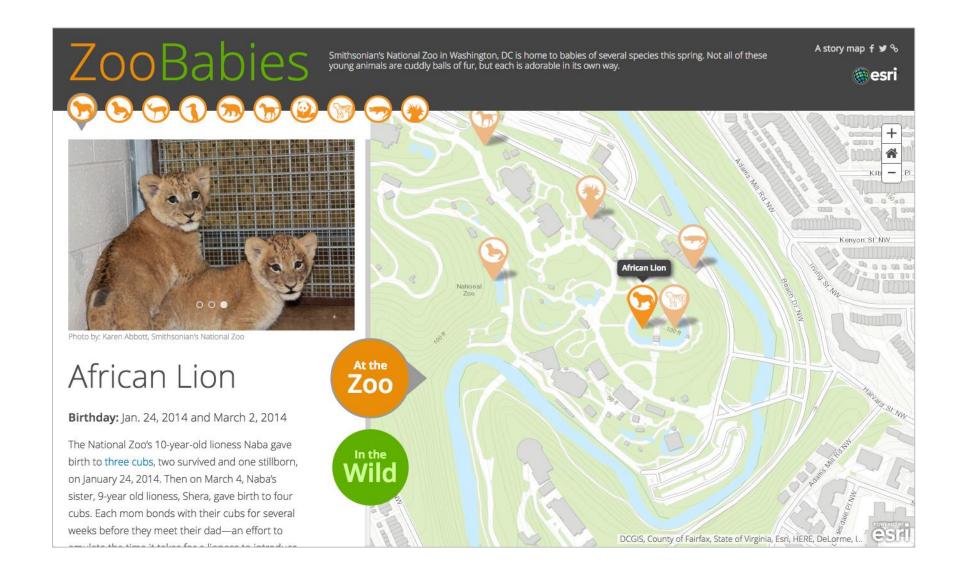
Avoid visually complex symbols and icons

CLUES Easy-toread maps

A map for storytelling is very different from a map for analysis



CLUES Strive for simplicity



CLUES
Strive for simplicity
...and
brevity

Edit! Shorten! Reduce! Distill! Simplify!

Digital media = ADHD media



"Not that the story need be long, but it will take a long while to make it short."

— Henry David Thoreau, Letters to Various Persons

"If I would have had more time, I would have written you a shorter letter."

— Mark Twain

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Selected technical advice

Examine the following maps:

University of Nevada Reno Walker Basin's Climate:

https://dlm.maps.arcgis.com/apps/MapJournal/index.html?appid =d01e89bbfd954115a7831d59ba1619db

Cayuga Lake Osprey Trail:

http://fllt.maps.arcgis.com/apps/MapJournal/index.html?appid=d d094a9feef9459c87504142f5c607d3

Items of Note

1. Neither of these stories tells the reader where these places are located (state, region). The Walker Basin story has an overview map which sort of works if you can tell from the shape that it is Nevada and if you scroll down to it.

Perhaps these storymaps were created to be linked to from a web page about that place, or as part of study where the place location is established. But think about this as you create your maps.

2. Authors are often replacing the generic 'A Story Map' text in the header of their Story Map Journal with the title of their story. It doesn't look bad when you first open the Map Journal:

Walker Basin's Climate: Past, Present and Future



Walker Basin's Climate: Past, Present and Future

This clutters the header once users have started to progress through the story:

Don't modify 'A Story Map' text in the header, because it links through to the Story Maps website and is good for promoting your map. Walker Basin's Climate: Past, Present and Future

Walker Basin's Climate: Past, Present and Future

3. Pay attention to image size! Authors are using huge images in their stories which slow down the load time. Examples: Picture of the osprey in the home section takes ages to load; so does the home image in Walker Basin. Flickr, Twitter, FB, etc. you can upload any image and those systems handle and optimize them.

Currently if you specify their image via a direct URL, such as https://s3.amazonaws.com/ospreytrail/COVER2fishing+os+blodgett.jpg for the opening osprey pic, it will be used as-is, and thus will be slow to load.

Storymaps may be able to support automatic compression on the fly in the future in ArcGIS Online. For best results, place images into Flickr, and then add them into their story maps via Flickr. For example if that is done with the Osprey picture it improves the load time, and automatically gives a much smaller image size that still looks good if the end-user clicks the button to expand the image.

- 4. Curation for your site: Check URLs, images, and so on: Use the "My Stories" zone!
- 5. Use folders in ArcGIS Online and in multimedia web sites to keep things organized.
- 6. Keep TABS on TABS in your web browser, including (1) in which tabs you are logged in, and (2) careful use of the "Back" button.

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Building a story map from a web map

Types of Story Maps

- Story Map Tour
- Story Map Journal
- Story Map Shortlist
- Story Map Playlist
- Story Map Basic
- Story Map Series Tabbed, Side Accordion, Bulleted
- Story Map Swipe and Spyglass
- Custom









Two 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!

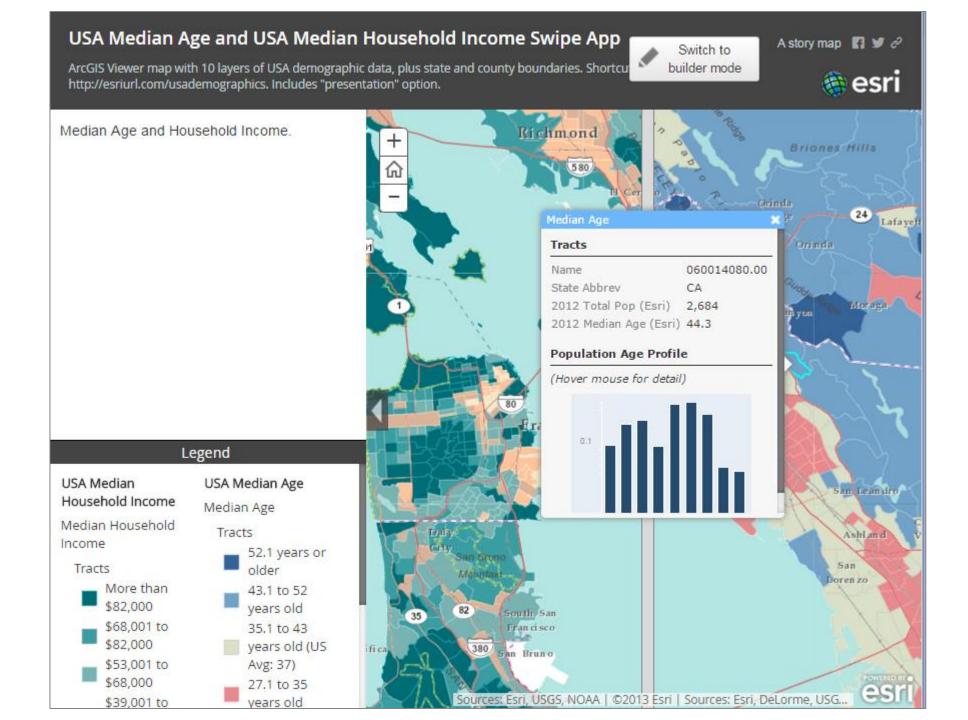
Three key points about Story Maps

- 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.

Activity: Build a Story Map Swipe

- Go to <u>www.arcgis.com</u>. Sign in. Under My Content, create a folder for this workshop named StoryMapsWorkshop.
- 2. Search for Map: USA Demographics for schools v2 > Open it > Use "Find Address or Place" to zoom to your city of interest in the USA.
- 3. Use Table of Contents and Turn on 2 Layers: USA Median Age & USA Median Household Income.
- 4. Save Map As > Median Age and Household Income in your workshop folder.
- 5. Share > Everyone > Create a Web App > Configurable Apps > Build a Story Map > Story Map Swipe and Spyglass > Create App > Title: Median Age and Household Income Swipe App > Done > Vertical Bar > Layer to swipe: USA Median Age > Next > Popups: Left Map Title: Median Household Income. Right Map Title: Median Age > Open the app > Done!
- 6. Add explanatory notes, test slider bar and popups. Save and Share.
- 7. Close tab. Go to My Content. Observe map and app. Open App and test again.

Your Story
Map Swipe
should look
Similar to this.



Activity: Build a Presentation from a Web Map

- 1. Open your Median Age web map.
- 2. Create a presentation from the web map with at least 3 slides representing different areas or popups or basemaps.
- 3. Test your presentation.
- 4. Examine how the presentation is stored in ArcGIS Online.

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Building a Story Map Tour

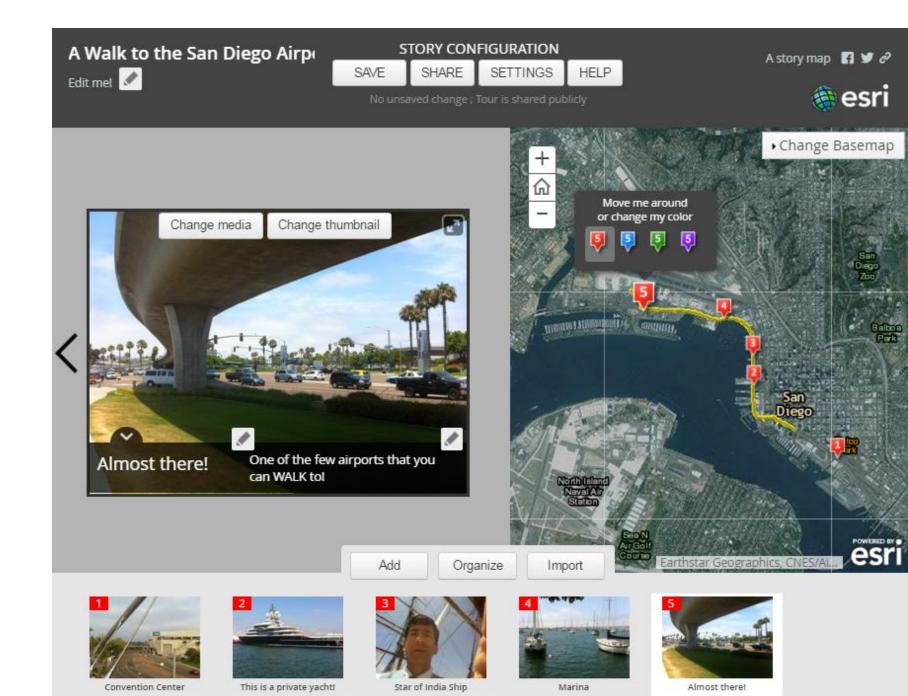
Activity: Build a Story Map Tour – 1 of 2

- 1. Go to http://storymaps.arcgis.com. Go to Apps > Create Story > Choose Map Tour.
- 2. Where are your images? Choose Picasa/Google Plus > Enter <u>jkerski@esri.com</u>
 Look Up > Select Public Album > (halfway down) A Walk to the San Diego
 Airport Geotagged > Import > Observe Your Story Map!
- 3. Edit Captions, Organize (photo order), Change Basemap to Imagery with Labels > Save. Share with everyone.

Activity: Build a Story Map Tour – 2 of 2

- 4. Change 1 image to video: Go to "Joseph at historical sailing ship" photo > Change media > Video > URL: Go to www.youtube.com/geographyuberalles > search channel for video Star of India > Open the first Star of India video > Share > Embed > copy and paste the embed code https://www.youtube.com/embed/IIGSCmeDJao into the URL > Apply; test it.
- 5. Add GPS track to map: First, access and save GPX track to local computer: http://www.josephkerski.com/data/RK gpx 2013-07-12 1146.gpx. Go to http://storymaps.arcgis.com > My Stories > Find "A Walk to the San Diego Airport Geotagged > Maps > Edit Map > Add > Add Layer from File > Add GPX local file > Trackpoints - Change Style to Yellow 8 pt, Track line - Change Style to Yellow. > Save Map.
- 6. Go Back to My Stories > Open Story Map. Make sure that the GPX track appears.
- 7. Go Back to My Content > Move Story Map Tour Map and App to your Workshop folder.

Your Story Map Tour should look similar to this.



Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Building a Story Map Journal

Activity: Build a Story Map Journal – 1 of 4

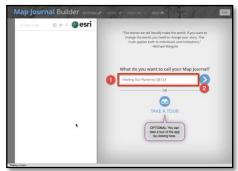
- 1. Go to http://storymaps.arcgis.com. At the top of the page click Apps
- 2. Find Story Map Journal, click BUILD
- 3. Choose layout > Side Panel > Start
- 4. Enter a title: Feeding the Planet by XXX
- 5. Main Stage Content: Click Image > Flickr
- 6. Type in user name "mapjournal"
- 7. Click Load albums
- 8. Click album Workshop (10) (60% of way down) > Choose a photo you like!



1, 2



3



_



Activity: Build a Story Map Journal – 2 of 4

Add Home Section

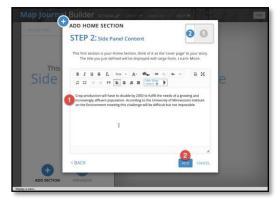
- 9. Confirm **Fill** is checked > click **Next**
- 10. Add text (make it up!) into the text block
- 11. Click Add > Home section is done!

Add Section

- 12. Click Add Section > Enter title Current Crop Yields
- 13. Content: Click Map
- 14. Click Select a web map then Select a map



9





10 - 11



12 - 14

Activity: Build a Story Map Journal – 3 of 4

Section: Select a web map

- 15. Search for "StoryMapWorkshop" (no spaces) on ArcGIS Online > click thumbnail for Feeding the World Storymaps > Next.
- 16. Next to content, click **Custom Configuration** > Click boxes next to layers:

Current crop yield notes, Current crop yields, Elevation hillshade

- 17. Click Save Map Content > Next
- 18. Add text, and click the **camera icon** to add a photo from Flickr or elsewhere, such as this URL: http://confluence.org/us/ks/n40w100v2/thumb1.jpg



15



16

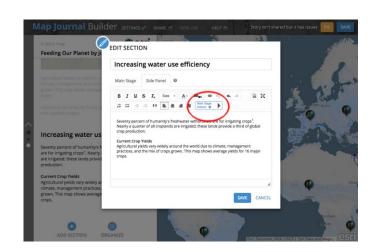


Activity: Build a Story Map Journal – 4 of 4

Those are the basics!

Try these yourself:

- Adding more sections
- Putting photos, videos, maps, websites or other story maps on the main page
- Adding photos, videos to the side panel
- Using "Main Stage Actions" to do cool things within a section
- Use the "Settings" function to customize your story



Main Stage Actions

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Building a side accordion story map

Activity: Building a Side Accordion Story Map

- 1. Go to http://storymaps.arcgis.com. At the top of the page click Apps
- 2. Select Create Story > Series > Side Accordion > Start
- 3. Enter a title: Boots of Wimberley Texas
- 4. Photos are on Picasaweb > <u>jkerski@esri.com</u> > Famous Boots of Wimberley TX.
- 5. Videos are on www.youtube.com/geographyuberalles > Search on Wimberley > Cowboy Boots and Hill Country. Save.
- 6. GPX file is on: http://www.josephkerski.com/resources/teaching/ search for Wimberley. Save file > Upload file to web map.
- 7. Change 1 caption to include a yellow hyperlink to:

 NAME OF WEBPAGE

Your Map should look similar to this.

Cowboy Boots of Wimberley

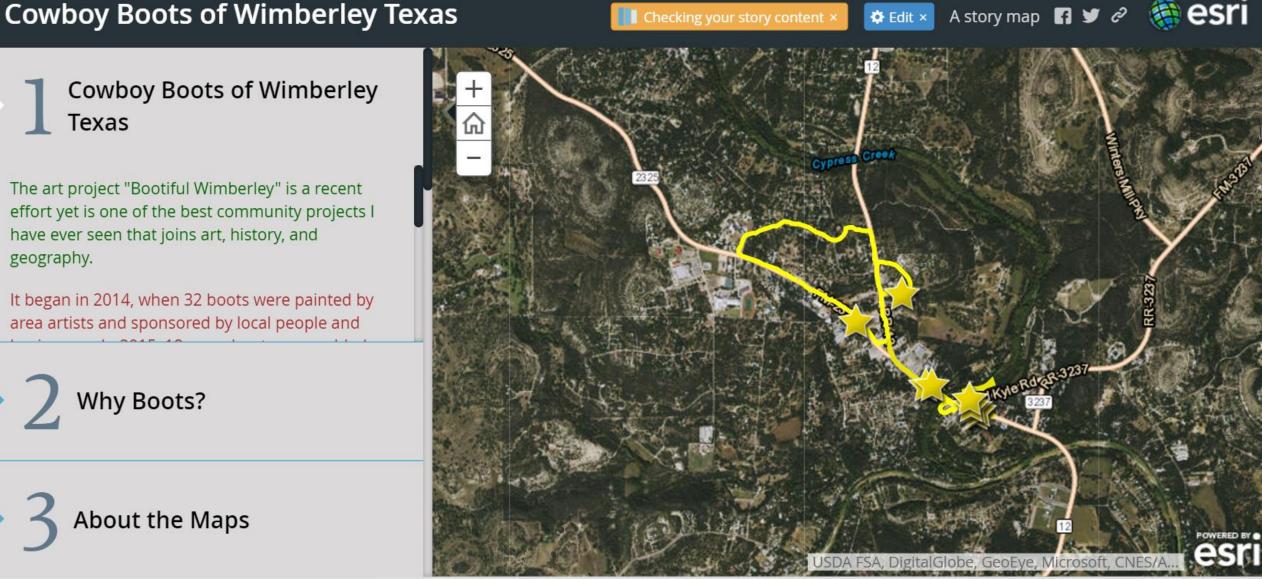
The art project "Bootiful Wimberley" is a recent effort yet is one of the best community projects I have ever seen that joins art, history, and geography.

It began in 2014, when 32 boots were painted by area artists and sponsored by local people and

Why Boots?

Texas

About the Maps



Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Selected CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Building a tabbed story map

Activity: Building a Tabbed Story Map 1 of 2

- 1. In <u>www.arcgis.com</u> (ArcGIS Online), create a web map of the USA Tapestry segmentation.
- 2. In ArcGIS Online, create a web map of the teams that made the championships of the JUCO (Junior College; NJCAA) baseball tournament in 2015 representing Divisions 1, 2, and 3:

http://josephkerski.com/data/mesa county juco div1 teams.txt http://josephkerski.com/data/mesa county juco div2 teams.txt http://josephkerski.com/data/mesa county juco div3 teams.txt

3. Style each of the 3 layers differently.

Activity: Building a Tabbed Story Map 2 of 2

- 4. Go to http://storymaps.arcgis.com. At the top of the page click Apps.
- 5. Select Create Story > Series > Tabbed > Start.
- 6. Add tabs for the Tapestry and for the JUCO teams. Save storymap.
- 7. Add at least 1 link and at least 1 photograph or video to your map.
- 8. Change the logo to a custom logo for NJCAA.
- 9. Change at least 2 of the other settings.
- 10. Save and Share.

Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Some CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Configurable app method

Method 1: Using the Story Map Builders.

This is the method that was used in this activity to this point.

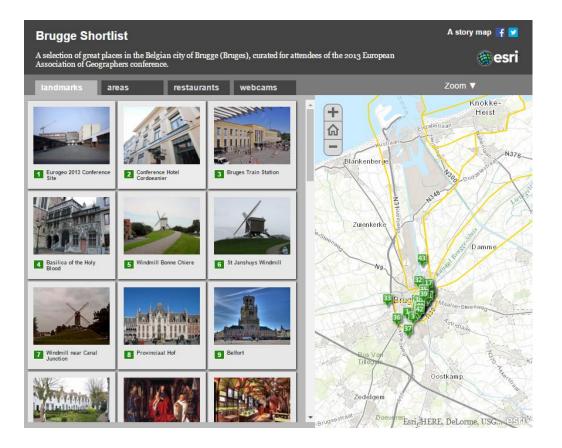
Method 2: Downloadable configurable apps

The configurable apps method allows you to:

- 1. Further customize your story maps.
- 2. Host the story maps on your own website.

Example: Joseph's Brugge, Belgium Shortlist story map:

http://www.josephkerski.com/storymaps/bru
gge shortlist/



Story Maps Workshop Agenda

- 1. Introduction, story map concepts
- 2. Exploring the story maps gallery
- 3. Some CLUES to creating great story maps
- 4. Selected technical advice
- 5. Building a story map from a web map
- 6. Building a story map tour
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
- 10. Configurable App Method
- 11. Discussion

Questions and Discussion

Next Steps

Esri Free Training Seminars:

Telling Your Story with Esri Story Maps
ArcGIS App Strategies
Get Started with Web AppBuilder for ArcGIS

Web Course:

Creating and Sharing GIS Content Using ArcGIS Online

MOOCs:

http://www.esri.com/mooc

Story Maps app contest:

http://www.esri.com/landing-pages/story-maps/contest



Communicating with Story Maps

Joseph Kerski, PhD GISP jkerski@esri.com

Twitter: http://josephkerski.com/twitter

YouTube: http://www.youtube.com/geographyuberalles

Story Maps: Multimedia Map Based

Communication Tools