Telling Your Story with Esri Story Maps: A New Medium for Geography-Based Storytelling

Joseph J. Kerski, PhD, GISP

jkerski@esri.com twitter.com/josephkerski



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 tour
- 6. Building a story map from a web map
- 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...

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

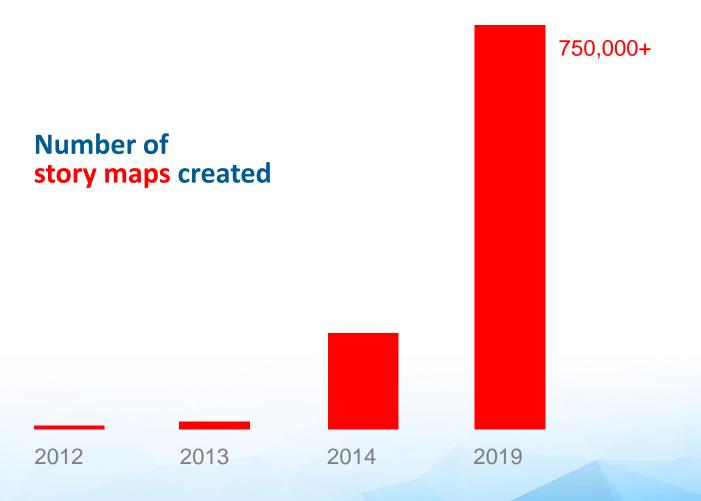


Story Maps work equally well on PCs, laptops, tablets, and smartphones.



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





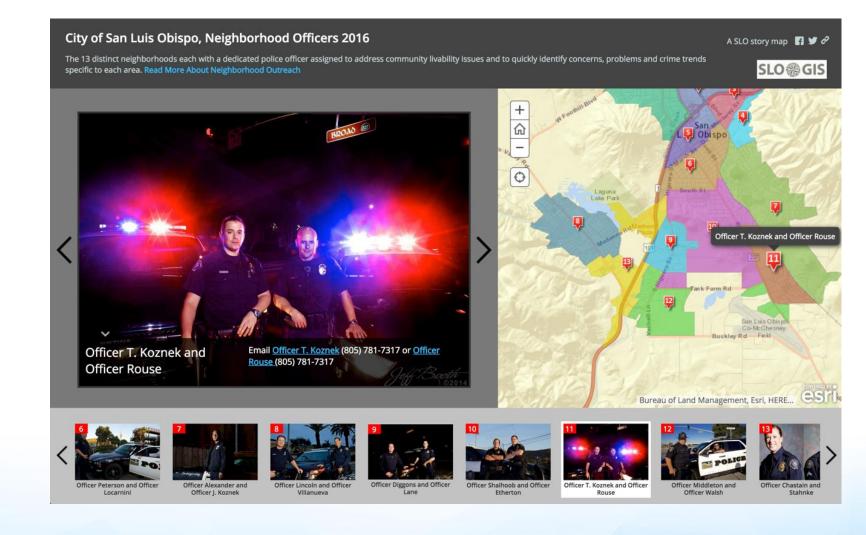
Why story maps?

 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

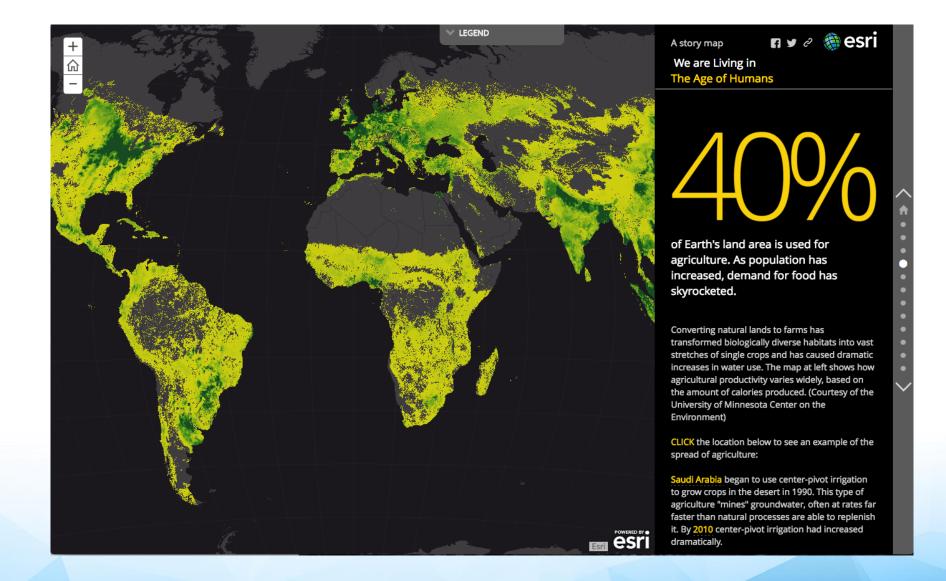
Sequential narratives

- Story Map Tour
- Story Map Journal



Sequential narratives

- Story Map Tour
- Story Map Journal

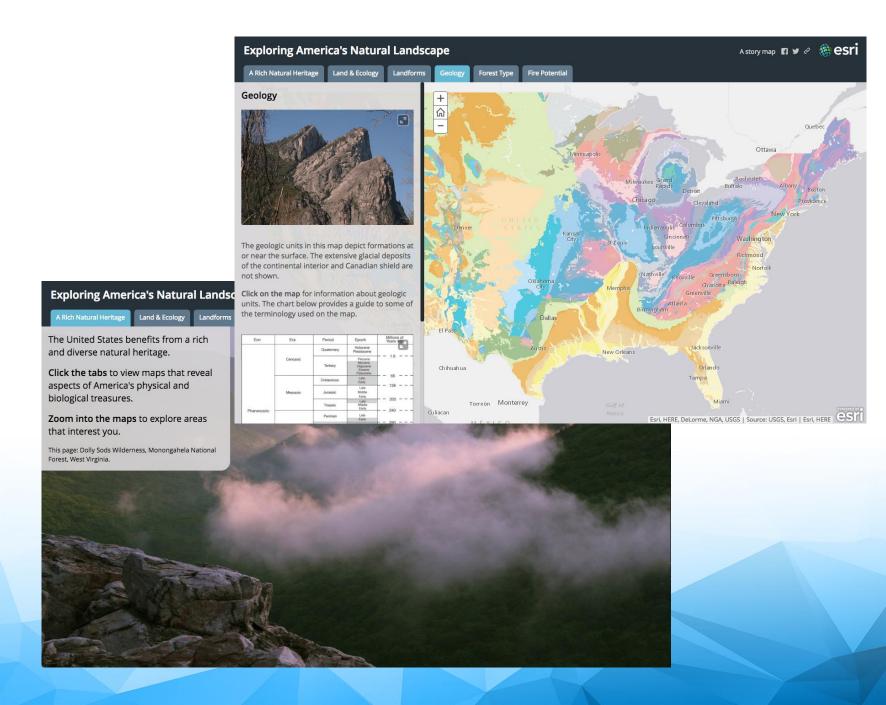


Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

- Story Map Series
- Story Map Swipe/Spyglass

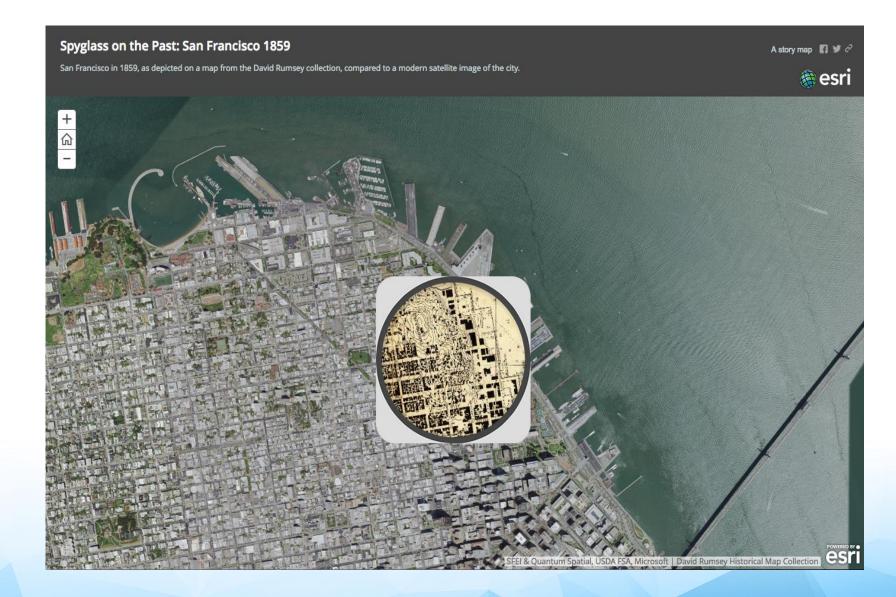


Sequential narratives

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Sequential narratives

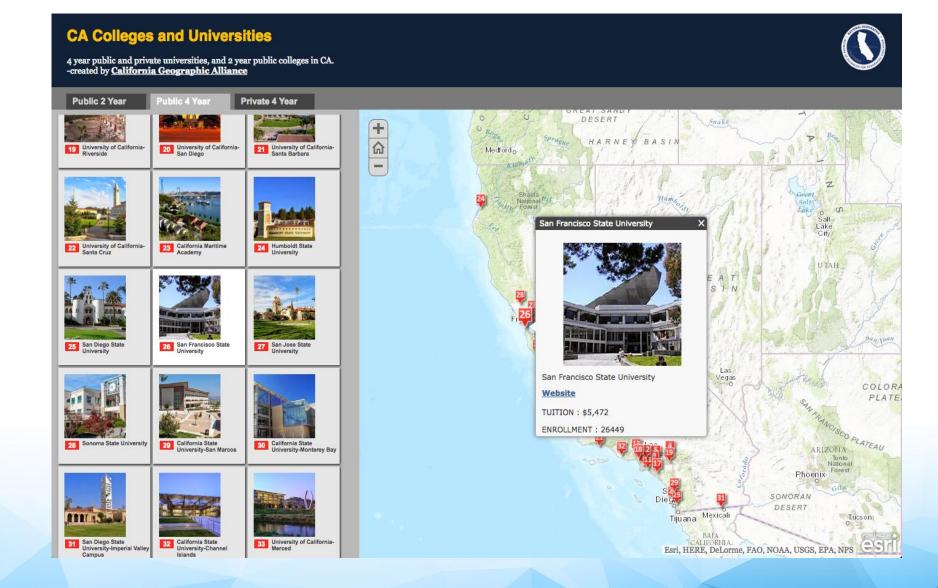
- Story Map Tour
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Comparing maps

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- Story Map Swipe/Spyglass

A list of Points of Interest

Story Map Shortlist



Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

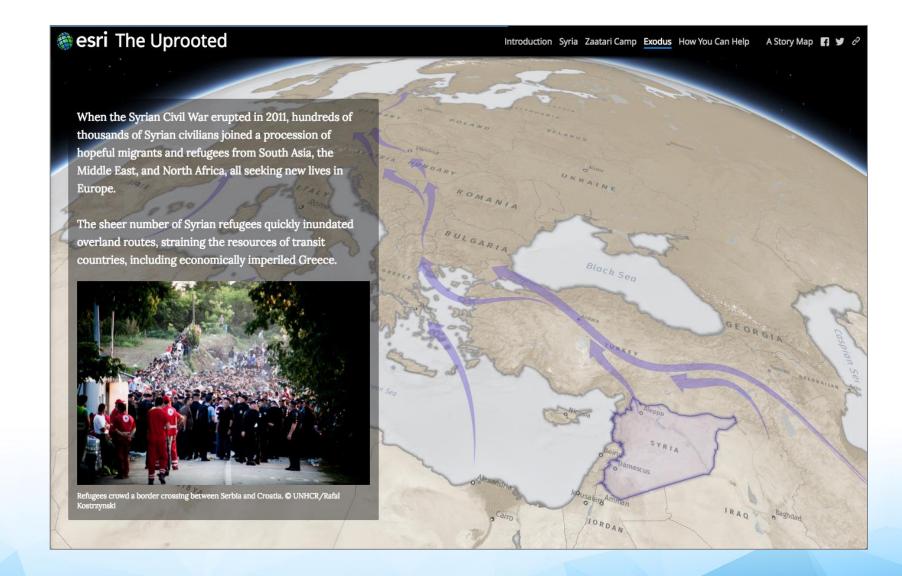
- Story Map Series
- Story Map Swipe/Spyglass

A list of POIs

Story Map Shortlist

There is More!

• Cascade, Crowdsource



Our apps

Sequential narratives

- Story Map Tour
- Story Map Journal

Comparing maps

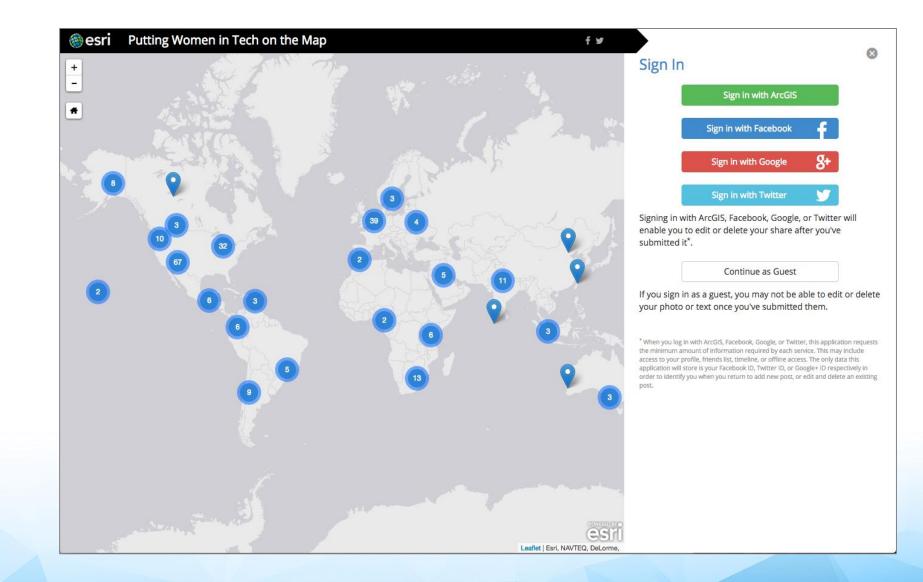
- Story Map Series
- Story Map Swipe/Spyglass

A list of POIs

Story Map Shortlist

There is more!

 Cascade, Crowdsource (for small projects only)



Story Maps Workshop Agenda

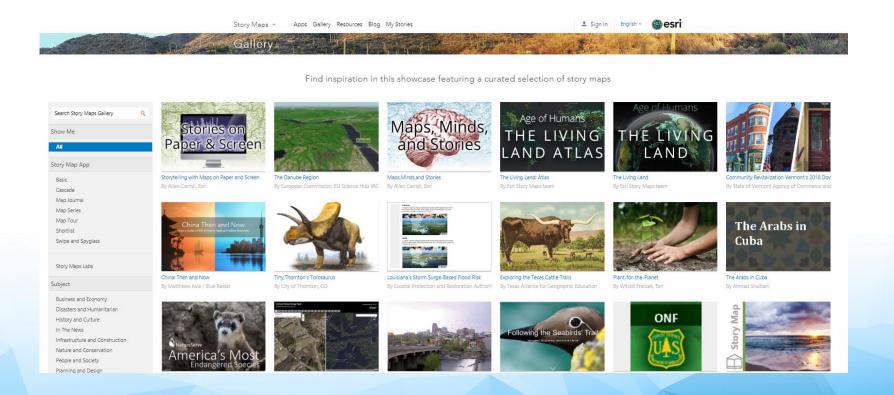
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Story Maps Gallery

storymaps.arcgis.com/gallery

Browse by:

- App
- Subject
- Industry
- Format
- Author



Activity

Spend a few 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.

2 Examples of communicating with maps

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

http://www.arcgis.com/apps/presentation/index.html?webmap=6e06d858c1ea4888859c0
 3494c9df6ad

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

http://denverro.maps.arcgis.com/apps/MapJournal/?appid=b55fb50a2cef41b8908baa4c3
 76088b8

Presentation or Story Map? Each has advantages.

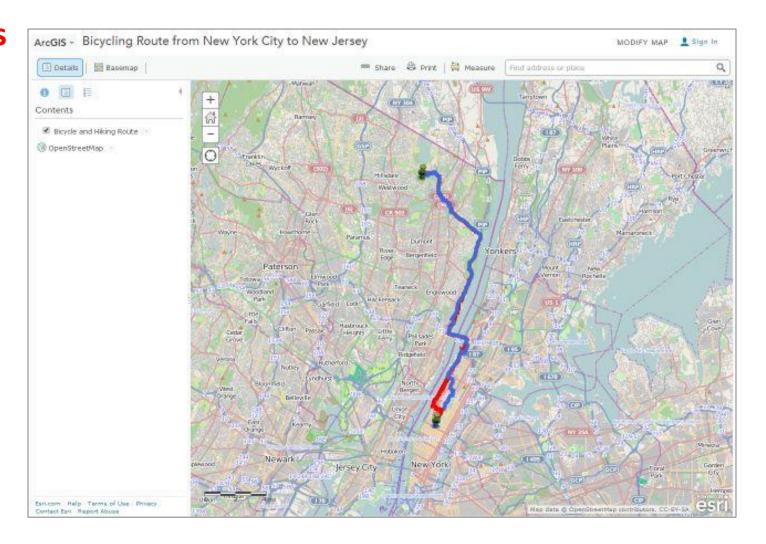
Advantages of story maps in education and beyond.

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

Story maps are a part of ArcGIS Online.

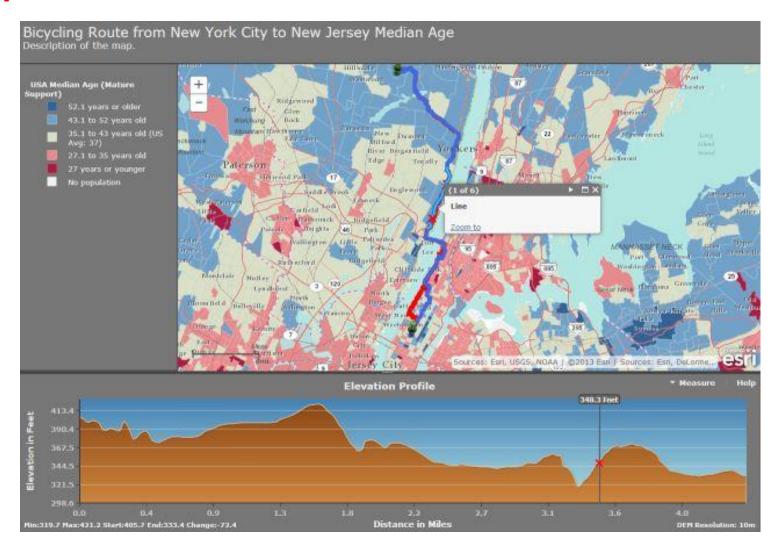
Maps vs. Applications: Maps

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

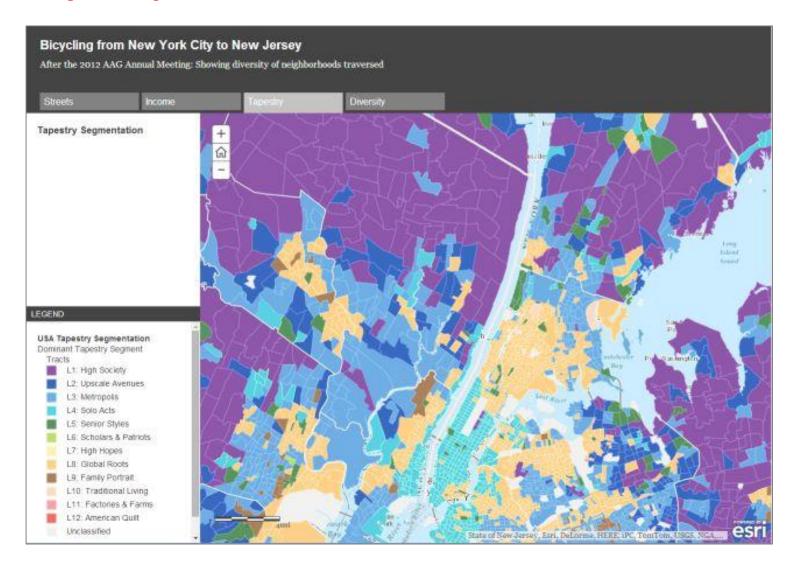


Maps vs. Applications: Story Maps are

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.



3 Methods of Creating Story Maps

Method 1:

Using the Story Map Builder tools.

Method 2:

Create map in ArcGIS Online > Share > Create Story Map web application.

Method 3:

Downloadable configurable apps. Download > configure > Upload.

Selected examples: Story Maps for education and beyond

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/

Ideas and Tutorials

Things you didn't know you could do with story maps: https://www.esri.com/arcgis-blog/products/story-maps/constituent-engagement/things-you-can-do-with-story-maps/

Tutorials and newsletters: https://storymaps.arcgis.com

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Connect with your audience

Lead people in

User experience supports the story

Easy-to-read maps

Strive for simplicity

CLUES Connect with your audience



Think of your mom (Note: This is not Joseph's real mom ©)

Step back and explain things

Avoid using jargon

Be informal but respectful

CLUES Lead 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.

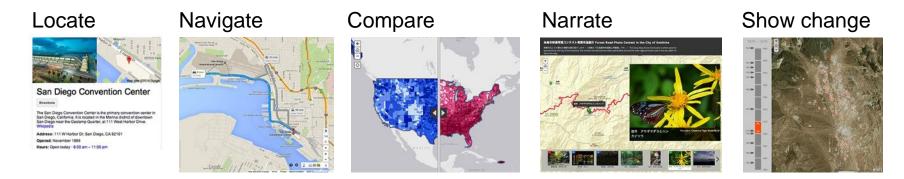
We're now witnessing a sixth extinction, this one due to the impact of a single, dominant species: humans. The animals and plants shown here are a sampling of the thousands across the globe that have either been lost, imperiled, or, in a few cases, brought back from the brink of oblivion by urgent conservation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



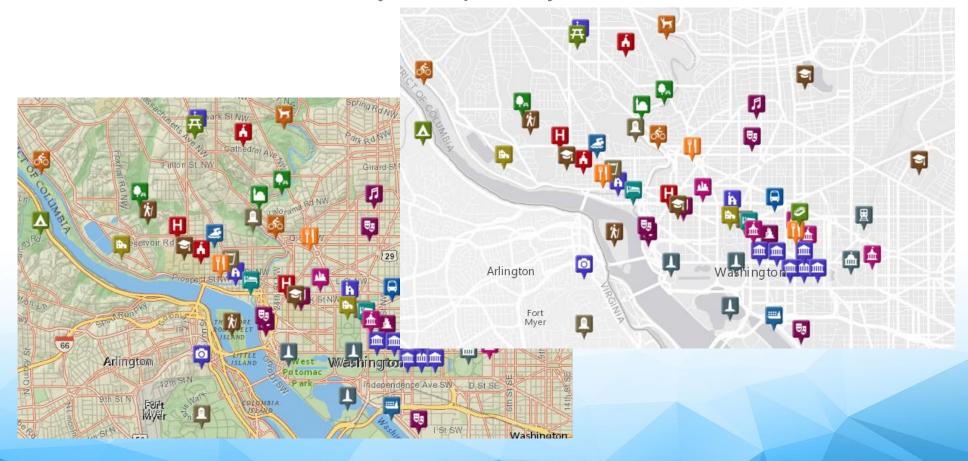
Choose the app that matches your intentions.

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

CLUES Easy-toread maps

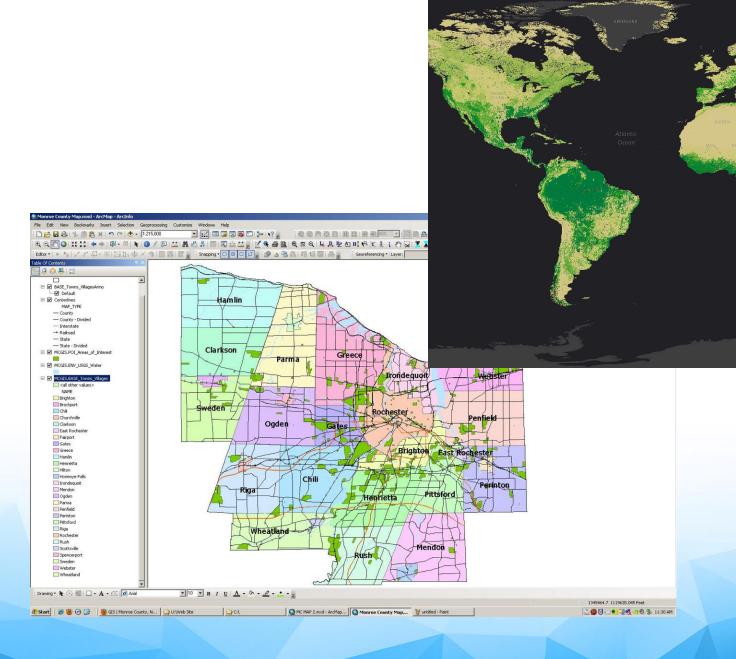
Base map as context—not competition

Avoid visually complex symbols and icons



CLUES Easy-toread maps

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



CLUES **Strive for** simplicity



A story map f 💆 % **esri** Edit! Shorten! Reduce! Distill! Simplify!

CLUES
Strive for simplicity
...and
brevity

Digital media = ADHD media

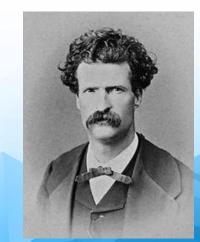


"Not that the story need be long, but it will take a long while to make it short."

— Henry David Thoreau, Letters to Various Persons

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

— Mark Twain



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Teachable Moments with Story Maps

- 1. Make use of My Stories to manage your content.
- 2. Give context of *where* your map is located.
- 3. Keep tabs on tabs—where are you logged in?
- 4. Use folders in ArcGIS Online to organize your work.
- 5. Model good practice of the permitted use of imagery on the web.
- 6. Be mindful of image size and map content.



If you choose to ignore these, your story maps may become...**sorry** maps!
Ooh! Geo-joke!

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.

Online Story Maps

3. Good planning makes for a good story map.

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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
- Cascade
- Crowdsource



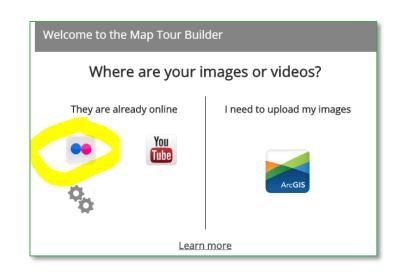






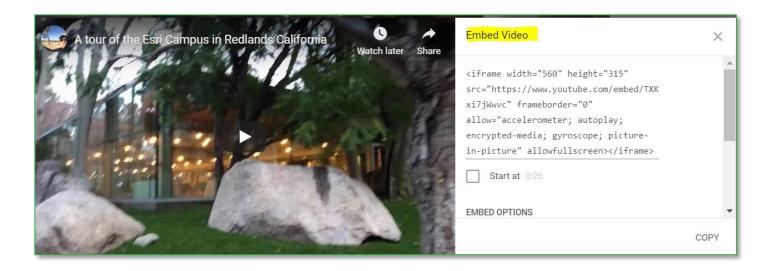
Create a Story Map Tour

- Go to http://storymaps.arcgis.com > Apps > Create Story > Map Tour > Log in.
- Where are your images? > Flickr > joseph_kerski > Lookup > Folders > Esri Sustainable Campus > Import.
- 3. Add additional caption text if you wish.
- 4. Change basemap to Imagery with Labels.
- 5. Re-arrange order of images using Organize.
- Save your map as "Esri Sustainable Campus <your initials or some other code> "



Activity: Build a Story Map Tour – 2 of 3

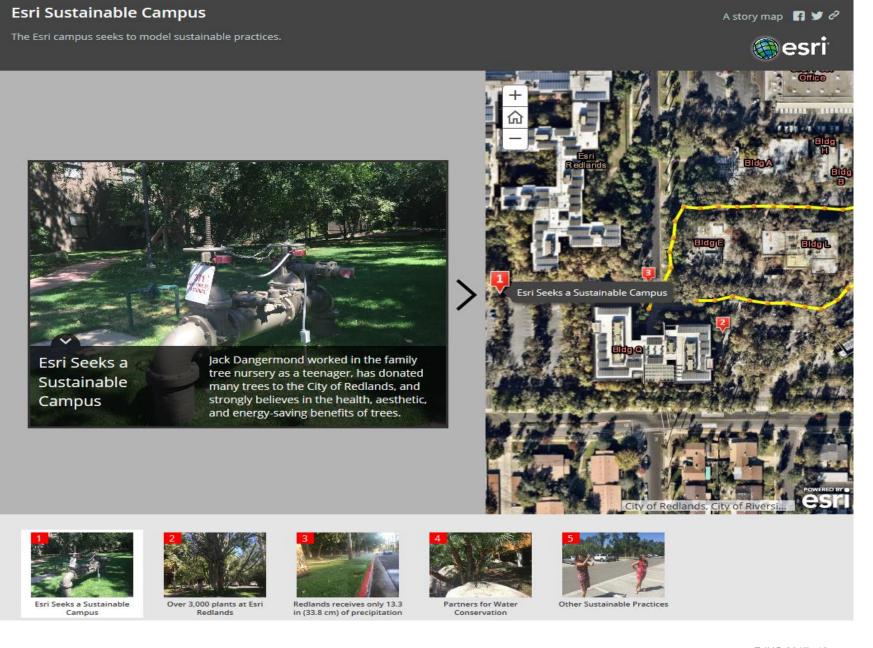
7. Change 1 image to video: Go to any photo > Change media > Video > URL: Go to www.youtube.com/geographyuberalles > Search Our Earth video channel for video "A Tour of the Esri Campus in Redlands California" > Share > Embed > copy and paste the embed code https://www.youtube.com/embed/TXKxi7jWwvc into the URL > Apply; test it.



Activity: Build a Story Map Tour – 3 of 3

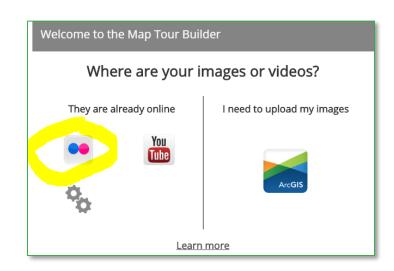
- 8. Add GPS track to map: First, access and download to your device: A GPX file of a track collected with GPS on the Esri campus on: https://www.josephkerski.com/data/esri_redlands_bldgq_to_learning_center.gpx.
- 9. Go to http://storymaps.arcgis.com > My Stories > Find your Esri Sustainable Campus story map > Maps > Edit Map > Add > Add Layer from File > Add GPX > Find your local GPX file > Expand layer > Trackpoints Change Style > Yellow 8 pt, Track line Change Style to Yellow. > Save Map.
- 10. Go Back to My Stories > Open Story Map. Make sure GPX track appears.
- 11. Go to www.arcgis.com > My Content > Create folder with a suitable name > Move your Story Map Tour Map and App to this new folder.

Your map should look similar to this:



Create a Story Map Tour – Activity 2

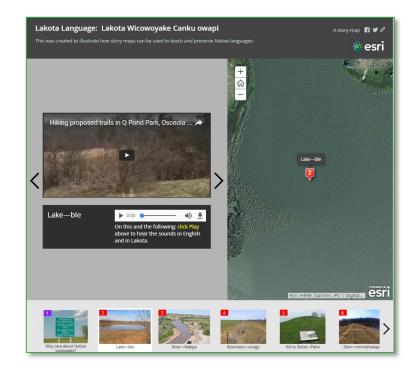
- Go to http://storymaps.arcgis.com > Apps > Create Story > Map Tour > Log in.
- Where are your images? > Flickr > joseph_kerski > Trees of Australia > Import.
- 3. Add additional captions.
- 4. Change basemap to Terrain with Labels.
- 5. Re-arrange order of images using Organize.
- 6. Save your map as "Trees of Australia <your initials or some other code> "

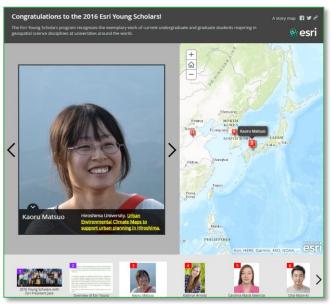


2 Example Map Tours Story Maps

- Lakota Language Story Map
- Use of sound in captions
- Use of videos instead of images

- 2. Esri Young Scholars
- Use of links in captions to student work as PDFs





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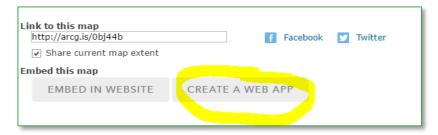
Activity: Create Story Map from a Web Map 1 of 2

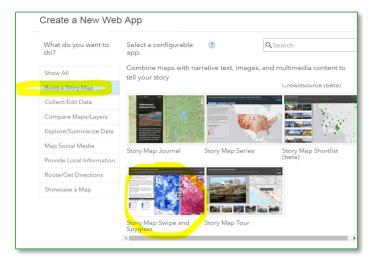
1. Open a median age and median income web map in ArcGIS Online:

http://denverro.maps.arcgis.com/home/webmap/viewer.html?webmap=5 3f7c91aa02643c087e83a53edf87545



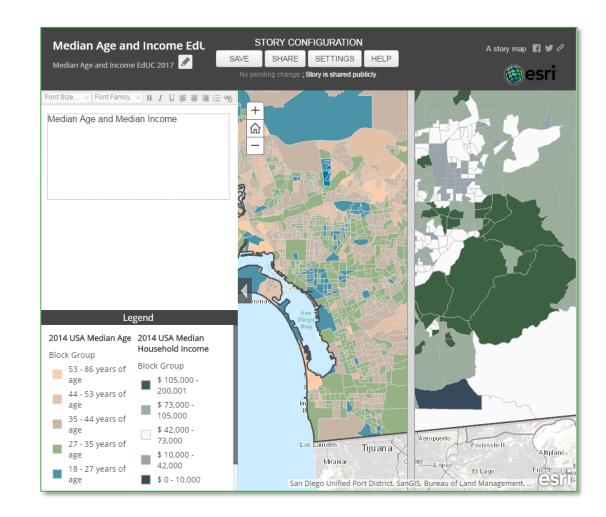
- Or search median age and income owner:jjkerski in www.arcgis.com
- 2. Make sure median income appears at the top of the table of contents and is turned on, and your median age is underneath, and turned on > Save > Share > Create a Web App.
- 3. Next > Build a Story Map > Story Map Swipe and Spyglass:





Activity: Create Story Map from a Web Map 2 of 2

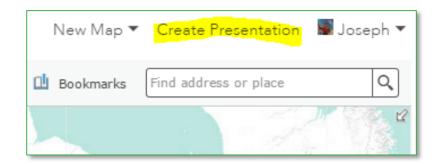
- 4. Title your map (include "swipe" in your title) and provide metadata.
- 5. In the builder tools that appear next > Swipe Style Vertical Bar > Swipe Type: Select layer to swipe: 2014 Median Income > Take defaults on App layout > Pop-up: Left Map header title: Median Age 2014. Right Map header title: Median Income 2014 > Open the app, and check it. It should look similar to this:

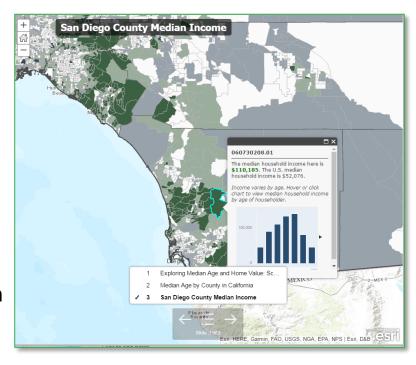


Activity: Build a Presentation from a Web Map

- ➤ Go to My Content > Open your Median Age and Income map in map viewer.
- In the upper right, select Create Presentation.
- > Click on the + Add button to add a new slide #1.
- ➤ Title this slide "Exploring Median Age and Home Value: Scale Matters!". Set scale to current.
- ➤ Add another slide, Slide #2. Zoom so that you can see California by county". Set scale to current.
- ➤ Zoom to California & Nevada until the data visible is by **county**. Add Slide #3, zoom to San Diego County, turn on Median Income > title it "San Diego County Median Income." Set scale=current.
- Click on a census tract > check "include open pop-up in presentation."
- Select Save. Play & check your presentation.
- ➤ It should look similar to this (slide 3 shown):
- ➤ Go to My Content. Note that your presentation is part of your map; it is not saved as a separate item.

You can in the future open your map **or** open your presentation. 1 presentation allowed per map.





Creating Multimedia Map Notes

Open your Median Age and Income map in the map viewer. Make the population density layer invisible and the Median Home Value layer visible.

Using the search box, Find "-117.168484, 32.706307". The result should locate you on the San Diego Bay shore. Select Add to Map Notes.



Edit the Map Note. In the description, enter "View of San Diego Bay." For Image URL, enter: http://www.josephkerski.com/wp-content/uploads/2012/07/sunset_sailboat21-1000x664.jpg

Map notes photographs need to be those that can stand alone on the web; i.e. be opened as a separate web page and not wrapped in an animation or frame.

Select "Edit" to close your editing session. Test your popup. It should look similar to that on this page.

When adding images to map notes and story maps, 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."

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Activity: Build a Story Map Journal – 1 of 3

- 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: Configure content: Click Image> Flickr
- Type in user name "story_maps" (note underscore)
- 7. Click Load albums
- 8. Click album Workshop (10) and choose a photo you like!



1, 2



3



| |



5 - 8

Activity: Build a Story Map Journal – 2 of 3

- Build your Home Section
- 9. Confirm Fill is checked > click Next
- Add text (make it up!) into the text block
- 11. Click **Add** > Home section is done!
- 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 3

- Section: Select a web map
- 15. Search for "StoryMapWorkshop feeding" on ArcGIS Online > click thumbnail
- 16. Next to content, click **Custom Configuration** > Click boxes next to layers:
- Current crop yields 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



15



16



18

2 Map Journals

- 1. Elwha River story Map
- 3D scenes
- Multiple web maps

- 2. <u>History in 40 objects</u>
- Map Journals within Map Tour



Removal of the Elwha dams was the centerpiece of a \$325 million project. Tens of thousands of native seedlings have been planted as part of the ongoing effor to restore the ecosystem and provide habitat for returning salmon.



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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 Google + > <u>jkerski@esri.com</u> > Famous Boots of Wimberley TX.
- 5. Videos are on www.youtube.com/geographyuberalles > Search on "The famous cowboy boots of Wimberley"> Save your map when done.
- 6. Add a section with a sentence that says "Explore the Bootiful Boot Project of Wimberley" with a hyperlink to: http://www.bootifulwimberley.com/
- 7. If time permits: Edit your map, and add a GPX of my walking survey of Wimberley; the file is on: http://www.josephkerski.com/resources/teaching/ search for Wimberley. Save file to your computer > Upload file to web **map.**

Your Map should look similar to this.

Cowboy Boots of Wimberley Texas

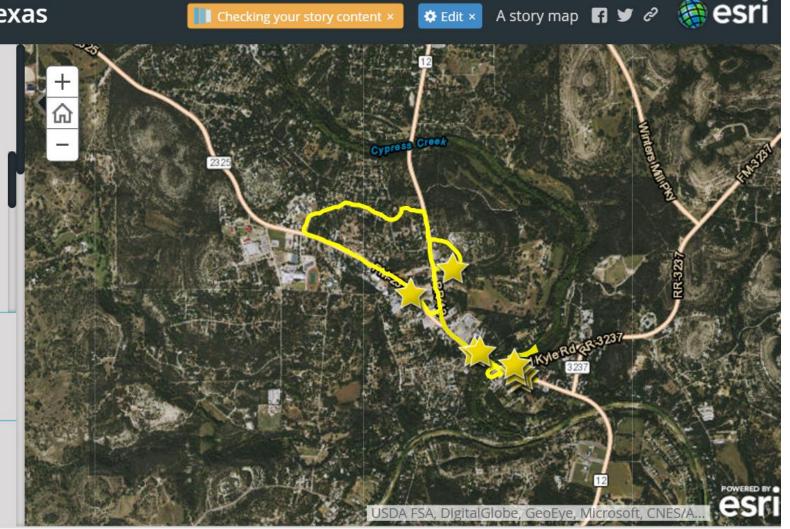
Cowboy Boots of Wimberley
Texas

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?

3 About the Maps



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Activity: Building a Tabbed Story Map 1 of 2

- 1. In www.arcgis.com (ArcGIS Online), open 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 2 of the other settings.
- 10. Save and Share.

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- 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

3 Methods of Creating Story Maps

Method 1: Using the Story Map Builder tools.

Method 2: Create map in ArcGIS Online > Share > Create Story Map web application.

Method 3: 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/brug ge_shortlist/



- 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 tour
- 6. Building a story map from a web map
- 7. Building a story map journal
- 8. Building a side accordion story map
- 9. Building a tabbed story map
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- 11. Discussion

Story Maps Quiz Time!

(1) Story map journals can only access 1 map: True or False?

(2) Once you create a story map, you can delete the ArcGIS Online map behind it: True or False?

Final examples:

1. Story maps in collections:

Digital Humanities:

https://collections.storymaps.esri.com/humanities/

2. Speaking the language of science using Story Maps:

https://community.esri.com/groups/story-maps-foreducation/blog/2018/10/07/speaking-the-language-of-spatial-analysis-via-storymaps

Continuing your Learning

Story maps blog: https://blogs.esri.com/esri/arcgis/category/story-maps/

Education blog: https://geonet.esri.com/community/education/blog

Q&A & resources: https://blogs.esri.com/esri/arcgis/2017/01/31/things-you-can-do-story-maps/

Sign up for Story Maps newsletter: http://go.esri.com/planet-story-maps

Esri Free Training Seminar: Telling Your Story with Esri Story Maps

Web Course: Creating and Sharing GIS Content Using ArcGIS Online

MOOC on Do-It-Yourself Geo-Apps: http://www.esri.com/mooc

Joseph Kerski's how to use photo archives:

https://geonet.esri.com/community/education/blog/2017/02/17/photo-guidelines-for-arcgis-online-maps-including-story-maps

Telling Your Story with Esri Story Maps: A New Medium for Geography-Based Storytelling

Joseph J. Kerski, PhD, GISP

jkerski@esri.com twitter.com/josephkerski



