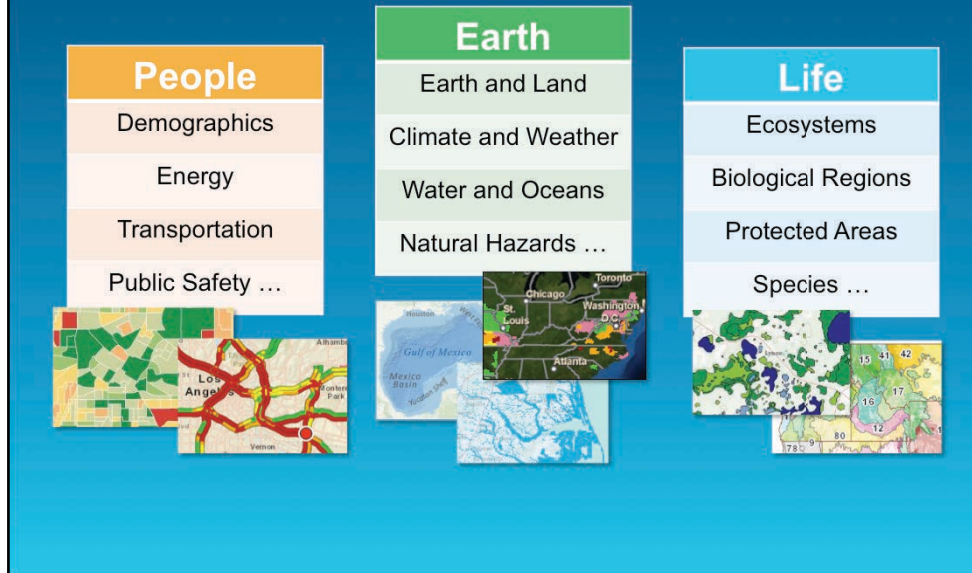


Esri is introducing the concept of a living atlas, which I wanted to take the time to share with ICAN, given that “atlas” is in the name and concept. This is actually something that will not compete with ICAN, but rather is something ICAN can participate in to either leverage their atlas holdings to a much broader audience. Or if an ICAN member does not yet have a fully functioning atlas, this might be considered as an infrastructure that they can use to quickly and effectively create an atlas.


## Collections of Maps Describing our Planet




Over the last few years, Esri and our users have been actively assembling and sharing a rich collection of geospatial content and is publishing this through our cloud platform—ArcGIS Online. Today, this represents one million items of geospatial data, including imagery, basemaps, and map layers on hundreds of topics such as demographics, boundaries, elevation, soils, and climate. This content is organized under 3 major these for describing the planet: People, Earth, and Life. These maps and layers are published by Esri itself and thousands of other organizations around the world. Increasingly, the information published in these maps is dynamic, with many of our users now sharing their transactional information as live maps (e.g., parcel updates are being made available as web map services). In addition, a new class of real-time services, including traffic, weather, earthquakes, stream flows, and others are being made available by both our users and partners. -

## ArcGIS Includes a *Living Atlas of the World*

Maps and Layers from Esri and Thousands of Contributors



- Elevation
- Habitats
- Oceans
- Dynamic Imagery
- Demographics
- Energy
- Hydro
- Hazards
- Streets
- Places
- Landscape
- Imagery



**Growing Collection Includes Crowd Sourcing**

*... Providing a Foundation for 1000s of Projects*

Conceptually, this collection of maps and layers represent a large and growing atlas of the world, which is being actively compiled and curated by Esri and countless other GIS professionals. Like a traditional atlas, this online collection includes both reference maps and thematic maps on many topics. Unlike a traditional atlas, this collection of maps and layers is continually growing and evolving as new maps are added and existing maps are updated every day. These maps and layers are "ready-to-use" in a wide variety of GIS applications as well as apps of all kinds. This geospatial content as well as many GIS tools are readily available for developers to use in building apps easily. As a result, this online platform is now serving billions of maps per month and rapidly growing in the variety of maps that are available and applications that use them. Esri intends to continue building and curating the maps in this "living atlas of the world" and invites our users and partners to work with us on this community effort.

# ArcGIS as a Living Atlas:

Well-organized collection of maps, data, apps through ArcGIS.com.



ArcGIS as a living atlas features a well-organized collection of maps, data, apps freely accessible through ArcGIS.com ArcGIS.com with premium content and web-based analytical functions available by subscription.

# ArcGIS as a Living Atlas:

Best available maps from authoritative sources.

The screenshot shows the ArcGIS Online web application interface. At the top, there is a navigation bar with links for ArcGIS, GALLERY, MAP, GROUPS, and MY CONTENT, along with a search icon. Below the navigation bar, the text "ArcGIS Online" is displayed next to the Esri logo. A large banner on the left side of the page reads "Create and Collaborate on Maps and Apps" and includes a brief description of the platform as a cloud-based, collaborative content management system. A "Learn More" button is positioned below the text. To the right of the banner is a large map showing a detailed urban area with roads, buildings, and green spaces. Below the banner, a section titled "Canada Featured Maps" displays four map thumbnails. From left to right, they are: "2013 British Columbia General Election Results", "Canadian Community Map Participants (Polygons)", "Canadian Community Map Participants (Points)", and "Geology Map of Canada". Each thumbnail has a small title and a brief description below it.

# ArcGIS as a Living Atlas:

Curated by Esri and a global community of participants.

The screenshot shows the ArcGIS Online website interface. At the top, there is a navigation bar with links for ArcGIS, GALLERY, MAP, GROUPS, and MY CONTENT, along with a search bar and user options like Resource Center, Show: All Content, Help, and Sign In. Below the navigation bar, the main header reads "ArcGIS Online" with the Esri logo. A large banner on the left side of the page features the text "Create and Collaborate on Maps and Apps" and a sub-headline: "ArcGIS Online is a cloud-based, collaborative content management system for maps, apps, data, and other geographic information." A "Learn More" button is positioned below this text. To the right of the banner is a large map showing a residential area with roads and green spaces. Below the banner, a section titled "Canada Featured Maps" displays four map thumbnails with their respective titles: "2013 British Columbia General Election Results", "Canadian Community Map Participants (Polygons)", "Canadian Community Map Participants (Points)", and "Geology Map of Canada".

# ArcGIS as a Living Atlas:

Continuously growing, evolving, and updating.

The screenshot shows the ArcGIS Online web application. At the top, there is a navigation bar with links for ArcGIS, GALLERY, MAP, GROUPS, and MY CONTENT, along with a search icon. Below the navigation bar, the page title "ArcGIS Online" is displayed next to the Esri logo. The main content area features a large banner with the text "Create and Collaborate on Maps and Apps" and a sub-headline "ArcGIS Online is a cloud-based, collaborative content management system for maps, apps, data, and other geographic information." A "Learn More" button is positioned below the text. To the right of the text is a large map showing a residential area with a red line indicating a path or boundary. Below the banner, there is a section titled "Canada Featured Maps" which contains four map thumbnails. Each thumbnail has a title and a brief description: "2013 British Columbia General Election Results", "Canadian Community Map Participants (Polygons)", "Canadian Community Map Participants (Points)", and "Geology Map of Canada".

ArcGIS Online

Create and Collaborate on Maps and Apps

ArcGIS Online is a cloud-based, collaborative content management system for maps, apps, data, and other geographic information.

Learn More »

Canada Featured Maps

- 2013 British Columbia General Election Results
- Canadian Community Map Participants (Polygons)
- Canadian Community Map Participants (Points)
- Geology Map of Canada

# ArcGIS as a Living Atlas:

Freely accessible at ArcGIS.com + more content available by subscription.


The screenshot shows the ArcGIS Online web interface. At the top, there is a navigation bar with links for ArcGIS, GALLERY, MAP, GROUPS, and MY CONTENT, along with a search bar and user options like 'Resource Center', 'Show: All Content', 'Help', and 'Sign In'. Below the navigation bar, the 'ArcGIS Online' logo is displayed on the left, and the Esri logo is on the right. The main content area features a large banner with the heading 'Create and Collaborate on Maps and Apps'. The banner text describes ArcGIS Online as a cloud-based, collaborative content management system for maps, apps, data, and other geographic information. A 'Learn More' button is present in the banner. To the right of the banner is a large map showing a residential area with roads and green spaces. Below the banner, there is a section titled 'Canada Featured Maps' which contains four map thumbnails with their respective titles: '2013 British Columbia General Election Results', 'Canadian Community Map Participants (Polygons)', 'Canadian Community Map Participants (Points)', and 'Geology Map of Canada'. Navigation arrows are visible on the left and right sides of the featured maps section.




ArcGIS **GALLERY** MAP GROUPS MY CONTENT Find maps, applications and more...

## Canada Featured Content


Maps **Web Apps** Mobile Apps




2013 British Columbia General Election Results




Canadian Community Map Participants (Polygons)




Canadian Community Map Participants (Points)




Geology Map of Canada




Stanley Cup Cities




The Community Map of Canada



The Atlas of Canada



1m IKONOS Imagery for Canada



Carte interactive des milieux humides du territoire de la CMM

Search for more maps or click below to find the:

- Highest Rated
- Most Recent
- Most Viewed

**What is a map?**


Create your Web map and save it online.

Examples of maps, web applications (i.e., web sites with analytical functions or advanced cartographic functions), and mobile apps that can be downloaded to your phone or tablet.


ArcGIS **GALLERY** MAP GROUPS MY CONTENT Find maps, applications and more...

## Canada Featured Content


**Maps** **Web Apps** **Mobile Apps**




British Columbia's Changing Political Landscape




Canada from the International Space Station




Earth Hour Social Media Map




The 2013 Formula One Championship Story




Toronto Crime: Mapping over time




County of Simcoe - Tourism Map



Highway Wilding



QtheMap - City of Coquitlam



Roving the Red Planet

Search for more Web apps or click below to find the:

- Highest Rated
- Most Recent
- Most Viewed

**What is a Web app?**

Create your own app using the ArcGIS API for:

- JavaScript
- Flex
- Silverlight

ArcGIS **GALLERY** MAP GROUPS MY CONTENT Find maps, applications and more...

## Canada Featured Content

**Maps** **Web Apps** **Mobile Apps**



QuakeFeed iOS App



GeoMobile for ArcGIS



Banff Pothole Reporter



City of Regina CityApp



ArcGIS for iOS Application



ArcGIS for Windows Phone



BAO for iOS



ArcGIS for Android App



APOS Location Intelligence Playbook

Search for more mobile apps or click below to find the:

- Highest Rated
- Most Recent
- Most Viewed

**What is a mobile app?**

Create your own mobile app using the ArcGIS SDK for:

- iOS
- Mobile
- Windows Phone
- Android



Examples of ArcGIS Online for Organization sites, where users have taken customized ArcGIS Online to meet their needs of their own government agency, organization, institute, or university. The user has complete control and can store data, maps, and apps on Esri's cloud (where Esri provides all admin, backups, and security), or their own private clouds. **AGOL for Organizations essentially represents an "Atlas in a Box" because everything that is needed is there in a package for the user already. Just add data and stir.**

Resource Center Show: Web Content Only Help Sign In

HOME GALLERY MAP GROUPS MY CONTENT Find maps, applications and more... Q

WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Caring for your natural resources... now and forever

PETER GOLDMARK  
Commissioner of Public Lands

Gallery Maps **wadnr.maps.arcgis.com**



WADNR - Major Public Lands

WADNR - Natural Resources Conservation

Weed Map - Washington DNR

Washington Interactive Geologic Map

**Make a Map »**  
Create a map that can be viewed in a browser, desktop or mobile device. Share it on a blog, via email, or embed it in a website.

**ArcGIS Online for Developers »**  
Build custom web and mobile applications that incorporate your maps and data.

wadnr.maps.arcgis.com

Resource Center Show: Web Content Only Help Sign In

HOME GALLERY MAP GROUPS MY CONTENT Find maps, applications and more... Q



## College of the Atlantic GIS Online

College of the Atlantic Map Book **coagis.maps.arcgis.com**



**College of the Atlantic  
Main Campus**



**Mount Desert Island**



**Union River Watershed**



**Frenchman Bay**

College of the Atlantic Bar Harbor, Maine

**Make a Map »**

Create a map that can be viewed in a browser, desktop or mobile device. Share it on a blog, via email, or embed it in a website.

**ArcGIS Online for Developers »**

Build custom web and mobile applications that incorporate your maps and data.

[coagis.maps.arcgis.com](http://coagis.maps.arcgis.com)

Resource Center Show: Web Content Only Help Sign In

HOME GALLERY MAP GROUPS MY CONTENT Find maps, applications and more...

**CEIC** Census & Economic Information Center  
 Montana Department of Commerce

Training

[Employment Status - ACS 2006-2010 S2301](#)
[Percent gross rent costs 35 percent or more of](#)
[Places 2010 Census - Percent Below Poverty](#)
[Percent Bachelor's Degree or Higher - ACS 2006-](#)

Montana Department of Commerce  
 Census & Economic Information Center  
 301 S. Park Ave.  
 PO Box 200505  
 Helena, MT 59620-0505  
 406-841-2740  
<http://ceic.mt.gov>

**ceic.maps.arcgis.com**

Make a Map » ArcGIS Online for Developers »

Ceic.maps.arcgis.com

## Content is Published by Esri, Partners, and Users

Built by and for the user community

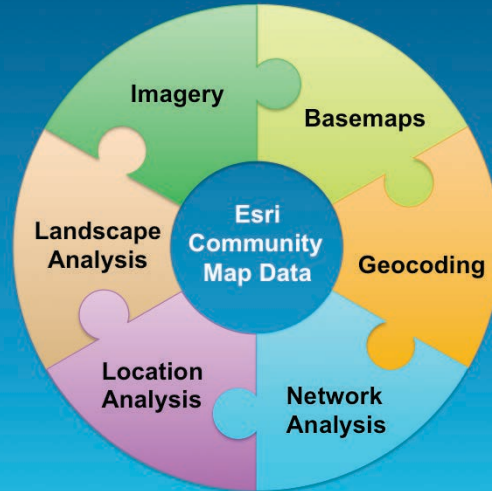


The content available in the ArcGIS system is provided by Esri (with support from its partners) and the ArcGIS user community.



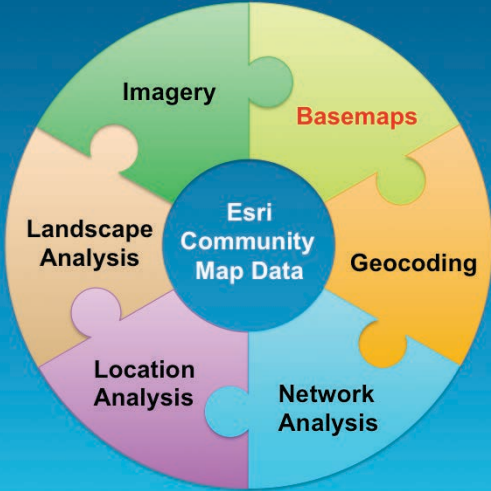
## Esri Content Portfolio

Content is organized into a set of themes



# Esri Content Portfolio

Content is organized into a set of themes

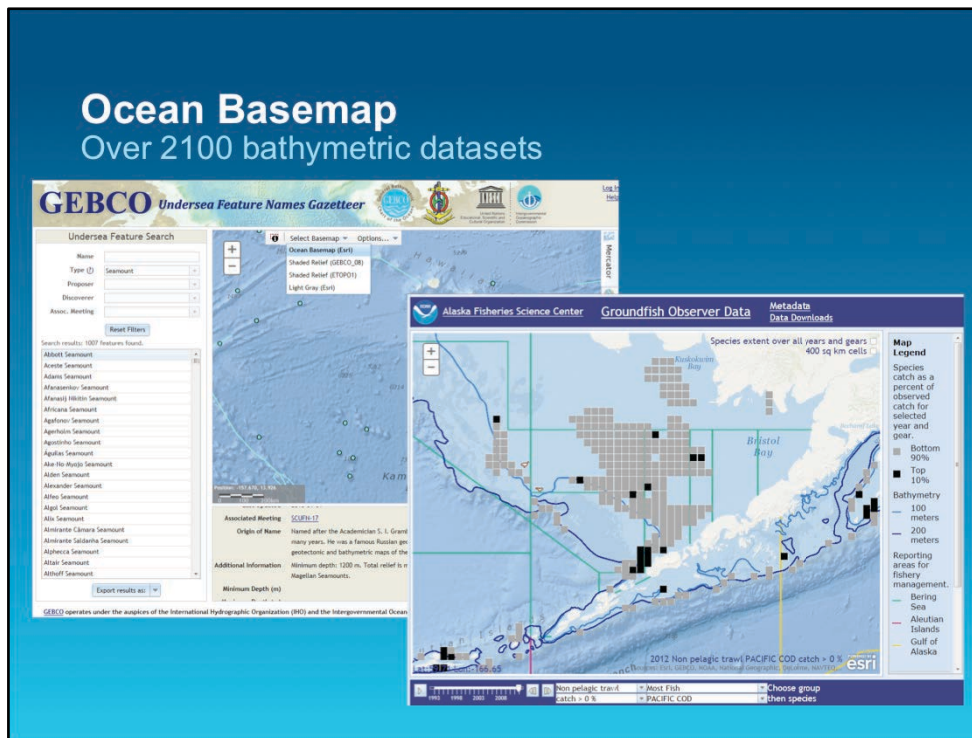


## Basemaps

Suite of basemaps to support web maps and applications



Reference and Foundation Maps for a Living Atlas



One of our biggest contributors to the Ocean Basemap is NOAA, which contributed bathymetric data as for all US coastal areas, as DEMs. This allows us to get zoom coverage down to 1:72K. They also contributed bathy data as bathymetric attributed grids (BAG), and for these select areas we are able to get zoom coverage down to 1:9K, but coverage is limited. We've included all of these data, and continue to update with NOAA data as more grids become available.

The basemap is used widely across the NOAA organization, as the basemap backdrop (lower right). The upper left example is a NOAA/GEBCO site that is responsible for the global gazetteer of undersea feature names. It's also a 'door opener' for the parts of the organization that are using open source.

Here are some more examples of the Ocean Basemap in Use.

- NOS NCCOS Bio Geo program Story map on mapping coral reefs ..  
<http://maps.coastalscience.noaa.gov/storymap/storymap.html?story=mappingsummaryreport>
- NROC, Northeast Regional Data Portal <http://northeastoceanviewer.org/>
- NOAA / BOEM [MarineCadastre.gov http://csc.noaa.gov/mmcviewer/](http://csc.noaa.gov/mmcviewer/)
- NOS CSC ENOW ( Economic Application)  
<http://www.geoplatform.noaa.gov/home/webmap/viewer.html?webmap=89c9a6c716c04543935ee8097163901c>

## Community Maps Program - Data

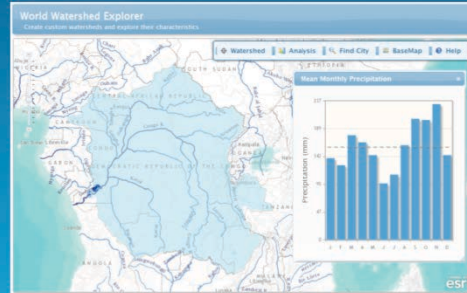
- Popular map themes
  - World Topographic Map
  - World Imagery
  - World Street Map
  - Ocean Basemap
- *New map themes*
  - Hydro-conditioned elevation
  - Precipitation
  - Soils



In the spirit of crowdsourcing/VGI of authoritative content from the community that Esri then hosts free in the cloud and for which you **retain ownership** and for which you are **acknowledged**.

## Community Maps Program - Analysis

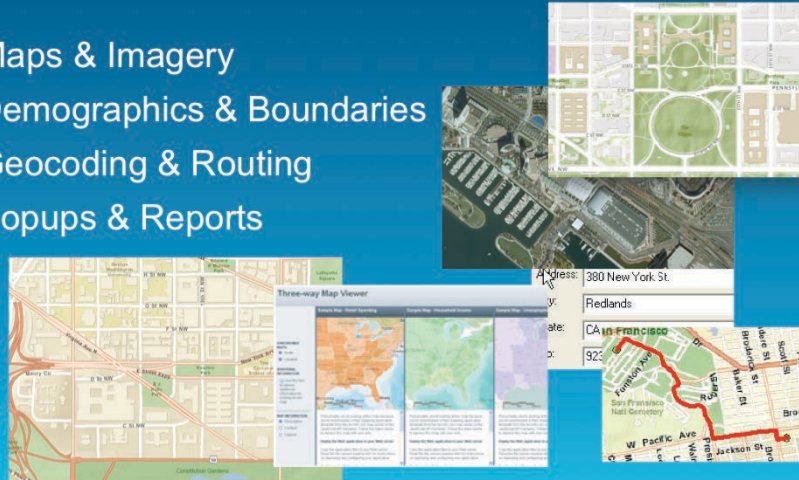
- Current analysis services
  - Geocoding
  - Routing
  - Service area
- *New analysis services*
  - Flow Direction
  - Flow Accumulation
  - Synthetic Stream Network
  - *Watershed Delineation*
  - *Upstream/Downstream Tracing*
  - *Descriptive Statistics*
  - *More ...*



## Broader Esri Content

A collection of ready-to-use maps, data layers, and tools

- Maps & Imagery
- Demographics & Boundaries
- Geocoding & Routing
- Popups & Reports



## Ocean Content: Multiple Pathways

Authoritative ocean and coastal data for:

- Coastal web atlas design and sharing
- Analysis and decision-making



A modest proposal: With existing CWAs, with all the effort that has gone into them, leverage your most popular layers even FURTHER by mirroring or publishing in ArcGIS Online to expose your data and your atlas to a broader community of users. The idea is to drive new users from ArcGIS Online BACK to your site. Or for those just starting with CWA development, consider ArcGIS Online for Organizations (which may be available for free or extremely low cost if your university or agency already has an Esri site license).



## Example Themes and Layers

1. Physical Oceanography  
(currents, temp, weather and sea-state, etc.)
2. Biological  
(species, animal tracks, benthic habitat, marine protected areas)
3. Risk Assessment / Planning  
(resilience, vulnerability, coastal/ocean health index) 
4. Political / Cultural  
(political boundaries and admin, historically important places)
5. Economic  
(navigation, transportation, fisheries, aquaculture, hazards, etc.)

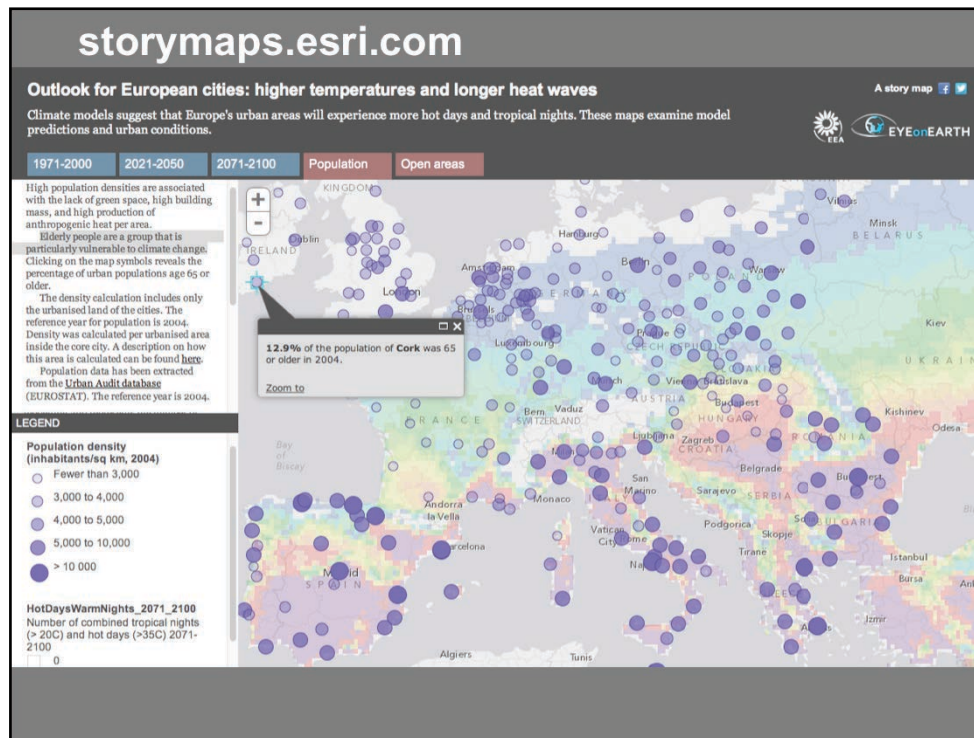
## Other Initiatives, Resources

### Open Source

Geoportal Server, ArcGIS Editor for Open StreetMap, Flex Viewer

- Going Open Source w/Esri: <http://esriurl.com/6358>
- Esri & Open Source, More Please: [bit.ly/O4hLXL](http://bit.ly/O4hLXL) , [blog.geoiq.com](http://blog.geoiq.com)
- Open Source, Closed Source, Moving to the Middle: [bit.ly/RV2JDO](http://bit.ly/RV2JDO)

Some in the coastal web atlas community are interested in leveraging open source code and solutions along with Esri technology, so these resources should be of great help.



Story maps are open-source apps that combine coastal web atlas content with multimedia content to tell geography-based stories about coastal issues. Story map apps provide a framework and user experience that accommodate various forms of storytelling. For instance, the “Swipe” app enables users to easily compare two related thematic maps or images by moving a swipe tool back and forth across the screen. The “Map Tour” app presents a series of geo-tagged photographs together with an interactive map, facilitating place-based narratives such as walking tours.

Esri publishes a continuing series of story maps on a variety of topics at storymaps.esri.com. Some of these stories provide examples of how storytelling apps can be used; other, custom-produced stories serve as test beds that often lead to development of new apps. The site includes a gallery of storytelling apps or templates, and a showcase for story maps produced by a rapidly-growing community of storytellers. Perusing this gallery is a great way to get ideas about how to use and adapt storytelling apps for a variety of uses.

Story map apps are also available via the storymaps.esri.com template gallery and GitHub. This site offers a repository of source code for the story map templates. Users can download an app and host it on their own server or that of a third-party provider. At the moment, the

## From Story Map to Story Atlas

Mexico example: <http://esriurl.com/6437>

both online AND offline



**One can go from a story map to a story ATLAS, to accommodate much more content than can be contained in a single web page or series of web pages. One can also publish an e-book (the reverse of going from a hardcopy atlas to a coastal web atlas: going from a coastal web-atlas to an e-book, or back to hardcopy if desired). One example is an iBook.**

### **What is an iBook ?**

iBook is an iOS ( iPhone and iPad ) application that can be used to view interactive books published using the iBook Author ( A Mac only application that can be downloaded for free on the Mac App store ). iBooks can have interactive elements like gallery of images, videos, reviews, 3D models and any kind of HTML5 widget embedded.

### **Why did we use an iBook for this particular atlas of Mexico as an example?**

We had this amazing data about Mexico along with lots of photos and information. Anything that's linear in the workflow like a impress or a presentation would have dampened the knowledge and hence we created an Atlas where people could move back and forth between the contents very easily. iBooks author was simple to use and had a lot of options to customize the way we wanted to show the data.



# Thank You

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