Introduction to ArcGIS Online and Story Maps

Presented by the University of Connecticut’s Center for Land Use Education and Research (CLEAR)
Welcome!

- Instructor Introductions
- Course logistics
- Student Introductions
  - Name
  - Organization
  - Role in Organization
  - Any mapping experience?
Overall Learning Objectives

• Introduction to Web GIS
• Understanding Esri’s ArcGIS Online Infrastructure
• Web Maps – building, customizing, using them
• Access and use of online GIS data
• Sharing – links, embed, apps and...
• Story maps!
**Workshop Webpages**

**Introduction to ArcGIS Online & Esri Story Maps**

**Workshop Agenda & Overview | Story Map sections & text | Final story maps**

**Workshop Agenda, Details and Links**

9:00 Introductions, logistics, overview

**Part 1: Introduction to ArcGIS Online**

9:20 Introduction to QGIS & ArcGIS Online

ArcGIS Online

A GIS Story

Exercise 1: Follow the Leader: ArcGIS Online Overview

9:45 AM The ArcGIS Online Web Map

Exercise 2a: ArcGIS Online Web Map Basics

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**Introduction to ArcGIS Online & Esri Story Maps**

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**Building Your Story Map Journal**

The content below is referenced by the workshop manual which provides step-by-step instructions for creating a Story Map Journal. Normally, you would spend a significant amount of time doing your own research and planning for a story map. For the purposes of this workshop, we did that work for you. Below is a link to the final story map as an example. Use it as a reference while building your story map.

![The Connecticut Valley Railroad: Then to Now](image)

**The Connecticut Valley Railroad: Then to Now**

The introduction of the Connecticut Valley Railroad in 1871 offered a faster and more efficient way to transport goods and people through the Connecticut River Valley.

**Instructions:**

The story map journal content follows. Each heading represents a different section of the Map Journal. Follow the guided exercise in the workshop manual to get started.

The title of the Map Journal story map is: The Connecticut Valley Railroad: Then to Now.
Workshop Agenda

• Part I: Introduction to ArcGIS Online
  • AGOL basics
  • The Web Map
    • Navigation
    • Data and sources
    • Working with layers, customization
    • Sharing

• Part II: Introduction to Story Maps
  • What are Story Maps?
  • How Story Maps work
  • Build a Map Journal Story Map
  • Build a Story Map Tour
  • Resources, Extras and more
Web Map vs. Story Map

ArcGIS Online Web Map

ArcGIS Online Story Map

Demo!
Part I: Introduction to ArcGIS Online
A Little Background

Geographic Information System

A computer system that hold and uses data describing places on the earth’s surface.
There’s a Story Map for That!

A GIS Story
The power behind the map in the 21st Century
Geographic Data in a GIS

- Hardware
- Software
- Digital Data

- Parcels
- Contours
- Soils
- Zoning
- Land use

Common Coordinate System
GIS and ArcGIS Online

- **Author**: Desktop GIS
- **Publish**: Server GIS, Online GIS (hosted)
- **Use**: Web Maps, Story Maps, Mobile GIS, Desktop GIS
A Note about Esri

Who is Esri?

• GIS powerhouse (ArcGIS Desktop)
• GIS data on the web (Server GIS, hosted services)
• Consume GIS data on the web (ArcGIS Online)
  • Customize maps
  • Share and collaborate
  • Web mapping applications
  • Developer APIs
  • Story maps!
ArcGIS Online Basics

Your User Account

- Free Public Accounts
- Subscription-based Organization Accounts
ArcGIS Online Basics

The ArcGIS Online Home Page

https://www.arcgis.com

Title Bar

Log in

Search

Featured Content

Resources

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CLEAR
Hands-on: Follow the Instructor

- Log into ArcGIS Online
- Click through the heading tabs
  - Content
  - Groups
  - Map
- Search for content
The ArcGIS Online Web Map
The AGOL Web Map

Web Map Overview
- GUI, tools and basemaps
- Searching and finding data in AGOL
- Adding data from a GIS server

Saving, Sharing & Using a Web Map
- My Content
- Public v. Private
- Share links, embed code and web apps
- Content source for story maps
Make your own map:

1. Choose an area.
   Pan and zoom the map to an area or search by its name or address.

2. Decide what to show.
   Choose a Basemap then Add layers on top of it.

3. Add more to your map.
   Add map notes to draw features on the map.
   Display descriptive text, images, and charts for map features in a pop-up.

4. Save and share your map.
   Give your map a name and description then share it with other people.

Details/Contents

AGOL Home Links

Header/Toolbar

Navigation Tools

Map

You!
Change Basemap/Add Data Options

1. Choose an area.
   - Pan and zoom the map or search by its name.

2. Decide what to show.
   - Choose a basemap layer to add to the map.

3. Add more to your map.
   - Add map notes to the map.
   - Display descriptive text and charts for map features in pop-ups.

4. Save and share your map.
   - Give your map a name, description, and share it with others.
Adding Data to Your Map

- **Search for Layers**
  - Search all GIS data registered by AGOL users as “public” information

- **Browse Living Atlas Layers**
  - Search Esri’s curated GIS data, some restrictions apply

- **Add Layer from Web**
  - Add GIS data from a GIS web server

- **Add Layer from File**
  - Upload GIS data from your computer

- **Add Map Notes**
  - Create a new data layer in your map
Let’s Talk about REST

REST = REpresentational State Transfer
Least Talk about REST

REST = REpresentational State Transfer

For ArcGIS Server, the default endpoint is as follows:

https://<host>/<site>/rest/services/<folder>/<serviceName>/<serviceType>
Least Talk about REST

Map Service URL

Layer URL

ArcGIS REST Services Directory

Home > services > Open_Space

Current Version: 10.4

View Footprints In: ArcGIS Online

Services:
- Open_Space/1997_Municipal
- Open_Space/DEEP_Property
- Open_Space/DEEP_Property
- Open_Space/DOT_Scenic_Land
- Open_Space/Federal_Open
- Open_Space/Parcels_for_Open
- Open_Space/Protected_Open

Supported Interfaces: REST
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Demo!
Saving Your Map

Content

- Saved content and uploaded content
  - Web maps
  - Saved layers (map notes)
  - Uploaded content (data, images)
  - 50+ content types
Exercise 2a: ArcGIS Online Web Map Basics

- Navigation tools and search for location
- Basemaps
- AGOL toolbar
  - Bookmarks
  - Measure
- Add Data
  - Search for Layers
  - Add Layer from Web
    - Map Service
    - Single Layer
- Working with Layers
  - Reorder layers
  - Rename a layer
- Save your map!
Working with Data in the Web Map
Working with Data in the Web Map

Symbology (Style)
• Changing colors, symbols

Working with Tables
• Filters
• Selecting records
• Sorting & summary stats
Exercise 2b: Working with Data in the Web Map

- Feature attributes
- Symbology (Style)
- Creating a Filter
- Updating the Legend
- Working with Tables
  - Selecting records
  - Sorting
  - Summary statistics