Web Mapping for Every Discipline

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GIS software resources

- University of Idaho Library | GIS Software (uidaho.edu)

GIS Software

A variety of GIS software tools are available for creating, analyzing, and visualizing geospatial data. University of Idaho students, faculty, and staff have access to Esri products through a higher education site license but there are also many open source options.

Esri Products  Esri Applications  Open Source GIS Tools
What is ArcGIS Online?

• A cloud-based global collaborative platform hosted by Esri that allows you to use, create, manage, analyze, and share maps, apps, and data.
  o https://www.arcgis.com
  o Software-as-a-Service (SaaS) with a quarterly update cycle
  o Ongoing evolution from desktop to web-centric GIS
  o U of I is afforded organizational access through our Statewide Esri GIS Software Site License
Outline

- Apps
- Ready to use maps & data – Esri Living Atlas & others
- Managing & sharing content
- Performing geoprocessing analysis
- Security | privacy | compliance
- Learning resources & support
- Tour/demo
Apps

Apps for the field  Take GIS into the field
Apps for the office  Explore and analyze data in the office
Apps for the community  Share information
App builders  Build applications

3x3 grid/candybox
Apps for the field

- **ArcGIS Field Maps** - map-centric app for mobile data collection & editing
- **ArcGIS Survey123** - form-centric app for collecting survey data
- **QuickCapture** – quickly collect field observations
Apps for the office

- **ArcGIS Pro** - powerful desktop GIS
- **ArcGIS Maps for Office** - make maps in Excel
- **Insights** - location analytics
- **Notebooks** – spatial analysis & visualization
- **Business Analyst** – site selection & market analysis
- **Community Analyst** – analyze impacts of policy decisions
- **GeoPlanner** – scenario planning for natural systems
- **ArcGIS Urban** – city planning
- **Scene Viewer** – create 3D web maps
- **Map Viewer** – 2D web maps
Apps for the community

• **StoryMaps** - digital storytelling

• **Dashboards** - information at-a-glance

• **Hub** - community engagement initiatives
App builders

• **Configurable apps** – choose a template and embed a web map in a web app

• **Web AppBuilder** – use themes & widgets and embed a web map in a web app

• **Experience Builder** – drag-and-drop web app building

• **AppStudio** – develop apps for mobile devices

• **API & SDK** – create apps using application programming interfaces and software development kits

(* no coding required)
Ready to use maps & data layers

- Living Atlas of the World
  - Collection of vetted geographic information from Esri and its partners
- Federal, state, local, tribal agencies
- Your organization
- Colleagues
- Anyone on the platform (if sharing enabled)
- Data available in open GIS formats
Managing & sharing content

- “Content” tab
- Create folders
- Create/add/move/delete/share items
- Link to view item details (documentation, usage statistics, settings)
Managing & sharing content

• “Groups” tab

• Share a collection of items usually related to a specific area of interest

• Create and manage groups (name, description, other)
Managing & sharing content

• “Groups” tab

• Who can be in the group, how can people join, who can view, who can contribute
Managing & sharing content

• All items are ‘private’ by default
• Users choose to make them available more broadly
• Groups can include members of other ArcGIS Online organizations (e.g. governmental or other academic institutions) unless it is a shared update group.
Performing geoprocessing analysis

- Summarize data
  - Aggregate Points
  - Join Features
  - Summarize Nearby
  - Summarize Within

- Analyze patterns
  - Calculate Density
  - Find Hot Spots
  - Find Outliers
  - Interpolate Points

- Use proximity
  - Create Buffers
  - Create Drive-Time Areas
  - Find Nearest
  - Plan Routes
  - Connect Origins to Destinations

- Find locations
  - Find Existing Locations
  - Derive New Locations
  - Find Similar Locations
  - Choose Best Facilities
  - Create Viewshed
  - Create Watersheds
  - Trace Downstream

- Data enrichment
  - Enrich Layer

- Manage data
  - Extract Data
  - Dissolve Boundaries
  - Merge Layers
  - Overlay Layers

[Perform analysis—ArcGIS Online Help | Documentation](#)
Security | privacy | compliance

• ArcGIS Trust Center | Documentation
Learning resources & support

- **ArcGIS Online Resources | Tutorials, Documentation, Videos & More (esri.com)** [blogs, tips & tricks, what’s new]
- **Esri Training | Your Location for Lifelong Learning** [online classroom – learning plans & self-paced learning modules]
- **University of Idaho Library | Data Hub: Geospatial and Data Sciences Support (uidaho.edu)** [coming this fall]
- Bruce Godfrey: bgodfrey@uidaho.edu
- Esri Technical Support Cases
Tour/demo

• Teaching & Scholarly Research Portal
  o https://uidaho.maps.arcgis.com
  o Sign in using U of I Vandal NetID

• Note that U of I has a portal for Administrative & Business Operations
  o https://uidaho-admin.maps.arcgis.com
  o By invitation only
Graduate Student Essentials

September 7: 10 Essential Library Skills to Ace Graduate School

September 14: Six Questions You Need to Ask Before Publishing a Journal Article

September 21: Web Mapping for Every Discipline – How to Use ArcGIS Online

September 28: 7 Tips To Make Your Data Management Life Easier

October 5: Drop-In Citation Management Help
GIS Day @ U of I

• Wed. Nov. 17 @ Pitman Center

• University of Idaho Library | GIS Day @ University of Idaho (uidaho.edu)