

GARP 0317: Cookbook 5 September 2012

Online / Web GIS

Overview

1. What is that?
2. Your own Online / Web GIS!
3. About the Course
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Harnessing the Web and the power of GIS
Going Far Beyond Mapping and Visualization

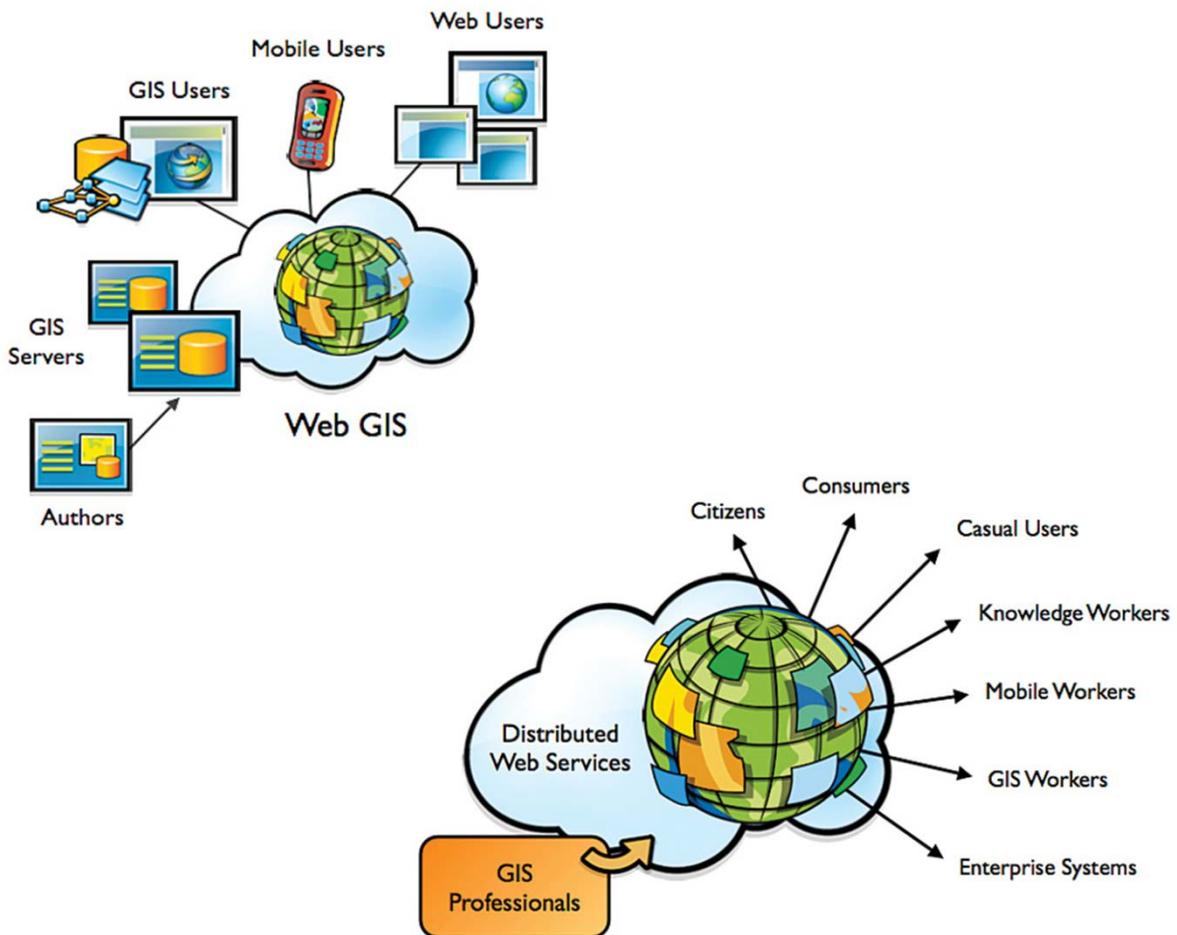
1) What is that?

An Online / Web GIS is a website for an institution:

1. That shows all relevant GIS data layers.
2. That allows the user to 'mash-up' (= overlay) different data layers, to create their own interactive maps (e.g. by adding place markers and content), and to share those maps in a variety of ways.
3. That allows the user to download all relevant GIS data layers.
4. That allows the user to perform at least some basic GIS analysis (e.g. distance measurements, area measurements, buffering, geocoding, routing, travel times, etc.).

That institution can be anything, from an individual to a non-profit charity to a community to a Fortune-500 company.

User = the public!



2) Your own Online / Web GIS!

URL: <http://www.arcgis.com/home/>

Here you can create maps that can be viewed in a web browser, in ArcGIS Desktop, or on mobile devices. You can share your maps via Email, on a blog, or embed them in websites.

Sign-up: two options

1. Create an ESRI Global Account at <https://webaccounts.esri.com/cas/index.cfm> and then register the account for ArcGIS Online at <https://www.arcgis.com/home/signin.html>
2. Create a Personal Account here: <https://www.arcgis.com/home/signin.html>

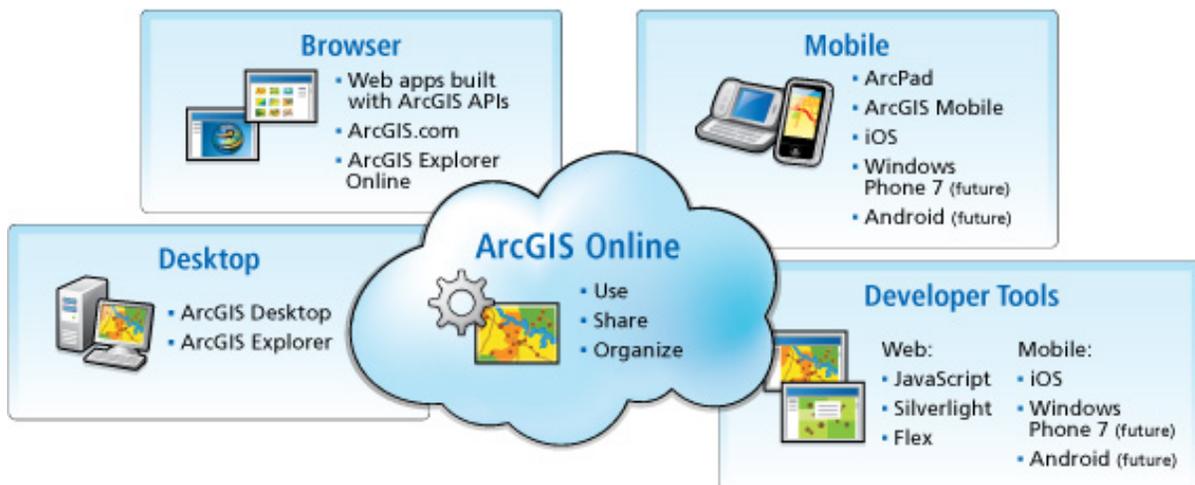
Great Resources

- Video Tutorials:
<http://help.arcgis.com/en/arcgisonline/help/index.html#/Videos/010q00000003000000/>
- Help and Support:
<http://help.arcgis.com/en/arcgisonline/help/index.html#/Overview/010q00000002000000/>

Two ways to use ArcGIS Online

- Use the simple and effective map viewer:
<http://www.arcgis.com/home/gallery.html?useExisting=1>
- Use ArcGIS Explorer Online: <http://explorer.arcgis.com/>

ArcGIS Explorer Online looks 'cooler' and has some added features (such as measuring area), whereas the basic map viewer is simpler, less cluttered, and faster. Your choice!



2.1) Making a Map with ArcGIS Online

The basic process for making a map with ArcGIS Online is very simple. First you define your mapping area and select your basemap. Then you add your own content and finally save and share your map.

1. Goto <http://www.arcgis.com/home/index.html> and click-on Map.
2. Sign In (upper right corner).

Note the mapping instruction on the left side!

3. Choose your area (search, zoom, and pan), for example the Westfield State University campus.
4. Choose your Basemap,  for example Bing Maps Aerial.
5. Create an editable  layer and draw features on your map. Choose an appropriate name and template for your layer. Stick with the Map Notes template!

You can now add point features, line features, and polygon features. Include a title and description, change the symbol as needed, and include links to an image or web site if desired.

6. Save your map – give it a reasonable title, add useful tags, and a quick description.

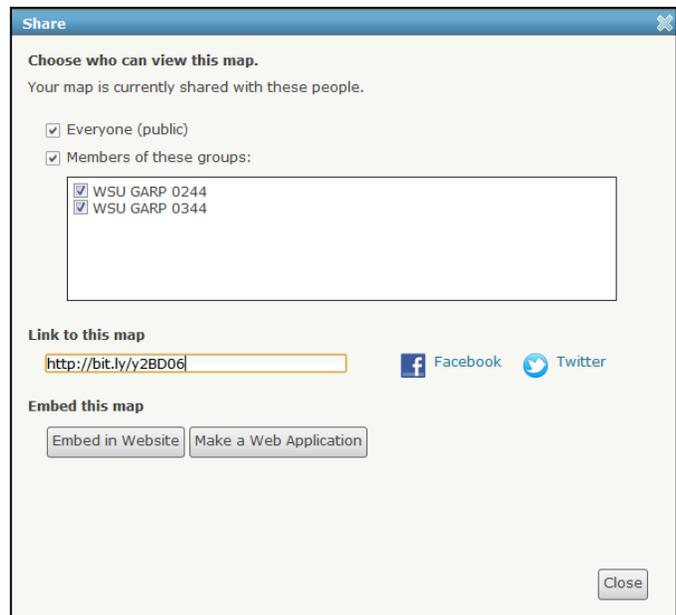
The rest is all practice and experience, so go ahead and explore!

2.2) Sharing your ArcGIS Online Map!

There are three ways to share your ArcGIS Online map with the rest of the world:

1. As a link you include in an Email, on Facebook, Twitter, or on a blog.
2. As HTML code that you can copy/paste into a blog or website.
3. As a stand-alone website.

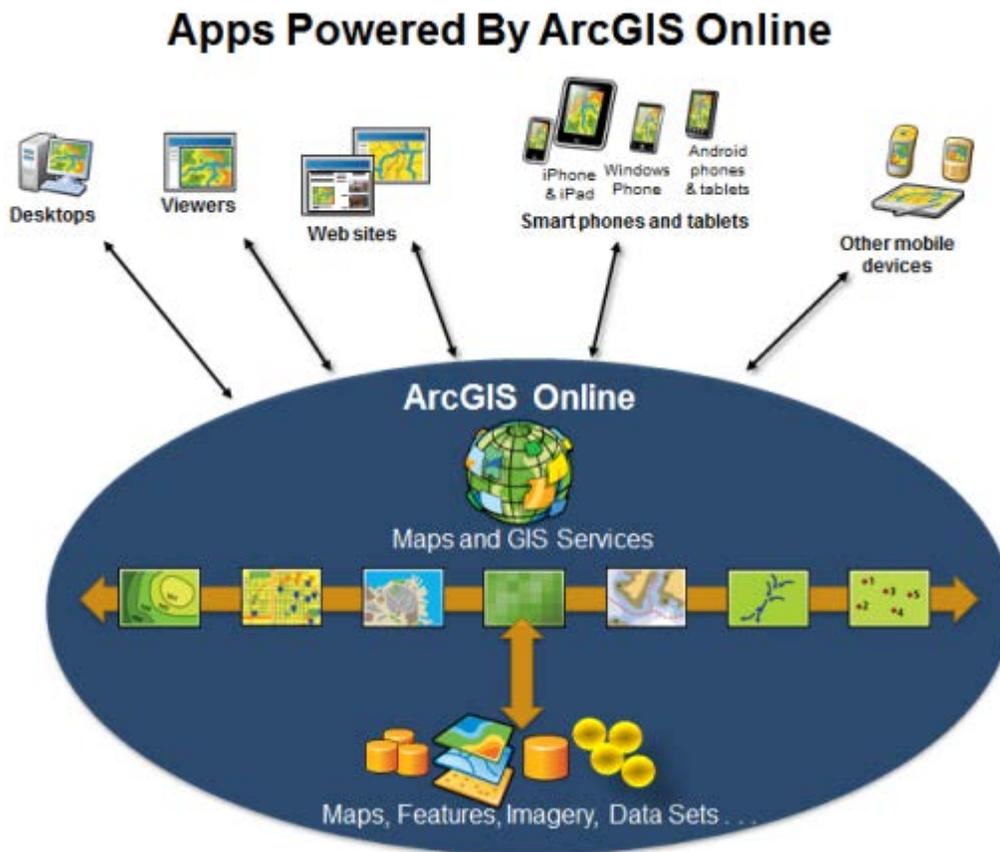
Critical!
To share your map – you need to make it public by checking the box next to Everyone (public).



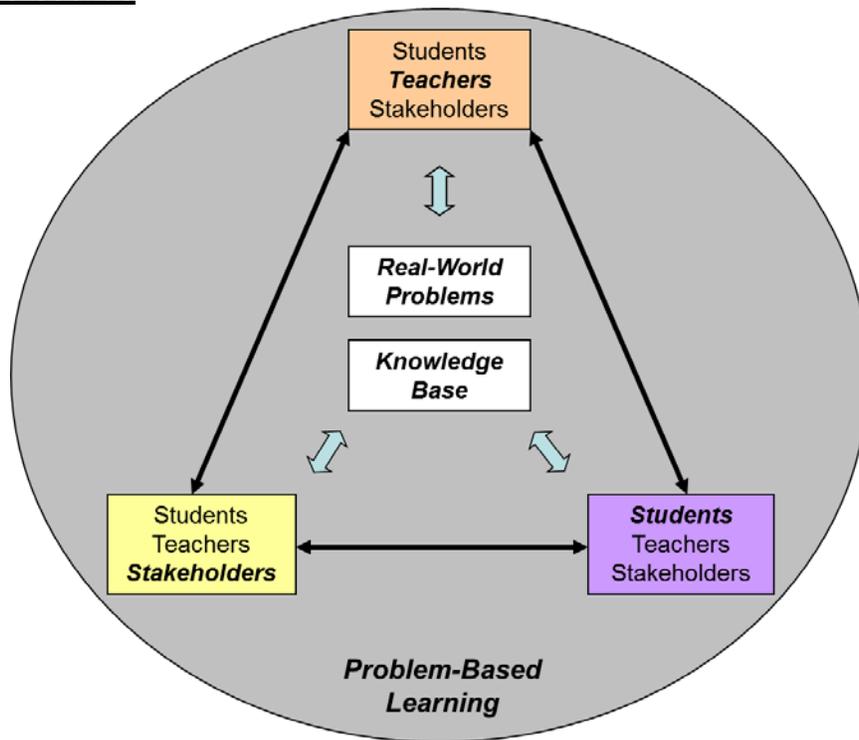
2.3) Adding Content = Data!

Under  Add you can add content to your map:

1. Create Editable Layer
Add place markers and link to websites and online photographs.
2. Add Layer from File
Add real GIS data by importing zipped shapefiles, text files, or GPX files.
3. Add Layer from Web
Add real GIS data available somewhere on the web, for example from MassGIS.



3) About the Course



What is Problem-Based Learning?

Traditional Learning

Teacher as moderator between the students and the problem.

Teacher as moderator between the students and the knowledge base.

➔ ***Students do not directly interact with the problem or the knowledge.***

The teacher takes the raw ingredients and creates a tasty, easy-to-eat, and easy-to-digest dish for students to consume...

= the Dining Commons approach to education!

Problem-Based Learning

- Problems begin 'ill-defined' and emerge as the semester progresses.
- Teacher and students are stakeholders.
- Teacher serves as a coach.
- The skills needed to address the problem emerge and develop along the way.
- The problem is never 'done'.

= the farming approach to education!

Course website and syllabus

<http://www.westfield.ma.edu/cbraun/teaching/special-topics-in-gis/>

4) Homework Assignment #1

1. Create yourself a dedicated blog or website for this course to document everything.
Blog: use WordPress at <http://wordpress.com/>
Website: use Google Sites at www.sites.google.com
2. Acquire a USB flash drive and a 3-ring binder.
3. Create the needed ESRI and Google accounts.
4. Find three or more good examples of Online / Web GIS (ideally one from a college or university) and document on your blog/website: include the website address and a brief but meaningful description.
5. Create a map or two in ArcGIS Online by adding placemarkers with useful text and embedded photographs. Share these maps on your blog/website as links or embedded.

Thus, your website or blog will have two entries by the start of next week: one entry documenting the Online / Web GIS and a second entry sharing your ArcGIS Online maps

Send me the website address (= URL) for your website or blog.

Due Date: Monday, 10 September 2012.

➔ Contact me anytime for clarification and support!