Web Map Applications: The Geo-Web Revisited

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Web Map Apps

• In the first part of our exercise, you visited some web map applications (https://www.isu.edu/maps/)

What’s a Web Map App?

• Web Map Apps rely on a browser and wrapper software to deliver GIS content to the client
• It is the browser that “consumes” the service
• Web Map Apps are frequently “mash-ups” of various map and image services

Wrapper software is a generic term referring to software like ArcGIS Portal
Service Architecture

<table>
<thead>
<tr>
<th>Browser Extension</th>
<th>Description</th>
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<tr>
<td>Adobe Flex</td>
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<tr>
<td>MS Silverlight</td>
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<tr>
<td>JavaScript</td>
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<tr>
<td>HTML 5</td>
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<tr>
<td>Portal (ArcGIS Online)</td>
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Putting Smart Maps on the Web

- Browsers (IE, Chrome, etc.) cannot consume services **directly**
- They need something (wrapper software) to prepare these data for consumption

Which Wrapper...

- Which Environment will we use?
  - Adobe Flex
  - MS Silverlight
  - JavaScript
  - HTML 5
  - Portal (ArcGIS Online (AGOL))
AGOL Architecture

- AGOL is a cloud resource
  - ISU’s AGOL presence is called gISU
  - Each of you already has (or should have) a user account on gISU
  - gISU is allowed 50,000 user accounts
  - gISU is allowed 5,000,000 credits under our site license

Credits: Things you Need to Know!

- Storing geospatial data in the AGOL cloud costs credits
- Creating and storing TILES in the AGOL cloud costs **LOTS** of credits
- Raster layers are not allowed in AGOL (based on ISU’s license agreement)
- What do we do???
Leverage All Our Resources

- Create and store OUR big geospatial data on OUR server – The GIS TReC’s Portal
- Create web services for these Big Data (map/image services) on OUR server
- Share these services’ end-points with AGOL

How?

- AGOL– My Content– Add Item

How to...

- The ITEM URL expects a REST or SOAP end-point
How Do I Find My End-point?

• Access Portal from a web browser
  – Log-in
  – View your Content
  – Select the web layer of interest
  – Copy its REST end-point

Copy and Paste

• Copy the REST end-point
• Paste it into AGOL
• This Adds the Item to your AGOL account
Time to Share

- From AGOL, share your item!
  - Once you add an ITEM to AGOL you can easily share it with others (by named group) or with EVERYONE (public).
  - Recall our discussion of permissions from the “Systems Administration” section of this class

Why not use our Portal Directly

- Permissions and firewalls
- Visibility and discoverability

Now it’s Time for Cartography

- Make your map using AGOL tools
  - Explore
  - Try out Esri’s new Map Viewer
  - Have fun!
  - Detailed instructions can be found this week’s exercise document
- Since the data is not uploaded to AGOL (it is stored on Portal and shared with AGOL), you will not use any credits!
Questions?