

## External Data Sources

Search for streets - The top results (relevance sort) are listed below:



**14 Results** beginning with...

- Primary and Secondary Routes, 1st Quarter 2015 - NC Department of Transportation
- Primary and Secondary Road Arcs, 1st Quarter 2015 - NC Department of Transportation
- Road Characteristics, 1st Quarter 2015 - NC Department of Transportation



**22141 Results** beginning with...

- Streets
- World Street Map
- Streets



**2027 Results** beginning with...

- TIGER/Line Shapefile, 2014, Series Information for the All Roads County-based Shapefile
- Great Chile Earthquake of May 22, 1960 - Anniversary Edition
- TIGER Roads 2015



**131 Results** beginning with...

- USGS DRG Topo Street, MS-LA
- OpenStreetMap Planet
- Neighborhoods: Asia

# Search Multiple Data Websites Simultaneously Using APIs

Jeff Essic  
Data Services Librarian  
North Carolina State Univ. Libraries  
Raleigh, NC

2016 Esri Education GIS Conference

# GIS at NC State University

**ArcGIS installed in all campus labs**

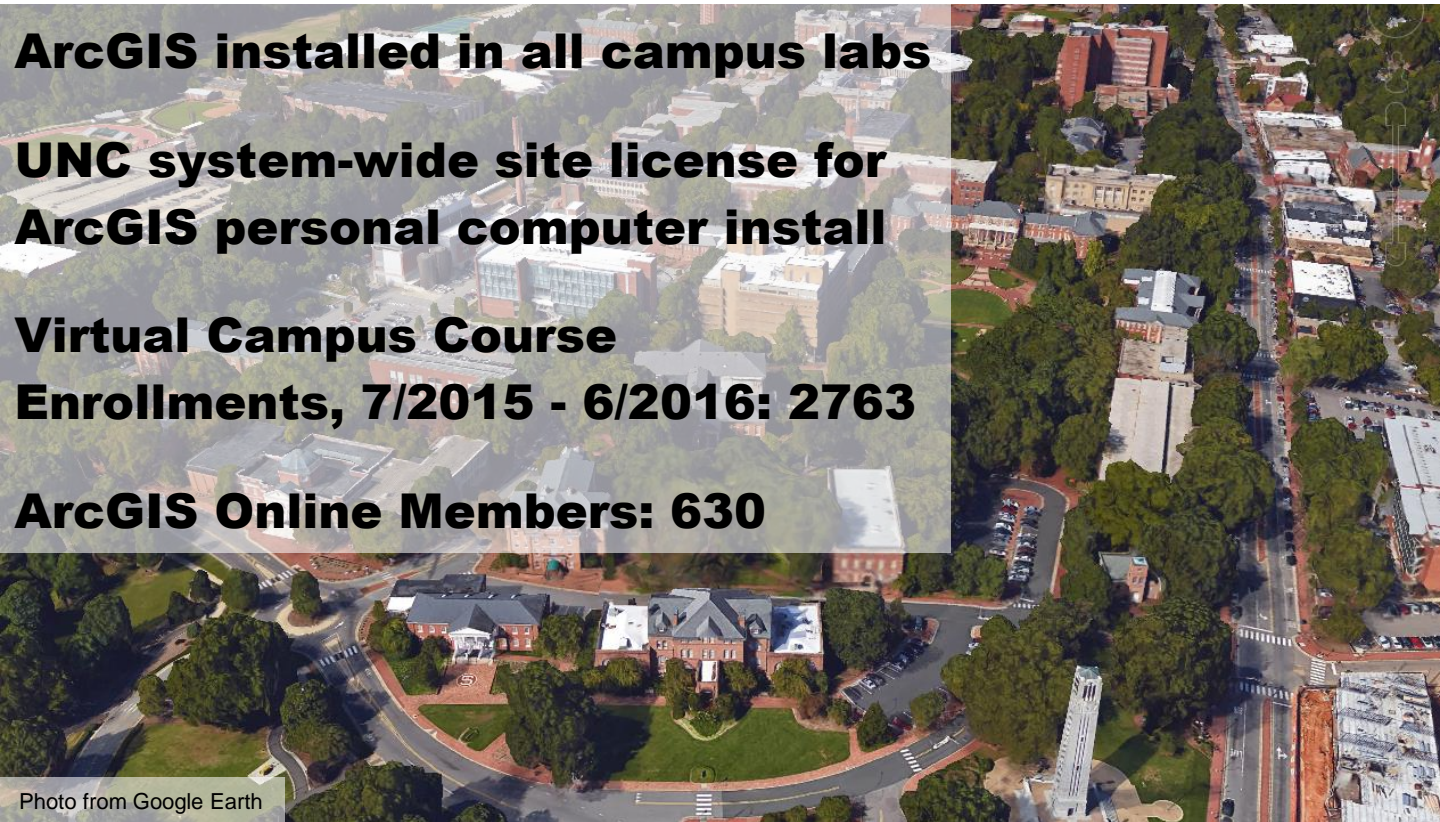
**UNC system-wide site license for  
ArcGIS personal computer install**

**Virtual Campus Course**

**Enrollments, 7/2015 - 6/2016: 2763**

**ArcGIS Online Members: 630**

Photo from Google Earth



# NCSU Center for Geospatial Analytics

**42 GIS Faculty & 11 Affiliates, 157 Grad Students**

**500+ Enrollments in GIS courses per academic year  
(200 each semester in *Intro. to GIST*)**

**Masters GIST, Minors, Cert., PhD in development**

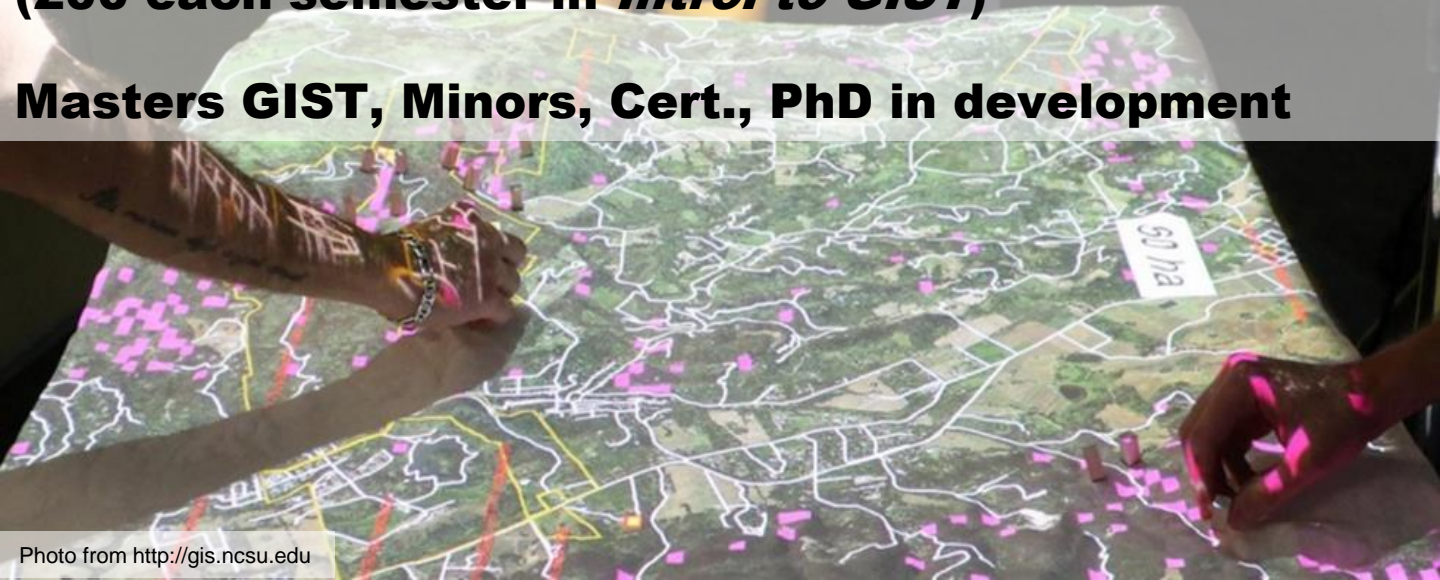
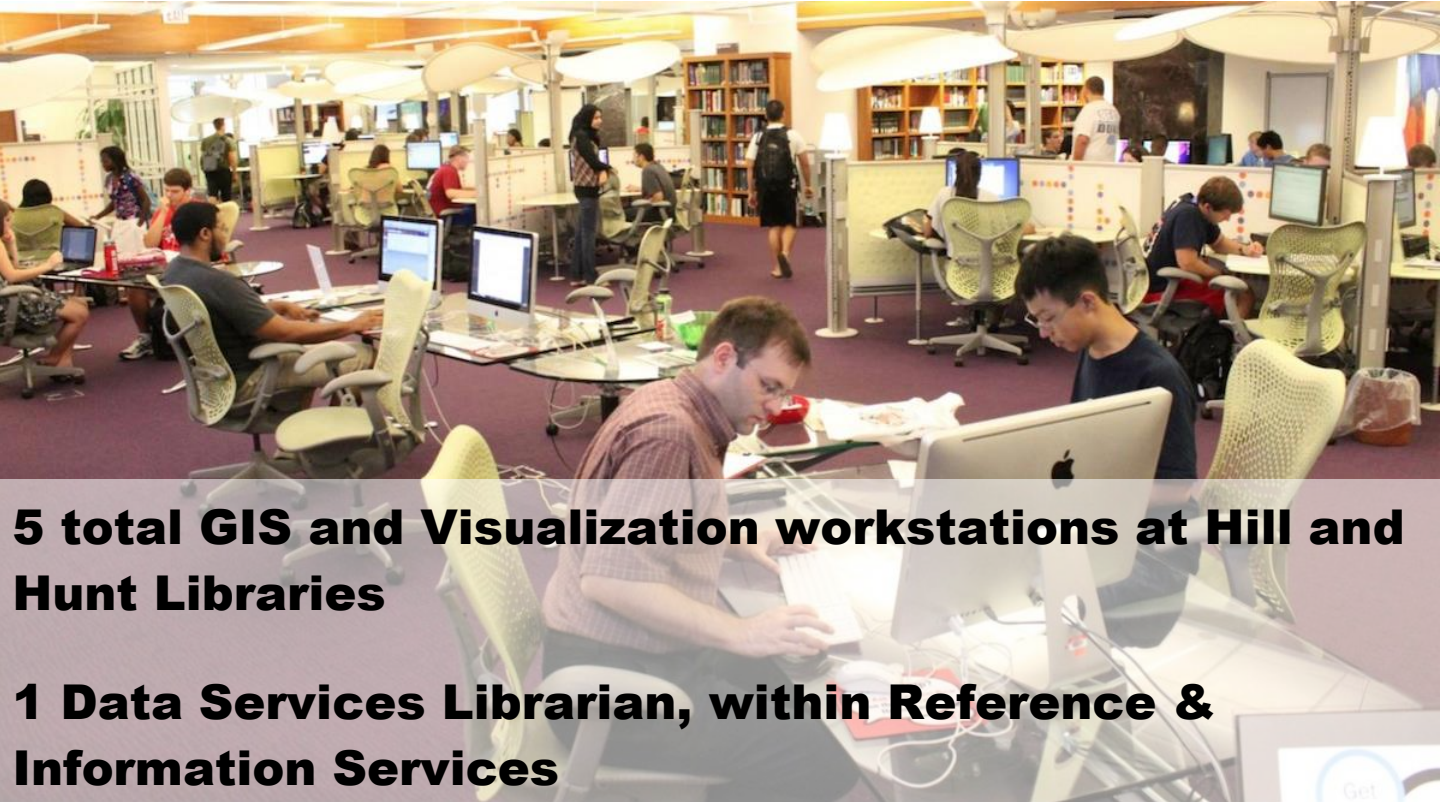


Photo from <http://gis.ncsu.edu>

# NCSU Libraries Geospatial Data Services



**5 total GIS and Visualization workstations at Hill and Hunt Libraries**

**1 Data Services Librarian, within Reference & Information Services**

# Libraries' GIS Data Services History

Mid 90's - received a lot of local and state data on CDs

Late 90's - "GIS Lookup" catalog developed using Access database and perl scripts

Mid 2000's - Transitioned GIS Lookup to dynamic catalog with MySQL/php

Developed batch XML parsing tool to import XML metadata fields into MySQL

Most popular: Esri Data and Maps (delivered on DVDs) and NC OneMap datasets

GIS LOOKUP: KEYWORD SEARCH

Search Term(s):

Support: To narrow your results, try using quotes in your search.

Hide Possible Related Terms

Possible Related Terms: Drainage, high Quality Water And Outstanding Resource Water Manage, high Quality Water And Outstanding Resource Water Management Zones, High Quality Waters, Inland Waters, Lakes, Coasts, Outstanding Resource Waters, Pollution Management Strategies, Rivers, Streams, Sample Sites, Sampling, Stream Classifications, Streamflow, Stream Gaging Stations, Surface Hydrography, Water Quality, Waters, Water Supply, Wetlands

Thesaurus A-Z List


Title	Source	Type	Scale	Date
CGIA: USGS stream page	US Geological Survey	Point	varies	2004
CGIA: HQW and ORW watersheds	NC DENR, Division of Water Quality	Polygon	varies	2004
CGIA: Waterbodies	NC Center for Geographic Information and Analysis	Polygon	1:100,000	2004
CGIA: Major hydrography	NC Center for Geographic Information and Analysis	Line	1:100,000	2004
National Atlas: Realtime Streamflow Stations		Point	1:24,000	2001
CGIA: Hydrography	NC DENR	Line	1:100,000	1999

# GIS Lookup - getting behind

2007 - my son born. No more leisure time for cataloging. GIS Lookup started getting behind.


## ESRI Data and Maps for ArcGIS, ArcGIS StreetMap USA (2006)

[Overview](#) | [Networked Access](#) | [Library Access](#) | [Restrictions](#) | [Previous Versions](#)

 **Please Note:** The 2006 version of Esri Data and Maps was the last version that was extensively cataloged into the Libraries' GIS Lookup database. More recent data are available, but not cataloged. See [Esri Data and Maps](#) general webpage.

<https://www.lib.ncsu.edu/gis/esri2006.html>

# Esri Data & Maps via ArcGIS Online



The screenshot shows the Esri website header with the logo and tagline "Understanding our world." Below the header is a navigation menu with links for Home, Industries, Products, Training, Support, Services, and Events. The main content area is titled "News Release" and features a date "May 25, 2010" and a headline "Esri Launches ArcGIS.com and ArcGIS Explorer Online". The sub-headline reads "New Resources Give Users the Ability to Share GIS Content and Build Communities". The main text begins with "Redlands, California—Esri announces the launch of [ArcGIS.com](#), a Web site for finding and sharing geographic information system (GIS) content, organizing geographic information..."

 **esri** Understanding our world.

[Home](#) [Industries](#) [Products](#) [Training](#) [Support](#) [Services](#) [Events](#)

[News Release](#)

May 25, 2010

**Esri Launches ArcGIS.com and ArcGIS Explorer Online**

**New Resources Give Users the Ability to Share GIS Content and Build Communities**

**Redlands, California**—Esri announces the launch of [ArcGIS.com](#), a Web site for finding and sharing geographic information system (GIS) content, organizing geographic information...

<http://data.nconemap.gov/geoportal/catalog/main/home.page>

# Inspiration!



## GeoSpatial Portal

[Help](#) [About](#) [NC OneMap](#)

[HOME](#) [SEARCH](#) [BROWSE](#) [DOWNLOAD IMAGERY](#) [LAUNCH MAP VIEWER](#)

### Search

Text:

**Records shown from: This Site**  
Click here to select different site(s) or configure search.

**[This Site](#)**

**[ArcGIS Online](#)**

**[Data.gov](#)**

#### Select other search sites:

You may select up to 5 sites.

- This Site
- ArcGIS Online
- Data.gov
- GEO DAB
- US EPA Environmental Dataset Gateway (EDG)

[More Search Options](#) [Clear](#)

WHEN

Results 1-10 of 16 record(s)   >

[Expand Results](#) [Zoom To Results](#) [Zoom To Search Area](#)

[Federal Lands in North Carolina \(October 2015\)](#)

[Managed Areas in North Carolina \(October 2015\)](#)

[State-Owned Lands](#)

[Paddle Trails - Coastal Plain](#)

[NC OneMap Recreation - Map Service](#)

[NC OneMap Habitat - Map Service](#)

[Water Quality Classifications](#)

[Public Water Supply Water Sources, Including Ground Water and Surface Water Sources](#)

[Natural Heritage Program Natural Areas \(October 2015\)](#)

[Road Characteristics, 1st Quarter 2015 - NC Department of Transportation](#)



# The Puzzle

## Challenges:

- Only 1 GIS Librarian/cataloger (me)
- Late 2000's budget cuts (“do more with less”)
- Time costs for linking and cataloging > Value


## Numerous, widely distributed data silos

- data are already cataloged
- stable and free download access
- why duplicate work?
- how to point people in the right direction?

Needed: a custom data search aggregator



# Solution: External Data Sources results window


**NCSU LIBRARIES**

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Search books, articles, journals, websites
ASK US | MY ACCOUNT | HOME | FAQ | LOG OUT | CHAT NOW

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[GIS Data Services Home](#)

Find GIS Data  
Data Collections & Sources  
Keyword Search  
Keyword List  
NC Counties & Cities  
Historic Data

Library Data Services  
GIS Data Services  
Numeric Data Services  
Contact Us

Learn About GIS  
Overview of GIS  
Virtual Campus Courses  
GIS at NCSU

*Can't find data you're looking for? [Contact](#) a Data Services Librarian for help.*

## GIS Lookup: Keyword Search

Search Terms:


Limit by Geographic Extent:

No Limit - Search All

Search


### External Data Sources

Search for **streets** - The top results (relevance sort) are listed below:




**14 Results** beginning with...

- Primary and Secondary Routes, 1st Quarter 2015 - NC Department of Transportation
- Primary and Secondary Road Arcs, 1st Quarter 2015 - NC Department of Transportation
- Road Characteristics, 1st Quarter 2015 - NC Department of Transportation




**22167 Results** beginning with...

- Streets
- World Street Map
- Streets



**2029 Results** beginning with...

- TIGER/Line Shapefile, 2014, Series Information for the All Roads County-based Shapefile
- U.S. Level III and IV Ecogeographic (U.S. EPA)
- Great Chile Earthquake of May 22, 1960 - Anniversary Edition



**131 Results** beginning with...

- USGS DRG Tappi Street, MS-LA
- OpenStreetMap Planet
- Neighborhoods: Asia

### NCSU DATA COLLECTION

| [View](#) | [Possible Related Terms](#)

Legacy denotes outdated data. A more recent version likely exists. Consider an "External Data Source" option linked above, or click the [Collection](#) link for updated source options.

Title	Date	Collection	Extent	Scale	MD
<a href="#">ArcData Online TIGER 95: Streets</a> <small>Legacy</small>	1995	TIGER 95	United States	1:100,000	outdated data
<a href="#">Dynamap/2000: Streets</a> <small>Legacy</small>	1999	Dynamap/2000	North Carolina	1:100,000	
<a href="#">Wake County: Street Centerlines</a> <small>Legacy</small>	2001	Wake County GIS	Wake County, North Carolina	1:4,000	outdated data
<a href="#">Wessex Streets 4.0: Streets</a> <small>Legacy</small>	1995	TIGER 95	United States	1:100,000	outdated data
<a href="#">Wessex Streets 4.0: Railroads</a> <small>(County-level) Legacy</small>	1995	TIGER 95	United States	1:100,000	outdated data
<a href="#">Wessex Streets 4.0: Water</a> <small>Legacy</small>	1995	TIGER 95	United States	1:100,000	outdated data

<http://www.lib.ncsu.edu/gis/search/search.php?q=streets>

# External Data Sources

Search for **streets** - The top results (relevance sort) are listed below:



**14 Results** beginning with...

- Primary and Secondary Routes, 1st Quarter 2015 - NC Department of Transportation
- Primary and Secondary Road Arcs, 1st Quarter 2015 - NC Department of Transportation
- Road Characteristics, 1st Quarter 2015 - NC Department of Transportation



**22141 Results** beginning with...

- Streets
- World Street Map
- Streets

Links to search results on each site using query string



**2027 Results** beginning with...

- TIGER/Line Shapefile, 2014, Series Information for the All Roads County-based Shapefile
- Great Chile Earthquake of May 22, 1960 - Anniversary Edition
- TIGER Roads 2015



**131 Results** beginning with...

- USGS DRG Topo Street, MS-LA
- OpenStreetMap Planet
- Neighborhoods: Asia

```
//BEGIN FUNCTION - searches the different data sites
```

```
function portal($type,$addr,$dir1,$site,$query,$focus,$url) {
```

```
//Number of titles to display
```

```
$numTitles = 3;
```

```
$ch = curl_init();
```

```
//READ THE FEED
```

```
if ($type == "rest") {
```

```
    $chURL = "$addr$dir1/rest/distributed?rid=$site&start=1&max=$numTitles&orderBy=relevance&searchText=$query";
```

```
} elseif ($type == "weo") {
```

```
    $chURL = "$addr/search.xml?per_page=$numTitles&use_facets=false&query=$query";
```

```
} elseif ($type == "json") {
```

```
    $chURL = "$addr/api/3/action/package_search?q=$query&rows=$numTitles&facet=on&facet.field=metadata_type&";
```

```
}
```

```
//echo $chURL; //to debug
```

```
curl_setopt($ch, CURLOPT_URL, $chURL);
```

```
curl_setopt($ch, CURLOPT_HEADER, 0);
```

```
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
```

```
curl_setopt($ch, CURLOPT_CONNECTTIMEOUT, 300);
```

```
curl_setopt($ch, CURLOPT_TIMEOUT, 300);
```

```
$data = curl_exec($ch);
```

```
curl_close($ch);
```

```
//REPORT THE NUMBER
```

```
if ($type == "rest") {
```

```
    $number = preg_replace("/[\D]/", '', $data);
```

```
}
```

```
if ($type == "weo") {
```

```
    $number = strstr($data, 'total_pages', true);
```

```
    $number = strstr($number, 'total_entries=');
```

```
    $number = preg_replace("/[\D]/", '', $number);
```

```
}
```

```
if ($type == "json") {
```

```
    $obj = json_decode($data, true);
```

```
    //$number = $obj['result']['count'];
```

```
    $number = $obj['result']['facets']['metadata_type']['geospatial'];
```

```
}
```

# php function

```
//NC OneMap
$type = "rest";
$addr = "http://data.nconemap.gov/";
$site = "local";
$dir1 = "geoportal";
$focus = "all";
$url = "http://data.nconemap.gov/geoportal/rest/find/document?searchText=$query";
$resultsLink = "http://data.nconemap.gov/geoportal/rest/find/document?searchText=$qq&f=searchpage";
echo '<tr><td align="center" style="padding-right: 10px;"></td><td><a href="' . $resultsLink . ">Search</a></td></tr>'";
portal($type,$addr,$dir1,$site,$query,$focus,$url);
echo "</td></tr> \n";
```

```
//ArcGIS.com
$type = "rest";
$addr = "http://gptogc.esri.com/";
$dir1 = "geoportal";
$site = "arcgis.com";
$focus = "all";
$url = "http://gptogc.esri.com/geoportal/rest/find/document?searchText=$query";
$resultsLink = "http://www.arcgis.com/home/search.html?q=$qq";
echo '<tr><td align="center" style="padding-right: 10px;"></td><td><a href="' . $resultsLink . ">ArcGIS.com</a></td></tr>'";
portal($type,$addr,$dir1,$site,$query,$focus,$url);
echo "</td></tr> \n";
```

```
//geo.data.gov
$type = "json";
$addr = "http://catalog.data.gov";
$dir1 = "";
$site = "";
$focus = "";
$url = "http://catalog.data.gov/dataset?metadata_type=geospatial&metadata_type_limit=0&q=$query";
$resultsLink = "http://catalog.data.gov/dataset?metadata_type=geospatial&metadata_type_limit=0&q=$qq";
echo '<tr><td align="center" style="padding-right: 10px;"></td><td><a href="' . $resultsLink . ">geo.data.gov</a></td></tr>'";
portal($type,$addr,$dir1,$site,$query,$focus,$url);
echo "</td></tr> \n";
```

```
//Trimbledata.com
$type = "weo";
$addr = "http://market.trimbledata.com";
$dir1 = "";
```

# REST/ GeoRSS (NC OneMap, ArcGIS.com)

← → ↻

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0" xmlns:georss="http://www.georss.org/georss" xmlns:georss10="http://www.georss.org/georss/10" xmlns:media="http://search
xmlns:opensearch="http://a9.com/-/spec/opensearch/1.1/" xmlns:atom="http://www.w3.org/2005/Atom" xmlns:geoportal="http://www.esri.com/geo
<channel>
<title>Geoportal GeoRSS.</title>
<description>Most recently updated metadata documents.</description>
<link>http://gptogc.esri.com/geoportal</link>
<docs>http://www.rssboard.org/rss-specification</docs>
<category>GeoRss</category>
<generator>Geoportal</generator>
<managingEditor>portal@esri.com</managingEditor>
<webMaster>portal@esri.com</webMaster>
<item>
<title>World Street Map</title>
<description><![CDATA[
<div class="snippet">
<div class="abstract" style="overflow: auto;" >
This map features highway-level data for the world and street-level data for North America, Europe, and other parts of the world. The map
details on the map, please visit the World Street ...
</div>
<div class="links">
<A HREF="http://www.arcgis.com/sharing/content/items/d8855ee4d3d74413babfb0f41203b168/data" target="_blank">Open</A>
<A HREF="http://www.arcgis.com/sharing/content/items/d8855ee4d3d74413babfb0f41203b168/webpage" target="_blank">Website</A>
</div>
</div>
]]></description>
<category>document</category>
<georss:box>-90.0 -180.0 90.0 180.0</georss:box>
<georss10:box>-90.0 -180.0 90.0 180.0</georss10:box>
</item>
<item>
<title>Streets</title>
<description><![CDATA[
<div class="snippet">
<div class="abstract" style="overflow: auto;" >
This map features highway-level data for the world and street-level data for North America, Europe, and other parts of the world. The map
details on the map, please visit the World Street ...
</div>
<div class="links">
<A HREF="http://www.arcgis.com/sharing/content/items/d8855ee4d3d74413babfb0f41203b168/data" target="_blank">Open</A>
<A HREF="http://www.arcgis.com/sharing/content/items/d8855ee4d3d74413babfb0f41203b168/webpage" target="_blank">Website</A>
</div>
</div>
]]></description>
<category>document</category>
<georss:box>-90.0 -180.0 90.0 180.0</georss:box>
<georss10:box>-90.0 -180.0 90.0 180.0</georss10:box>
</item>
<item>
<title>World Street Map</title>
<description><![CDATA[
<div class="snippet">
<div class="abstract" style="overflow: auto;" >
This map was last updated&nbsp;June 2016. This worldwide street map presents highway-level data for the world down to&nbsp;~1:72k
States; most of Canada; Japan; Europe; much of Russia; Austral...
</div>
<div class="links">
<A HREF="http://gptogc.esri.com/geoportal/catalog/livedata/preview.page?
uid=3b93337983e9436f8db950e38a8629af&url=http%3A%2F%2Fservices.arcgis.com%2Farcgis.com%2Frest%2Fservices%2FWorld_Street_Map%2FMapS
```

# Data.gov - json

catalog.data.gov/api/3/action/package\_search?q=streets&rows=3&facet=on&facet.field=metadata\_type&fq=geospatial

The parameter that controls which fields are returned in the solr query cannot be changed. CKAN always returns the matched datasets as dictionary objects.

```
{
  "success": true, "result": {"count": 2049, "search_facets": {"metadata_type": [{"items": [{"count": 2027, "display_name": "geospatial", "name": "geospatial"}], "title": "metadata_type"}], "facets": {"metadata_type": {"geospatial": 2027}}, "results": [{"owner_org": "31c49abe-512a-412a-9cc7-5b2601325d6b", "maintainer": null, "relationships_as_object": [], "private": false, "maintainer_email": null, "num_tags": 0, "id": "32936299-cf9f-4f02-adab-935a6c6b1292", "metadata_created": "2016-05-26T12:20:51.324529", "metadata_modified": "2016-06-07T02:40:02.202361", "author": null, "author_email": null, "state": "active", "version": null, "license_id": null, "type": "dataset", "resources": [{"resource_group_id": "454de3a4-39b3-49dc-a47d-a053fc45c5a2", "cache_last_updated": null, "revision_timestamp": "2016-06-07T02:40:02.202361", "webstore_last_updated": null, "id": "f2f61a0b-99cf-414a-934a-07e5ac6a2dac", "size": null, "state": "active", "last_modified": null, "hash": "", "description": "", "format": "tgrshp (compressed)", "tracking_summary": {"total": 389, "recent": 15}, "mimetype_inner": null, "resource_locator_protocol": "", "mimetype": null, "cache_url": null, "name": "Shapefile Zip File Folder", "created": "2016-06-06T22:40:02.521255", "url": "http://www2.census.gov/geo/tiger/TIGER2014/ROADS", "webstore_url": null, "resource_locator_function": "", "position": 0, "revision_id": "65e74e0d-b96d-409d-9d32-4662b4147a40", "resource_type": null}, {"resource_group_id": "454de3a4-39b3-49dc-a47d-a053fc45c5a2", "cache_last_updated": null, "revision_timestamp": "2016-06-07T02:40:02.202361", "webstore_last_updated": null, "id": "e53ebee9-bebe-49a5-b7ac-5842def486a6", "size": null, "state": "active", "last_modified": null, "hash": "", "description": "Should be used for most mapping projects--this is our most comprehensive dataset. Designed for use with GIS (geographic information systems).", "format": "HTML", "tracking_summary": {"total": 731, "recent": 26}, "mimetype_inner": null, "resource_locator_protocol": "", "mimetype": null, "cache_url": null, "name": "TIGER/Line\\u00ae Shapefiles", "created": "2016-06-06T22:40:02.521318", "url": "http://www.census.gov/geo/maps-data/data/tiger-line.html", "webstore_url": null, "resource_locator_function": "", "position": 1, "revision_id": "65e74e0d-b96d-409d-9d32-4662b4147a40", "resource_type": null}, {"resource_group_id": "454de3a4-39b3-49dc-a47d-a053fc45c5a2", "cache_last_updated": null, "revision_timestamp": "2016-06-07T02:40:02.202361", "webstore_last_updated": null, "id": "03511ee3-17a5-435a-9469-997b0b382b37", "size": null, "state": "active", "last_modified": null, "hash": "", "description": "TGRSHP2014_TechDoc.pdf", "format": "PDF", "tracking_summary": {"total": 121, "recent": 4}, "mimetype_inner": null, "resource_locator_protocol": "", "mimetype": null, "cache_url": null, "name": "TIGER/Line\\u00ae Shapefiles 2014 Technical Documentation Shapefiles", "created": "2016-06-06T22:40:02.521347", "url": "http://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2014/TGRSHP2014_TechDoc.pdf", "webstore_url": null, "resource_locator_function": "", "position": 2, "revision_id": "65e74e0d-b96d-409d-9d32-4662b4147a40", "resource_type": null}, {"resource_group_id": "454de3a4-39b3-49dc-a47d-a053fc45c5a2", "cache_last_updated": null, "revision_timestamp": "2016-06-07T02:40:02.202361", "webstore_last_updated": null, "id": "b9744ac8-7f83-4b8e-9c59-da07ad60160e", "size": null, "state": "active", "last_modified": null, "hash": "", "description": "tl_2014_roads.shp.ea.iso.xml", "format": "XML", "tracking_summary": {"total": 31, "recent": 2}, "mimetype_inner": null, "resource_locator_protocol": "", "mimetype": null, "cache_url": null, "name": "Feature Catalog for the 2014 All Roads county-based Shapefile", "created": "2016-06-06T22:40:02.521373", "url": "http://meta.geo.census.gov/data/existing/decennial/GEOP/GFMB/TIGERline/TIGER2014/roads/tl_2014_roads.shp.ea.iso.xml", "webstore_url": null, "resource_type": null}, {"resource_group_id": "454de3a4-39b3-49dc-a47d-a053fc45c5a2", "cache_last_updated": null, "revision_timestamp": "2016-06-07T02:40:02.202361", "webstore_last_updated": null, "id": "12676251-410c-4168-9609-44161410", "size": null, "state": "active", "last_modified": null, "hash": "", "description": "TIGER/Line Shapefile, 2014, Series Information for the All Roads county-based Shapefile", "format": "XML", "tracking_summary": {"total": 76, "recent": 53}, "groups": [{"name": "TIGER/Line-shapefile-2014-series-information-for-the-all-roads-county-based-shapefile", "isopen": false, "url": null, "notes": "The All Roads Shapefile includes all features within the MTDB Super Class \\\"Road/Path Features\\\" distinguished where the MAF/TIGER Feature Classification Code (MTFCC) for the feature in MTDB that begins with \\\"S\\\". This includes all primary, secondary, local neighborhood, and rural roads, city streets, vehicular trails (4wd), ramps, service drives, alleys, parking lot roads, private roads for service vehicles (looding, oil fields, ranches, etc.). bike paths or trails, bridle/horse paths, walkways/pedestrian"}], "name": "TIGER/Line Shapefile, 2014, Series Information for the All Roads county-based Shapefile", "tracking_summary": {"total": 76, "recent": 53}, "groups": [{"name": "TIGER/Line-shapefile-2014-series-information-for-the-all-roads-county-based-shapefile", "isopen": false, "url": null, "notes": "The All Roads Shapefile includes all features within the MTDB Super Class \\\"Road/Path Features\\\" distinguished where the MAF/TIGER Feature Classification Code (MTFCC) for the feature in MTDB that begins with \\\"S\\\". This includes all primary, secondary, local neighborhood, and rural roads, city streets, vehicular trails (4wd), ramps, service drives, alleys, parking lot roads, private roads for service vehicles (looding, oil fields, ranches, etc.). bike paths or trails, bridle/horse paths, walkways/pedestrian"}], "mimetype_inner": null, "resource_locator_protocol": "", "mimetype": null, "cache_url": null, "name": "TIGER/Line Shapefile, 2014, Series Information for the All Roads county-based Shapefile", "created": "2016-06-06T22:40:02.521373", "url": "http://meta.geo.census.gov/data/existing/decennial/GEOP/GFMB/TIGERline/TIGER2014/roads/tl_2014_roads.shp.ea.iso.xml", "webstore_url": null, "resource_type": null, "num_resources": 4, "tags": []}
}
```





# Benefits

Expose multiple data collections / sources

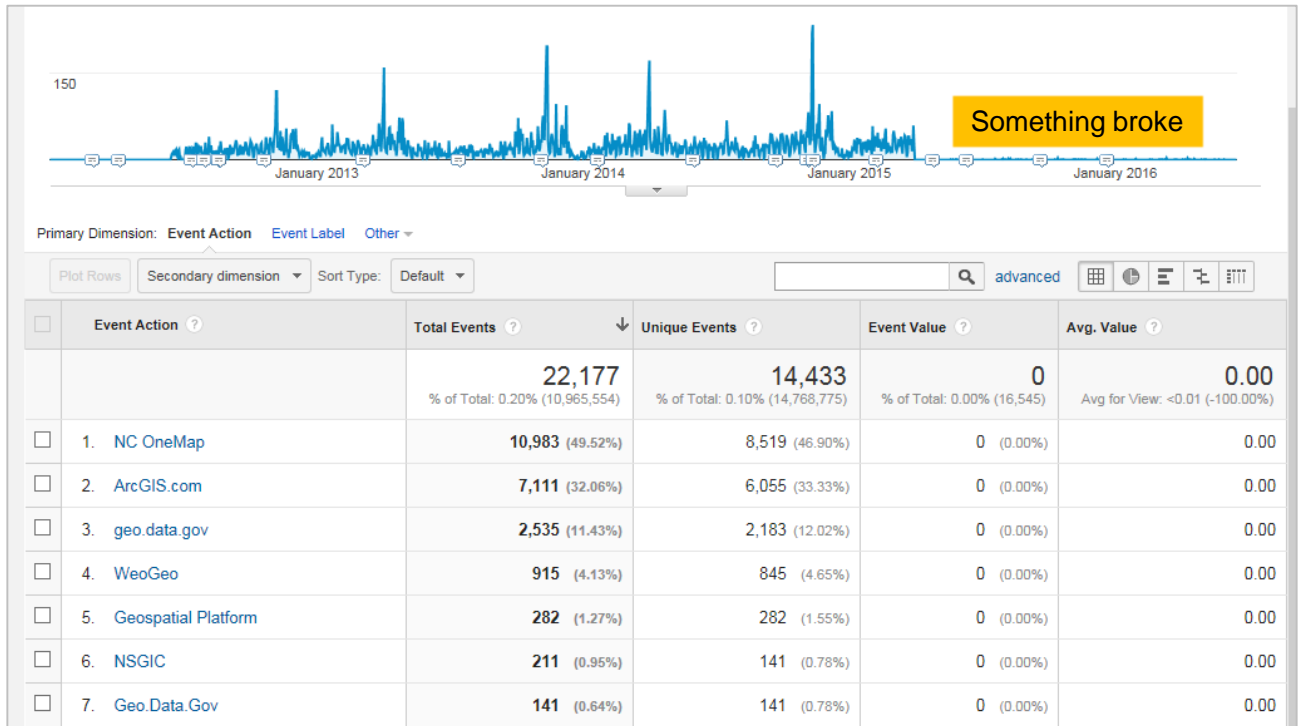
95% cut in time spent cataloging

100% cut in stress over cataloging



# Google Analytics

37,748 initial searches. Subsequent searches are tracked by the URL of the last search.



# Problems & Concerns

ArcGIS.com connection depends on a “sandbox” –  
gptogc.esri.com

- screen scraping may be a possibility if it goes away

Would be nice if ArcGIS.com individual dataset displays could provide more metadata (especially Dates)

“Relevance” sorting of search results are not reliable

Lack of error handling in the php code

# Feedback and Suggestions

Are there any other similar services out there?

Ideas for improvement?

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