OpenGeoportal

OpenGeoportal Metadata

Marc McGee
Harvard Library
OGP Metadata Working Group

Metadata Standards

- Federal Geographic Data Committee – Content Standard for Digital Geospatial Metadata (FGDC CSDGM) Version 2.0, 1998
- ISO : Geographic Information – Metadata 19115:2003 / 19139 / 19110 / 191* – North American Profile
- MARC21 – Library cataloging standard
- MODS
- Dublin Core / DCLite4G
- Many other possibilities …

Critical Elements for Discovery and Identification

- Title
- Spatial extent – bounding box coordinates
- Originator(s)
- Publisher
- Date
- Keywords – theme & place
- Data type
- Access restriction
- Host repository
- Online location

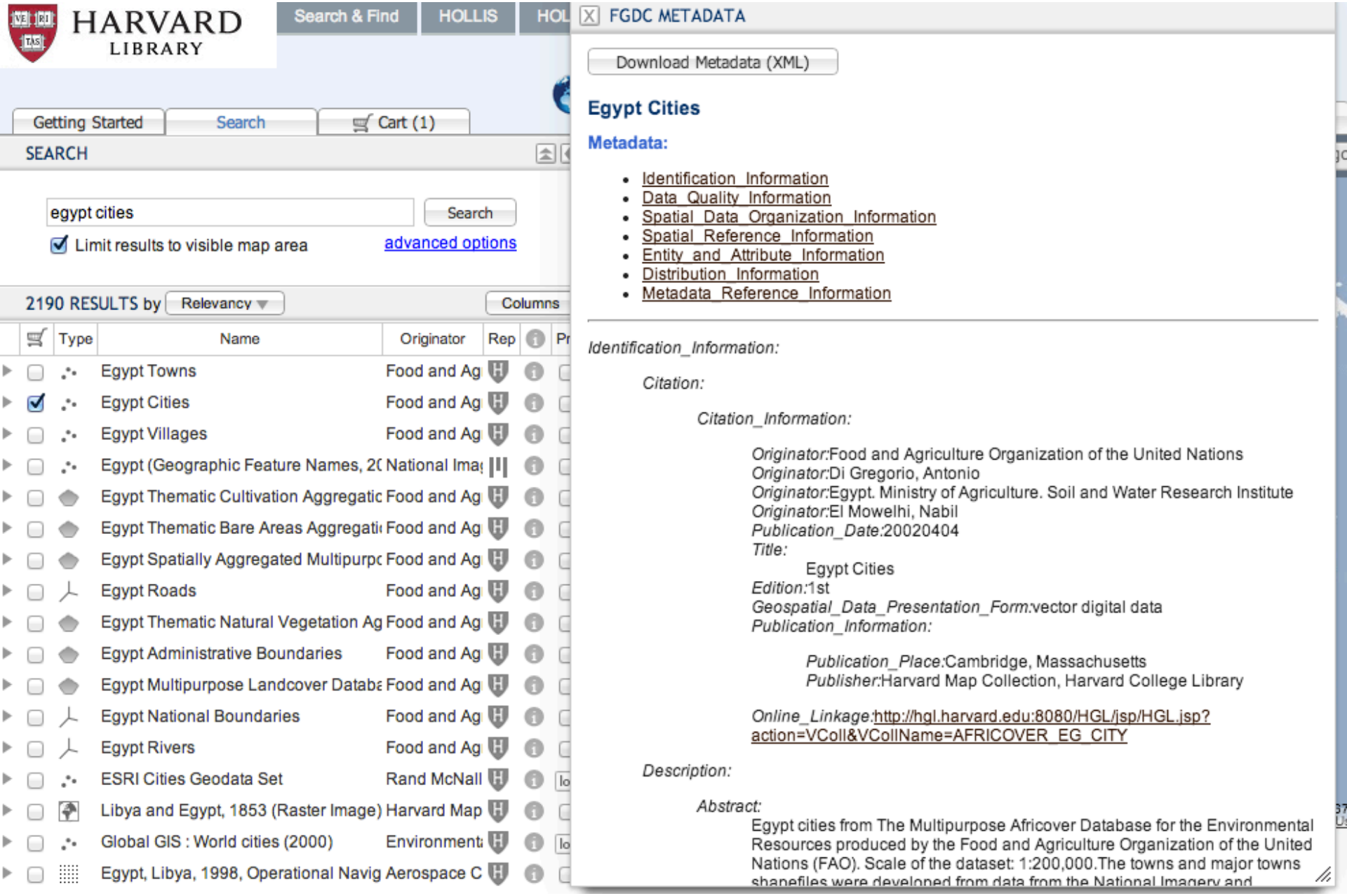
OGP Solr Schema

- XML-based, layer-level description
- Indexes the critical discovery elements
- Stores original metadata for display/delivery

https://code.google.com/p/opengeoportal/wiki/Solr

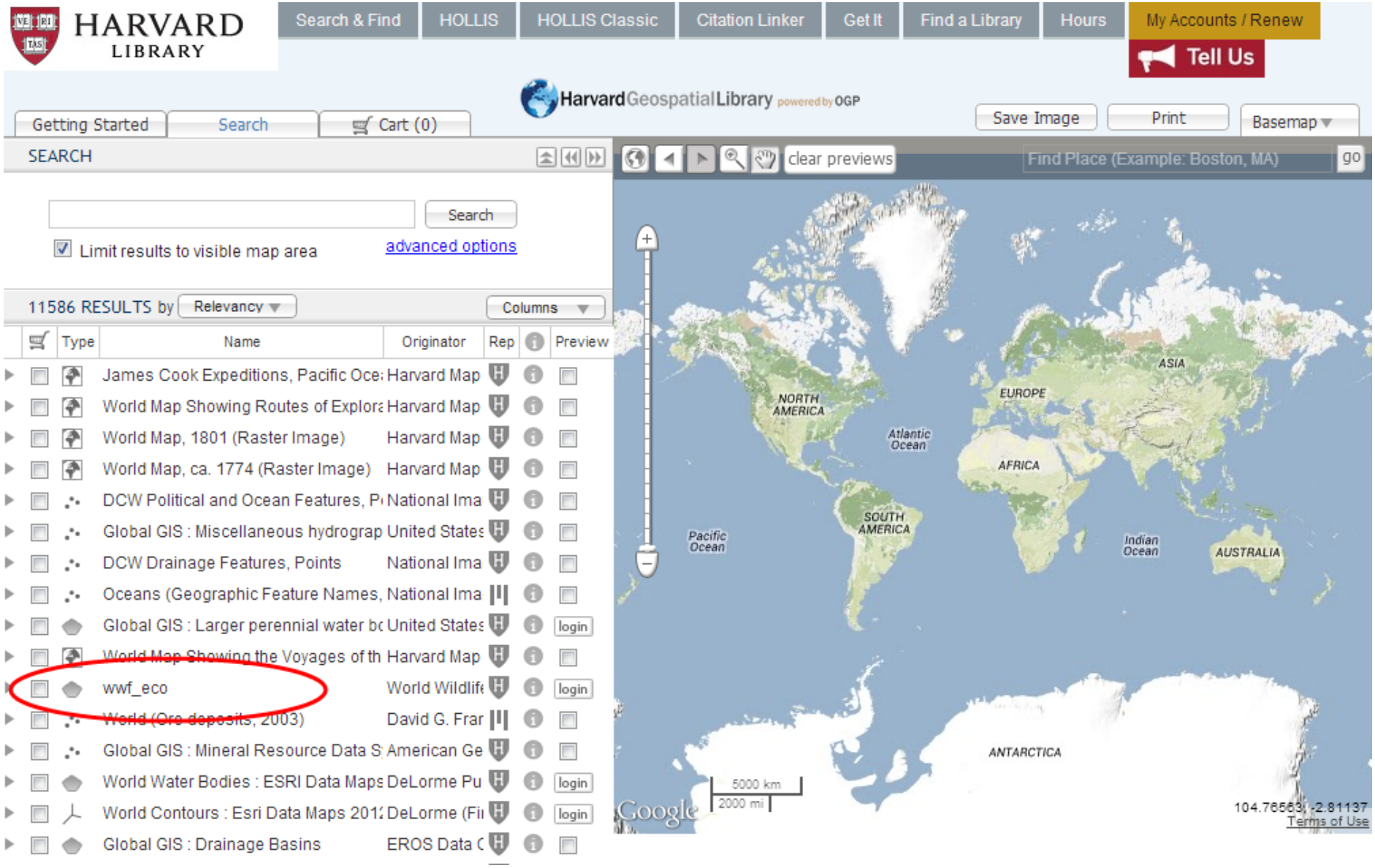
<doc>
<field name="LayerId">2025</field>
<field name="Name"></field>
<field name="CollectionId">initial collection</field>
<field name="Institution">Harvard</field>
<field name="InstitutionSort">Harvard</field>
<field name="Access">Public</field>
<field name="DataType">Point</field>
<field name="DataTypeSort">Point</field>
<field name="Availability">Online</field>
<field name="LayerDisplayName">Egypt Cities</field>
<field name="LayerDisplayNameSort">Egypt Cities</field>
<field name="Publisher">Harvard Map Collection, Harvard College Library</field>
<field name="PublisherSort">Harvard Map Collection, Harvard College Library</field>
<field name="Originator">Food and Agriculture Organization of the United Nations</field>
<field name="OriginatorSort">Food and Agriculture Organization of the United Nations</field>
<field name="ThemeKeywords">Human Settlements Cities and towns location</field>
<field name="PlaceKeywords">Egypt</field>
<field name="Abstract">Egypt cities from The Multipurpose Africover Database for the Environmental Resources produced by the Food and Agricultu\
re Organization of the United Nations (FAO). Scale of the dataset: 1:200,000.

The towns and major towns shapefiles were developed from data from the National Imagery and Mapping Agency (NIMA).</field>
<field name="Location">http://arrowsmith.mit.edu:8080/geoserver/gwc/service/wms</field>
<field name="MaxY">31.35</field>
<field name="MinY">24.083333</field>
<field name="MinX">27.233333</field>
<field name="MaxX">33.8</field>
<field name="CenterX">30.5166665</field>
<field name="CenterY">27.716666500000002</field>
<field name="HalfWidth">3.2833334999999995</field>
<field name="HalfHeight">3.633333500000001</field>
<field name="Area">47.717782388889006</field>
<field name="ContentDate">2002-01-01T01:01:01Z</field>
<field name="FgdcText"> ... the actual FGDC document ... </field>
</doc>


HARVARD LIBRARY
Search & Find
HOLLIS
Getting Started
Search
Cart (1)
SEARCH
egypt cities
Search
Limit results to visible map area
advanced options
2190 RESULTS by Relevancy
Columns
Type
Name
Originator
Rep
Egypt Towns Food and Ag
Egypt Cities Food and Ag
Egypt Villages Food and Ag
Egypt (Geographic Feature Names, 2(National Ima
Egypt Thematic Cultivation Aggregatic Food and Ag
Egypt Thematic Bare Areas Aggregati Food and Ag
Egypt Spatially Aggregated Multipurpc Food and Ag
Egypt Roads Food and Ag
Egypt Thematic Natural Vegetation Ag Food and Ag
Egypt Administrative Boundaries Food and Ag
Egypt Multipurpose Landcover Databa Food and Ag
Egypt National Boundaries Food and Ag
Egypt Rivers Food and Ag
ESRI Cities Geodata Set Rand McNall
Libya and Egypt, 1853 (Raster Image) Harvard Map
Global GIS : World cities (2000) Environmenti
Egypt, Libya, 1998, Operational Navig Aerospace C
FGDC METADATA
Download Metadata (XML)
Egypt Cities
Metadata:
Identification_Information
Data_Quality_Information
Spatial_Data_Organization_Information
Spatial_Reference_Information
Entity_and_Attribute_Information
Distribution_Information
Metadata_Reference_Information
Identification_Information:
Citation:
Citation_Information:
Originator:Food and Agriculture Organization of the United Nations
Originator:Di Gregorio, Antonio
Originator:Egypt. Ministry of Agriculture. Soil and Water Research Institute
Originator:El Mowelhi, Nabil
Publication_Date:20020404
Title:
Egypt Cities
Edition:1st
Geospatial_Data_Presentation_Form:vector digital data
Publication_Information:
Publication_Place:Cambridge, Massachusetts
Publisher:Harvard Map Collection, Harvard College Library
Online_Linkage:http://hgl.harvard.edu:8080/HGL/jsp/HGL.jsp?action=VColl&VCollName=AFRICOVER_EG_CITY
Description:
Abstract:
Egypt cities from The Multipurpose Africover Database for the Environmental Resources produced by the Food and Agriculture Organization of the United Nations (FAO). Scale of the dataset: 1:200,000.The towns and major towns

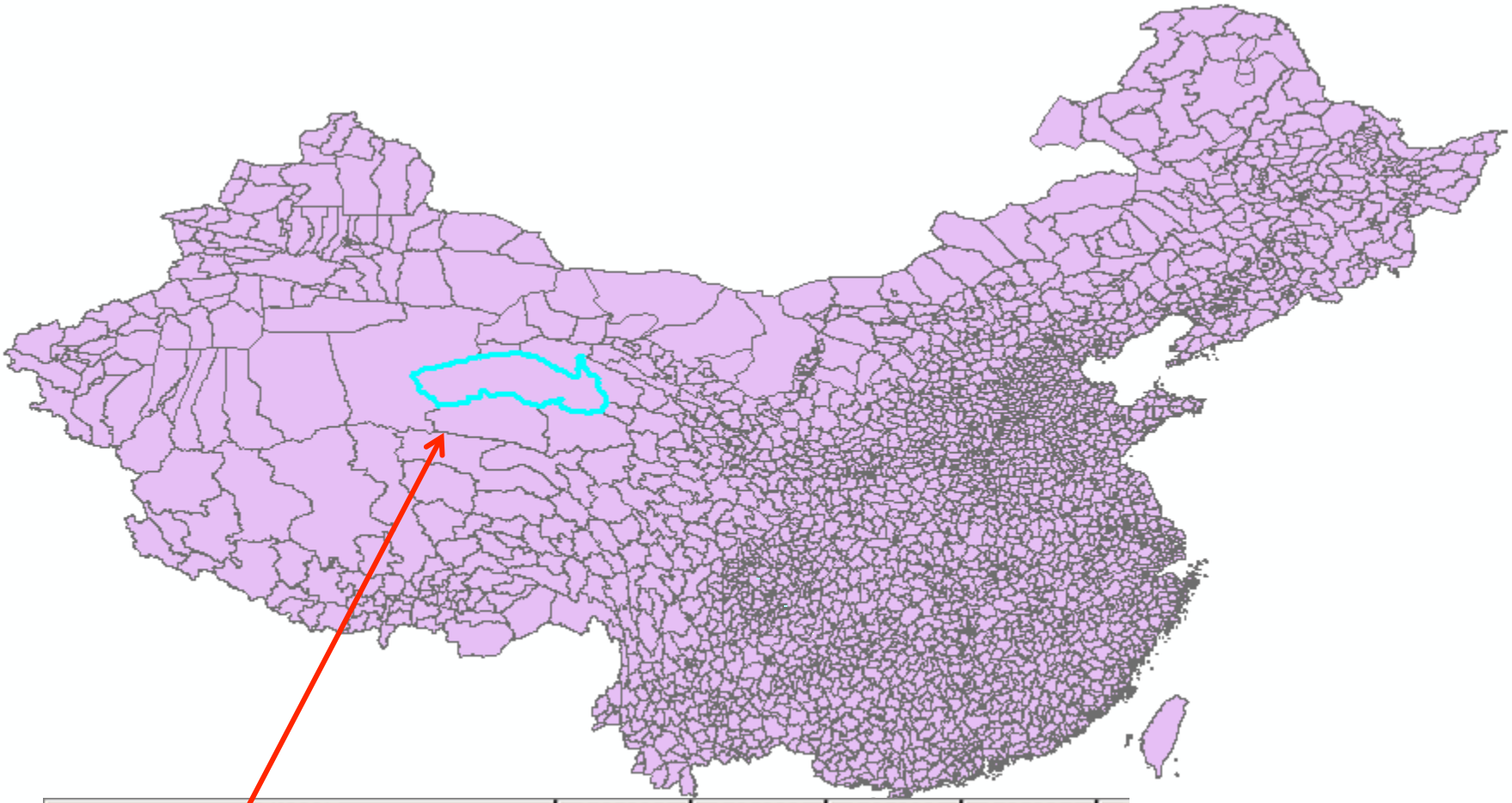
Shared Conventions for Content

- Title – Feature type, Location, Date (not filename)
- Originators – ESRI, E.S.R.I., Esri, ESRI Inc. Environmental Systems Research Institute (Redlands, Calif.)
- Theme/place keywords – ISO 19115 theme keys, GNIS/GNS gazetteers
- Publishers – U.S. Census Bureau, Census Bureau …
- Data type – vector, raster, tabular, map (georeferenced, digital, paper), remote-sensing image …
- Coordinates – bounding box in decimal degrees


HARVARD LIBRARY
Search & Find
HOLLIS
HOLLIS Classic
Citation Linker
Get It
Find a Library
Hours
My Accounts / Renew
Tell Us
HarvardGeospatialLibrary powered by OGP
Getting Started
Search
Cart (0)
Save Image
Print
Basemap
SEARCH
clear previews
Find Place (Example: Boston, MA)
go
Search
Limit results to visible map area
advanced options
11586 RESULTS by Relevancy
Columns
Type
Name
Originator
Rep
Preview
James Cook Expeditions, Pacific Oce
Harvard Map
World Map Showing Routes of Explor
Harvard Map
World Map, 1801 (Raster Image)
Harvard Map
World Map, ca. 1774 (Raster Image)
Harvard Map
DCW Political and Ocean Features, P
National Ima
Global GIS : Miscellaneous hydrograp
United State
DCW Drainage Features, Points
National Ima
Oceans (Geographic Feature Names,
National Ima
Global GIS : Larger perennial water b
United State
login
World Map Showing the Voyages of th
Harvard Map
wwf_eco
World Wildlif
login
World (Ore deposits, 2003)
David G. Frar
Global GIS : Mineral Resource Data S
American Ge
World Water Bodies : ESRI Data Maps
DeLorme Pu
login
World Contours : Esri Data Maps 201
DeLorme (Fi
login
Global GIS : Drainage Basins
EROS Data C
NORTH AMERICA
EUROPE
ASIA
Atlantic Ocean
AFRICA
SOUTH AMERICA
Pacific Ocean
Indian Ocean
AUSTRALIA
ANTARCTICA
5000 km
2000 mi
Google
104.76563, -2.81137
Terms of Use

Critical Elements for Dataset Use

- Abstract / purpose of dataset
- Terms of use
- Spatial references - coord system / projection
- Spatial data organization – vector type / features; raster type / resolution
- Source information – citation, scale, date, contribution
- Data quality information (if available) – accuracy and completeness
- Process steps
- Attribute definitions



ENAME	A101001	A101002	A101003	A101004	A
Dehui Shi	239030	237531	1499	878349	
Dejiang Xian	106169	106062	107	388639	
Delingha Shi	26681	24249	2432	83585	
Dengfeng Shi	151689	147333	4356	609085	
Dengkou Xian	35694	35317	377	117561	
Dengta Shi	157322	156225	1097	502149	

Description | Spatial | Attributes

Details for CH2000_A_A

- **Description**
- **Attributes**
  - **CH2000_A_A.AREA**
  - **GBCITY**
  - **GBPROV**
  - **GBCNTY**
  - **CNAME**
  - **ENAME**
    - *Definition:*
      English name of County
    - *Definition Source:*
      China Data Center
  - **A101001**
    - *Definition:*
      Total N of Households by County
    - *Definition Source:*
      China Data Center
  - **A101002**
    - *Definition:*
      Total N of Family Households by County
    - *Definition Source:*
      China Data Center
  - **A101003**
    - *Definition:*
      Total N of Colle
    - *Definition Sourc*
      China Data Cen
  - **A101004**
    - *Definition:*
      Total Population by County
  - **A105001**
    - *Definition:*
      Total Population by County
    - *Definition Source:*
      China Data Center
  - **A105002**
    - *Definition:*
      Total Males by County
    - *Definition Source:*
      China Data Center
  - **A105003**
    - *Definition:*
      Total Females by County
    - *Definition Source:*
      China Data Center
  - **A105004**
    - *Definition:*
      Total Agricultural Population by County
    - *Definition Source:*
      China Data Center
  - **A105005**
  - **A105006**
  - **A105007**

ENAME	A101001	A101002	A101003	A101004	A
Dehui Shi	239030	237531	1499	878349	
Dejiang Xian	106169	106062	107	388639	
Delingha Shi	26681	24249	2432	83585	
Dengfeng Shi	151689	147333	4356	609085	
Dengkou Xian	35694	35317	377	117561	
Dengta Shi	157322	156225	1097	502149	

Metadata Creation Workflow

- Gather existing metadata / documentation / code books related to dataset
- Create/apply metadata templates
  esp. for series-type data or for institutionally appropriate information
- Layer-level description in XML using local standards
  - e.g. title, abstract, access, keyword thesauri, local processing steps, etc.

Metadata Creation Workflow pt. II

- Quality control / quality assurance / XML validation
- Load metadata into OGP

Metadata Authoring Tools

- Combination of ArcCatalog, Extensions, & text/ xml editors
- Overview of OGP contributors' md practices:
  http://tiny.cc/4asv7w [google doc]
- OGP Metadata Toolkit
  - Subset of critical elements
  - Guided metadata creation
  - Search and re-use existing metadata
  - Transform between metadata standards

Metadata Working Group (MWG)

- Membership, Governance,
  Notes from National Summit
  http://opengeoportal.org/working-groups/metadata/

- Communication on the general OGP listserv
  http://opengeoportal.org/listservs/

- Voting members to meet quarterly virtually–
  membership is voluntary & open

MWG Initiatives

- Best practices and standards documentation
  - Spatial metadata, FGDC, ISO, MARC, MODS, guide for vendors/data providers
- Thesaurus & controlled vocabularies
- Metadata creation coordination :

  Tracking Sheet: http://tiny.cc/fr4q6w
  Tracking Guide: http://tiny.cc/572j6w
- Metadata registry : http://tiny.cc/r44q6w
- MWG Action Item tracking : http://tiny.cc/p73u6w

OGP Metadata Resources

- Metadata Creation Guide
  http://opengeoportal.org/working-groups/metadata/metadata-creation-guide/

- Metadata Creation Resources
  http://opengeoportal.org/working-groups/metadata/metadata-resources/

- OGP listserv

Future enhancements with User-generated data and metadata

- User ratings + use statistics + co-occurrence of downloads = data recommendations

- User comments

  How did you use the data? What were the limitations/results?

- Data consumers into data creators/catalogers

  Metadata toolkit for data creators

OpenGeoportal

Questions? Discussion …

Marc McGee
Geospatial Resources Cataloger
Harvard Library
OGP Metadata Working Group
mmcgee@fas.harvard.edu