

Introduction

Geospatial data and methodologies are becoming increasingly popular in fields beyond Geography. The exponential increase in geospatial data sets available to users and varied platforms on which they are served can make data searches difficult and leave some data undiscovered, particularly for users with more limited knowledge of geospatial data sources.

The Big Ten Academic Alliance (BTAA), which provides unique opportunities for and supports collaborative efforts among Big Ten member universities, initiated the Geospatial Data Discovery Project to enhance geospatial data discoverability and access among member institutions. Launched to the public in the summer of 2016, the BTAA Geoportal has over 5,000 geospatial records, all harmonized into a uniform metadata standard. Discover them at <http://geo.btaa.org>.

What makes this project different?

- Multi-institutional (12 institutions across 9 states)
- Focused on spatial search
- Combines datasets and physical maps

Project Goals

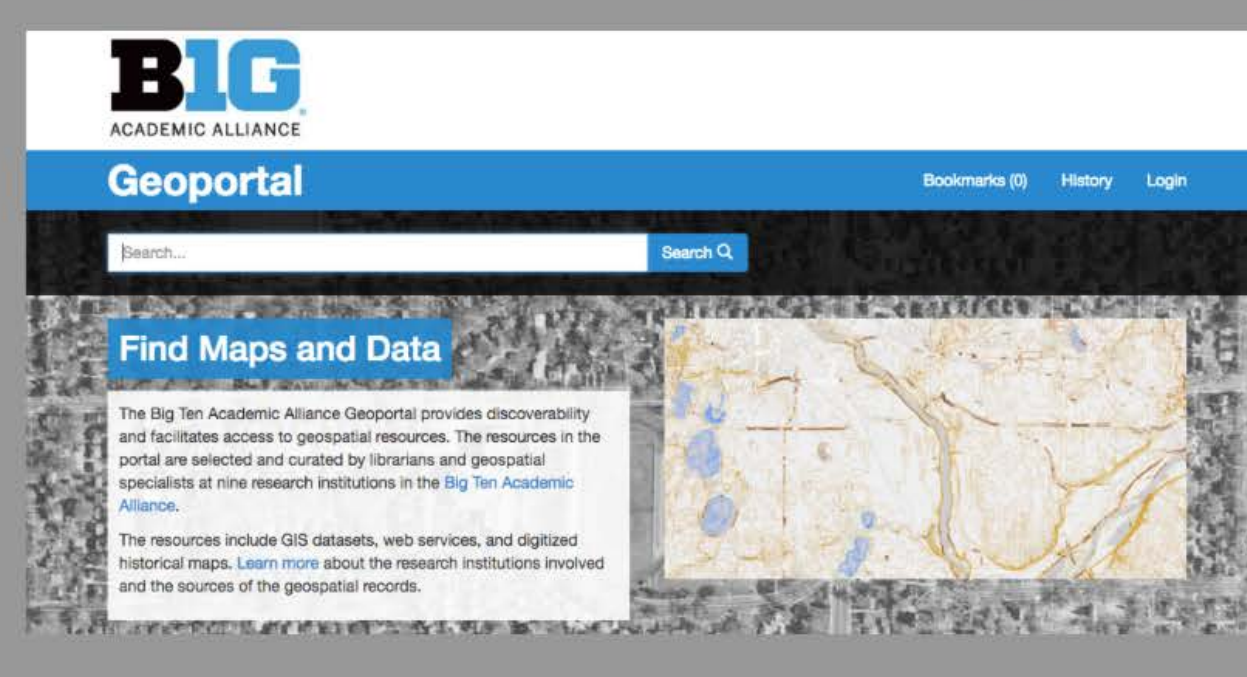
A public collection of harmonized geospatial metadata



ISO 19139 for GIS records (robust, international standard)

GeoBlacklight for GIS records and digitized maps (Dublin Core with extension for spatial elements)

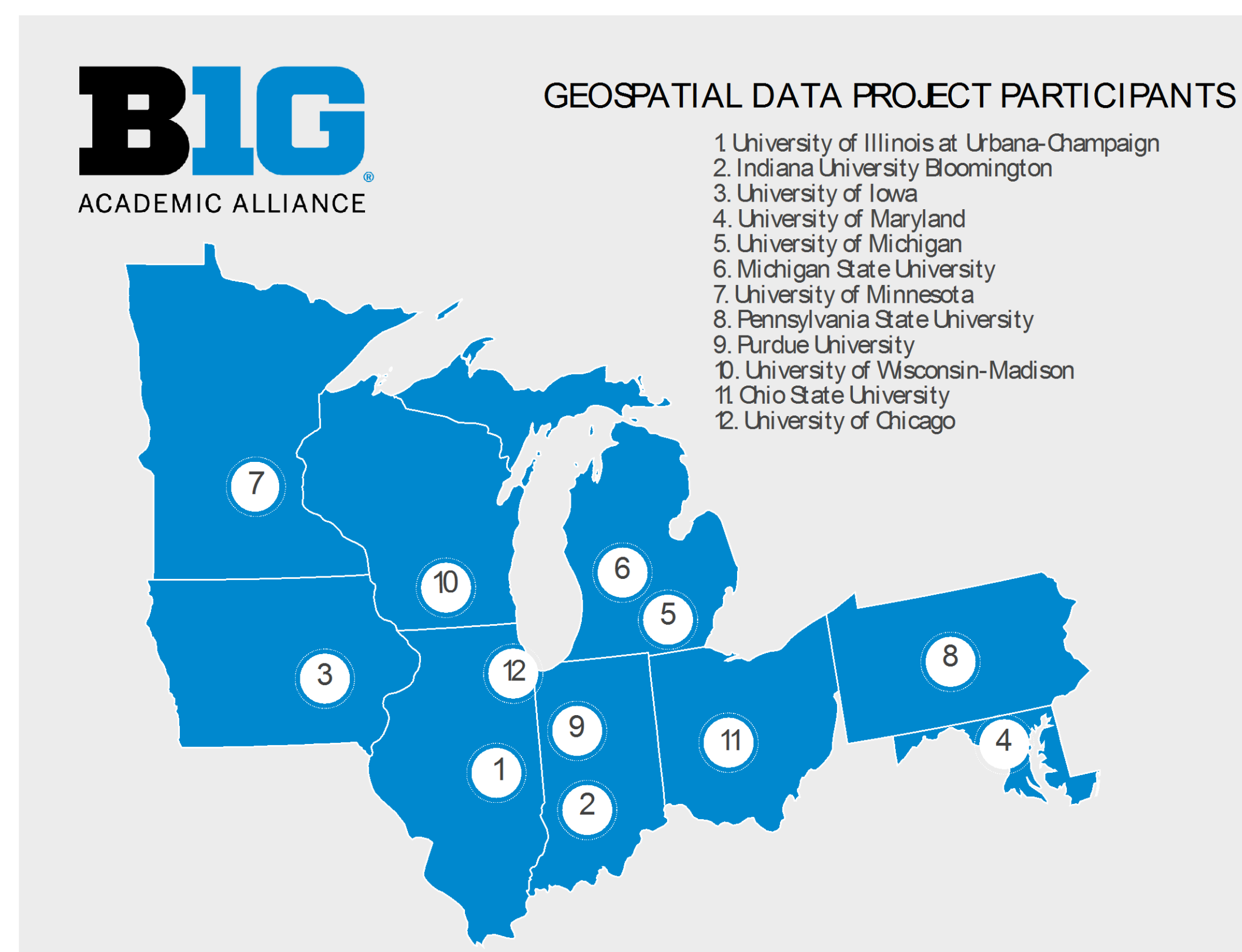
A shared geoportal for institutions across the Big Ten



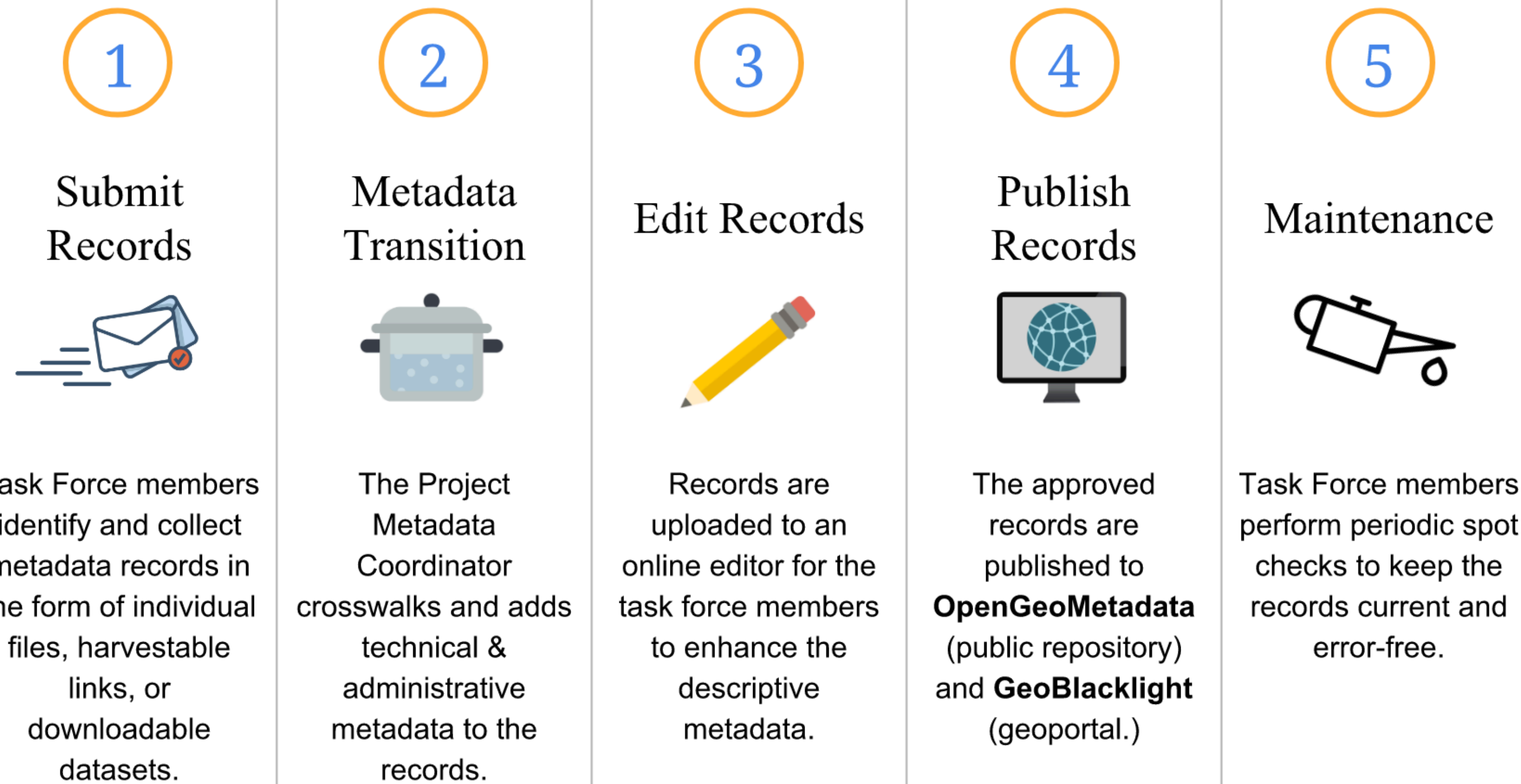
Tools & Workflows

Participating Institutions

Twelve of the fifteen Big Ten Academic Alliance institutions have come together to develop and populate a geoportal for use by all member institutions.



Collaborative Metadata Workflows



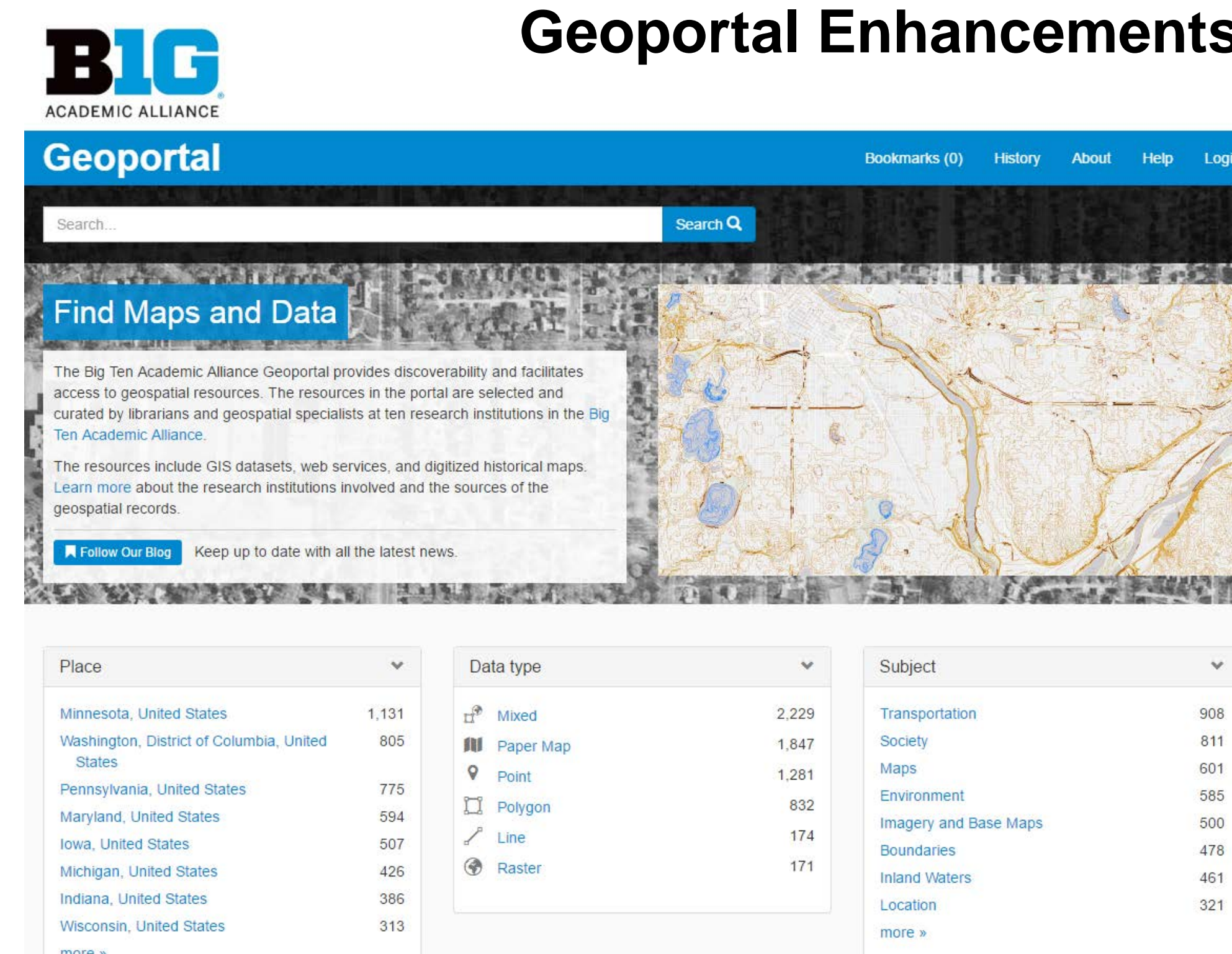
Metadata Steering Group

Maintenance and enhancement are an ongoing focus for the Metadata Steering Group. Data are constantly in flux in the metadata source sites (such as Maryland's iMap), and workflows have been developed for checking and updating broken links, as well as for re-acquisition and merging the data periodically in order to catch these updates.

The Metadata Steering Group is still looking at how to best normalize uncontrolled keywords that come from a multitude of sources. A first step as been using synonym files in the Solr search index to account for the many ways a place term might be spelled.

Type	Element Name	Best Method	Values
Descriptive Metadata - ISO 19139	Title	CSW Update	Preferred format is Theme: place, temporal extent Ex. "Roads: Minneapolis, Minnesota, 2010-2012" If the dataset is updated continuously or its date is ambiguous, leave it out of title. Place names should be written out to the state level.
	Abstract	CSW Update	At minimum, this is a reiteration of the title in sentence format. Other relevant information, such as data creation methods, data sources, available formats, and special licenses, may also be written here.
	Topic Category	CSW Update	Chosen from preset ISO Topic codes. See Appendix 3.
	Originator	CSW Update	The person or organization that created the dataset.
	Publisher	CSW Update	The organization that made the resource available.
	Publication Date	CSW Update	Single date in the form yyyy-mm-dd.
	Revision Date	CSW Update	Single date in the form yyyy-mm-dd.
	Temporal Extent	CSW Update	Date range with option for Start date and End date, each in the form yyyy. This represents the "Ground Condition" of the data, meaning the time period it was collected or is intended to represent. If there is only one year, enter the same value for both the Temporal Extent Start and End. If the data is continually updated, the second value can be left blank.
	Place Keywords	CSW Update	Specify out to the country: Baltimore, Maryland, United States. Values should match an entry from GeoNames.org
	Theme Keywords	CSW Update	Use sentence case - first word capitalized, subsequent words lower case. Ex. "Cities and towns"
Online links	CSW Update	URLs for various links: Information (landing page), Download (direct file download), WMS, Esri Rest services.	

Geoportal Enhancements



Since the launch, the task force, led by the Interface Steering Group, has made adjustments to the browsing facets on both the front page of the site, as well as on the results pages, to better customize search and browsing refinements to the Geoportal's data.

An icon for the institution that submitted each dataset/map is show in the results.

1. 108th Congressional Districts for the Delaware...
2. Abandoned Vehicle Inspection Area: Washingt...
3. Abandoned Vehicle Private Last 30 Days: Was...
4. Abandoned Vehicle: Washington, D.C., Last 3...
5. Aerial Forest Survey Disease/Pest: Michigan, ...
6. Agricultural Chemical Incidents: Minnesota, 2...
7. Agricultural Designations - Permanently Prese...
8. Agricultural Designations - Priority Preservatio...
9. Agricultural Land Preservation Foundation 20...
10. Agricultural Land Preservation Foundation 2...

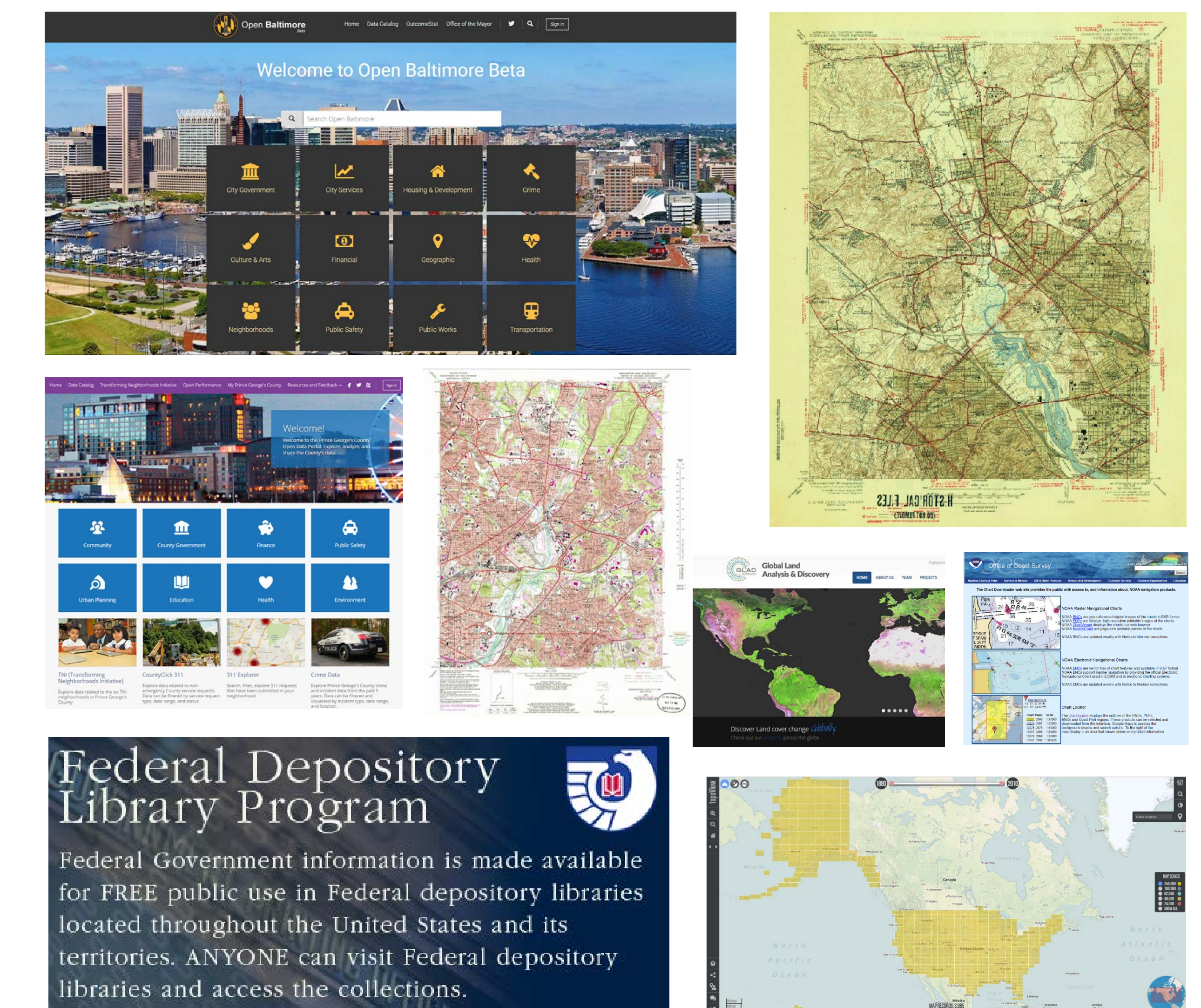
Collection Development Steering Group

The Collection Development Steering Group focuses on current and future resource development in the geoportal with an emphasis on Big Ten University regional resources. Resources include geospatial datasets, georeferenced maps, library holdings, university-developed datasets, and any other datasets containing spatial information.

The group is working on a strategic plan to guide collection decisions. Collections identified for inclusion now and in the near future include large state, city, and county open data repositories, georeferenced maps, and Federal Depository Library Program (FDLP) holdings, including USGS Topo Maps and NOAA Nautical Charts. In particular, the addition of electronic FDLP materials will provide greater access to patrons in support of FDLP guidelines and allow us to free up floor space.

To support strategic plan development and collection decisions, the group developed a Gap Analysis Tool to determine immediate needs per institution.

Collections Identified for Future Inclusion



Gap Analysis by ISO Topic Category

	Illinois	Indiana	Iowa	Maryland	Michigan	Michigan State	Minnesota	Penn State	Purdue	Wisconsin
Farming	X			1		2	2	X	X	1
Biota				1	X	1	2	X	X	2
Boundaries	X	2	X	2	X	3	3	X	X	3
Climatology, Meteorology and Atmosphere				1		1	1	X	X	0
Economy			X	2	X	3	1	X	X	2
Elevation	X			2	X	3	2	X	X	1
Environment				3	X	2	2	X	X	2
Geoscientific Information	X			2	X	2	2	X	X	1
Health			X	1		2	1	X	X	1
Imagery and Base Maps	X			1	X	2	3	X	X	1
Intelligence and Military				2	X	1	1		X	0
Inland Waters				2		3	2			3
Location	X		X	2	X	3	2	X	X	3
Oceans				2		0	0			0
Planning and Cadastral		1		1	X	3	3	X	X	3
Society			X	3	X	3	3	X	X	3
Structure	X		X	1	X	2	2	X	X	3
Transportation			2	X	3	X	3	X	X	3
Utilities and Communication				X	2	X	2	X	X	0

Acknowledgements

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