

# GeoBlacklight, a new discovery platform for geospatial data

ESRI USER CONFERENCE 2015

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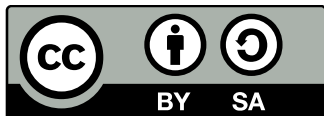


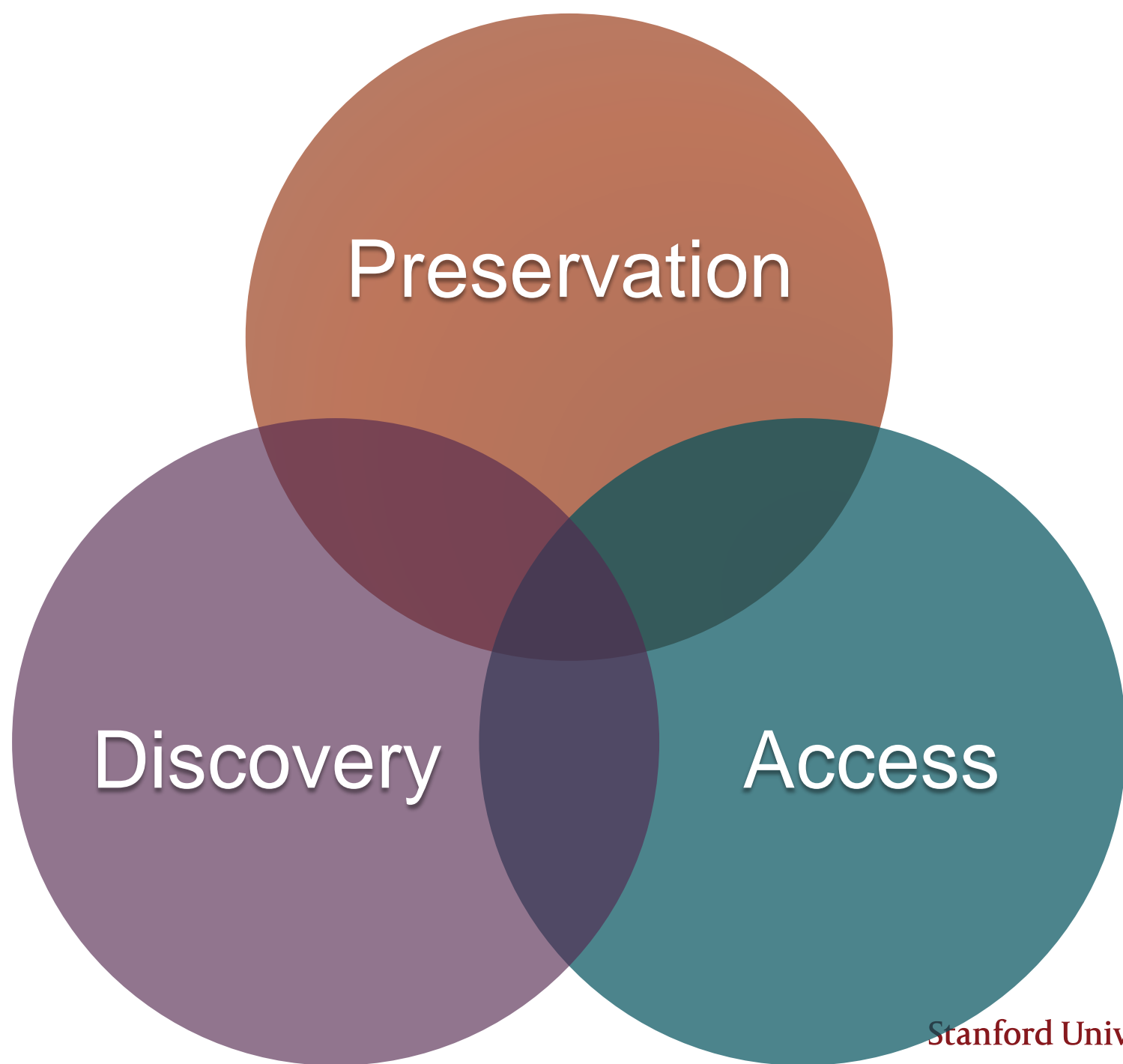


Photo credit: João Pacheco



Stanford Library Reading Room, 1940's  
© Stanford University

Libraries have a unique  
opportunity in this space





## Emergence of GeoBlacklight

- Focus on the end user
- We found others with the same needs as us
- Do one thing really well
- Collaborative design process
- Align technology stacks
- Build on the foundation of an existing ecosystem



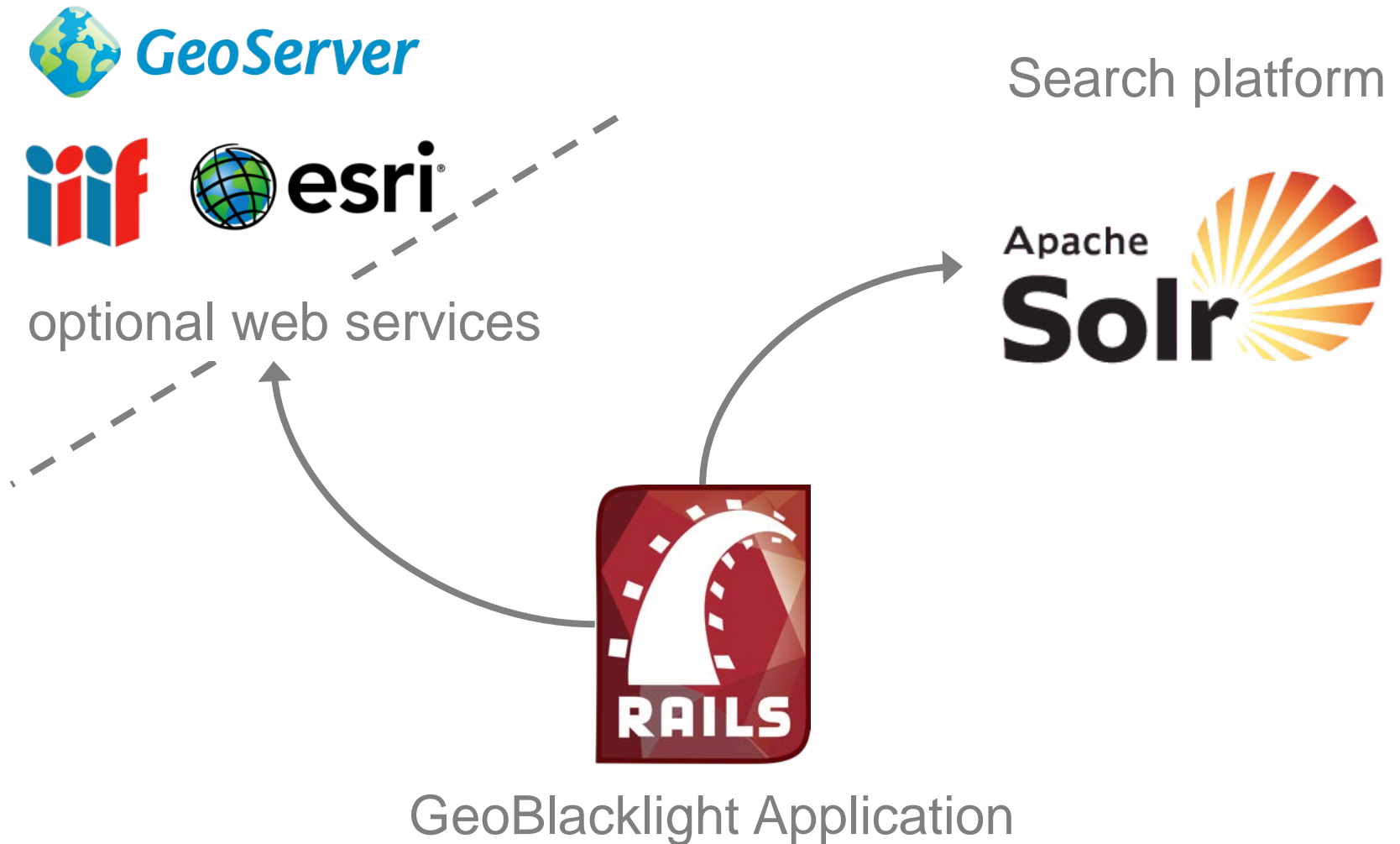
Photo credit: Todd Quackenbush

## GeoBlacklight

- A Ruby on Rails Engine, built on the popular open source discovery platform Blacklight
- Installable with a single command\*

```
$ rails new my-app -m  
https://raw.githubusercontent.com/geoblacklight/geoblacklight/m  
aster/template.rb
```

## Software Stack



## GeoBlacklight – Built for sustainability

- Semantic versioning
- Tested code + code reviews
- Sustainability plan in place
- Customizable with SASS and Twitter Bootstrap
- Developed in partnership between MIT, Princeton, and Stanford. Pull requests welcome!



# Designed for discovery – powerful search using Solr

The screenshot displays the EarthWorks beta website. At the top, the browser address bar shows <https://earthworks.stanford.edu>. The header includes the Stanford University Libraries logo and the text "EarthWorks beta". On the right side of the header, there are links for "pjreed", "Feedback", "BOOKMARKS (2)", "SAVED SEARCHES", and "HISTORY".

The main content area features a large search box with the text "Find maps and data" and "Get started here" above it. The search box has a "Search Q" button. Below the search box, there are two sections for browsing:

- Browse by category**: This section includes two icons. The first is a house icon labeled "Institution" with a list of universities: [Harvard](#), [Tufts](#), [Columbia](#), [Minnesota](#), [MIT](#), [Stanford](#), [MassGIS](#), [Berkeley](#), and [more »](#). The second is a download icon labeled "Data type" with a list of data types: [Polygon](#), [Line](#), [Point](#), [Raster](#), [Mixed](#), and [more »](#).
- Browse by location**: This section features a world map with a "Search here" button in the top right corner. The map shows various continents and countries, with labels for "NORTH AMERICA", "SOUTH AMERICA", "AFRICA", "ASIA", and "AUSTRALIA".

# Stable search urls, unique resource urls

The screenshot displays the EarthWorks beta search interface. The top navigation bar includes the Stanford University Libraries logo, the text "EarthWorks beta", and links for "BOOKMARKS (2)", "SAVED SEARCHES", and "HISTORY". A search bar contains the term "roads" and a "Search" button. Below the search bar, a "Limit your search" section on the left offers filters for Institution, Author, Publisher, Subject, Place, and Year. The Year filter is expanded, showing a range from 2000 to 2010 with a "Limit" button and a histogram. The main search results area shows a list of 17 items, including "World Roads", "Roads: Uganda, 2008-2010", "Ethiopia Roads", "Kenya Roads", "Sudan Roads", "Mozambique Roads", and "Major Roads Nairobi 2010". Each item has a unique URL and a "Search" button. A map of Africa is visible on the right side of the interface.

STANFORD UNIVERSITY LIBRARIES

EarthWorks beta

BOOKMARKS (2) SAVED SEARCHES HISTORY

roads Search

Limit your search

Institution >

Author >

Publisher >

Subject >

Place >

Year >

2000 to 2010 X 30

2000 - 2010 Limit

2000 2002 2004 2006 2008 2010

You searched for: Keyword > roads X Access > Public X Data type > Line X Year > 2000 to 2010 X Start Over

Bounding Box > 10.371094 -16.972741 47.636719 24.20689 X

« Previous | 11 - 20 of 30 | Next »

Sort by relevance ▼ 10 per page ▼

- 11. [World Roads](#)
- 12. [Roads: Uganda, 2008-2010](#)
- 13. [Ethiopia Roads](#)
- 14. [Kenya Roads](#)
- 15. [Sudan Roads](#)
- 16. [Mozambique Roads](#)
- 17. [Major Roads Nairobi 2010](#)

Search when I move the map

# Inspect, preview, and download your data

[←](#) [↻](#) <https://earthworks.stanford.edu/catalog/stanford-sv534fc7879> [★](#) [☰](#)

**EarthWorks** beta BOOKMARKS (3) SAVED SEARCHES HISTORY

« Previous | 5 of 16 | Next » Back to Search Start Over

## County Boundaries: Uganda, 2006

**Author(s)** Uganda Bureau of Statistics

**Description** This polygon shapefile represents the county boundaries for Uganda. These are the Level 4 administrative boundaries (ADM4). This layer is based on 2006 data. These data are intended for researchers, students, policy makers and the general public for reference and mapping purposes, and may be used for basic applications such as viewing, querying, and map output production.

**Publisher** Uganda Bureau of Statistics

**Place(s)** [Uganda](#)

**Subject(s)** [Counties](#), [Administrative and political divisions](#), [Boundaries](#)


**Year** 2006

**Held by** [Stanford](#)

**More details at** <http://purl.stanford.edu/sv534fc7879>



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Attribute	Value
Click on map to inspect values	

**Tools**

- ☐ Bookmark
-  [Email](#)
-  [Web services](#)

Download Shapefile 

Stanford University

## Other GeoBlacklight features

- JSON API
- Plugin ecosystem
- Responsive and accessible
- User authentication and restricted content
- Extendable
- Not just for academia



Go check out Stanford's instance of GeoBlacklight!

<https://earthworks.stanford.edu>

## GeoBlacklight has spawned new software projects

- GeoBlacklight-Icons – the icon font used in GeoBlacklight
- GeoBlacklight-Docker – install GeoBlacklight using Docker
- GeoMonitor – A WMS monitoring service that integrates with GeoBlacklight
- GeoCombine – A Ruby toolkit for managing geospatial metadata





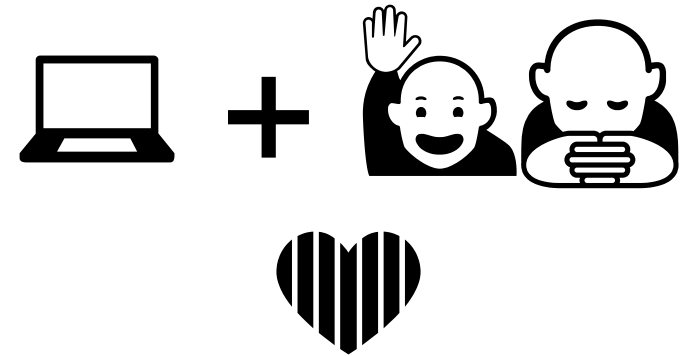
Photo credit: Jay Mantri

The big picture

Stanford University

# OpenGeoMetadata

- Uses GitHub as a platform for metadata sharing and collaboration
- Uva, Princeton, Stanford, Tufts, and Harvard have contributed metadata for over +50,000 layers (+81,000 metadata files)
- Shared toolkits forming around metadata process and transformation in Ruby and Python



<https://github.com/OpenGeoMetadata/metadatarepository>

## What's next?

- Delayed jobs, background downloading
- Tighter integration with OpenGeoMetadata
- Dataset grouping support
- Index map feature
- Potential for CSW support

Thank you.

For tutorials, information, and more checkout GeoBlacklight at:

<http://geoblacklight.org>

Code repositories available at:

<https://github.com/geoblacklight>

Or on Twitter:

@GeoBlacklight