Modular, Distributed Spatial Metadata Repository on the Services Principle

GIS Day 2008
2008.Nov.19
premise #1: datasets are hard to find

starting a project

quick access to base layers

common data across campus

Purdue-generated research and data
premise #2: we’re bad, lazy people (busy, i mean)

uploading datasets to centralized storage a bust
providing intuitive, fast access to data stores takes effort
exposing datasets to search engines takes time
and go ahead and forget about the semantic and geo webs
premise #3: **if the thing can just be described**

that is, **if datasets have proper metadata**

the data can stay where they are

**a machine (or librarian) can read their metadata**

and handle the ugly details of access
ongoing work at Purdue Libraries GIS

geometadata repository

built on open source GeoNetwork*

...but enhanced with GUI, custom indexing, web services

and plugged into other semantic metadata initiatives

*geonetwork-opensource.org
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OpenLayers dynamically renders either WMS/WFS or the spatial footprint of static layers. WMS layers are cached/served via TileCache, significantly improving performance in OL as well as other clients, like Google Earth, WorldWind et al.

Simple keyword search, on customizable Lucene index. Advanced users can do command-line limiting (e.g. "cat:interactive" or "type:download").

All search hits added to inline OpenLayers viewer. Records are locally-produced or harvested via OAI-PMH, CSW, etc. from other metadata systems.

Pre-alpha prototype.
services out/services in

catalog itself searchable from other clients

catalog can harvest other repositories

...including ArcIMS metadata services

...including domain wikis (soon)

server-side semantics will be external to source metadata

(metadata always stored safely, natively)