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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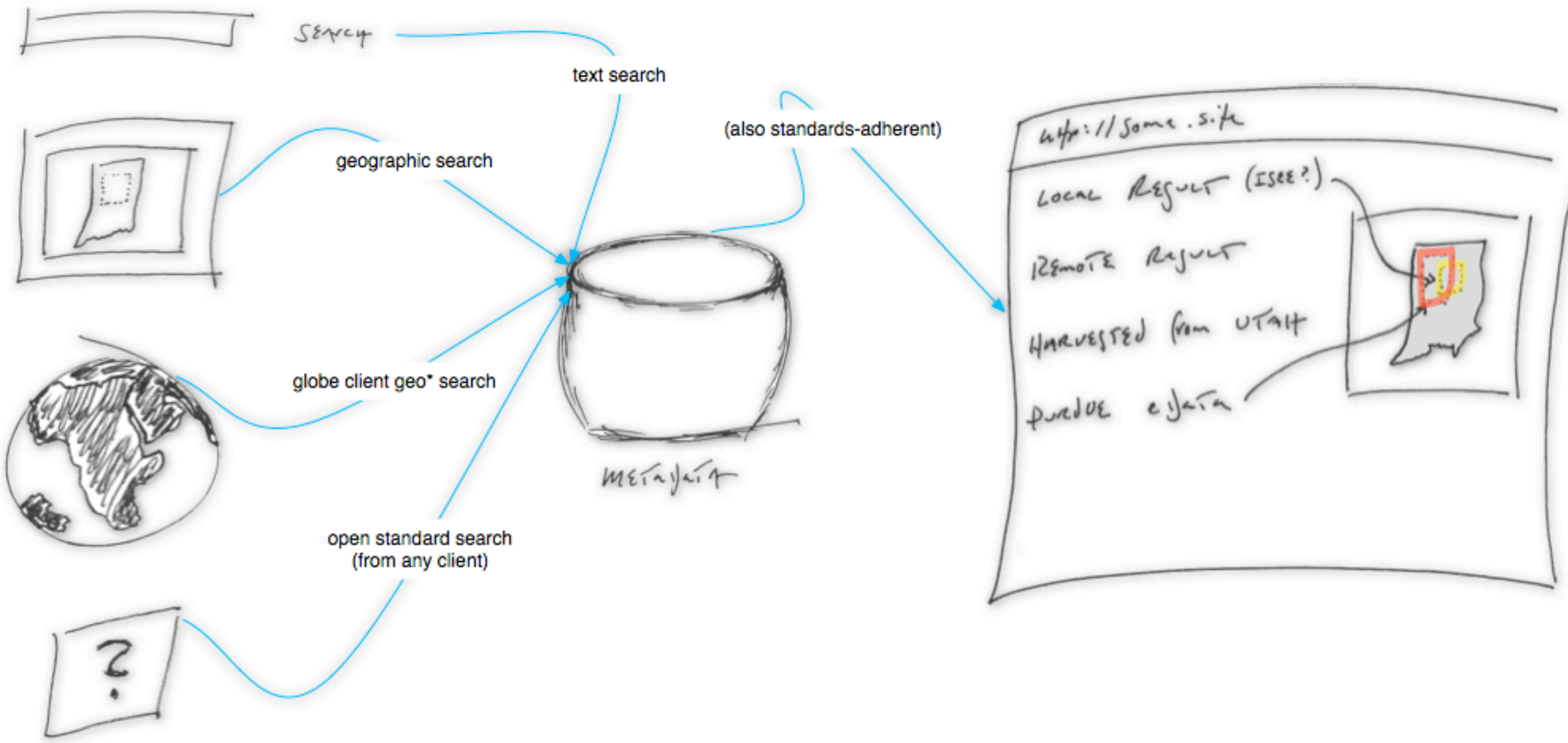

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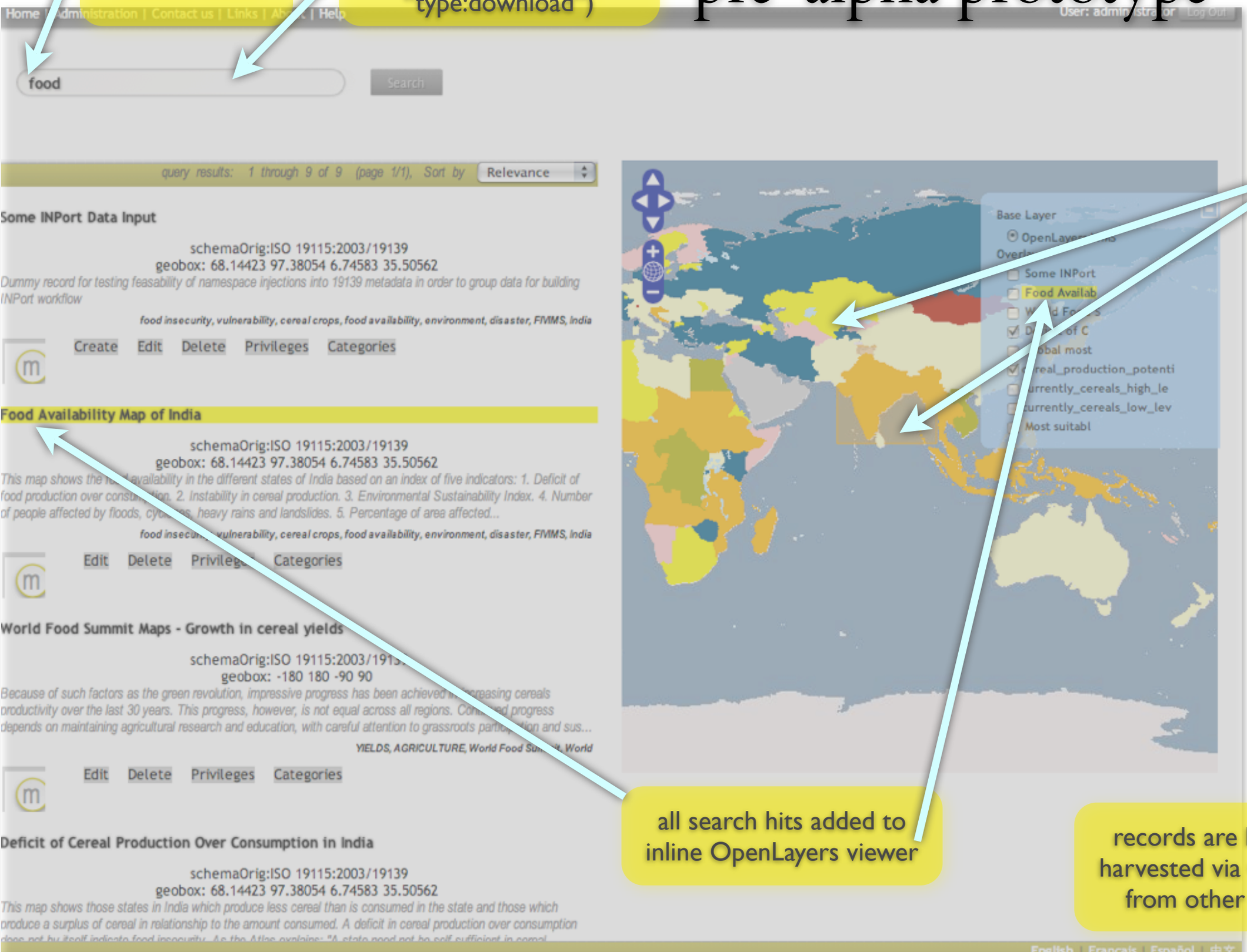
simple kw search, on customizable Lucene index

advanced users can do command-line limiting (e.g. "cat:interactive" or "type:download")

pre-alpha prototype



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)

all search hits added to inline OpenLayers viewer

records are locally-produced or harvested via OAI-PMH, CSW, etc. from other metadata systems

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)