# Climate Change Clearinghouse use case -- add a Sufia repository to a VIVO-Blacklight-Rails app

The Cornell University Library is a partner in the New York Climate Change Science Clearinghouse project, funded by the New York State Energy Research and Development Authority (NYSERDA).

| Element | Description |
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| Title (Goal) | To provide an integrated discovery resource for vetted data, maps, and documents on climate change in the Northeastern United States. |
| Primary Actor | Local, regional and state government policymakers, engineers, and permit review staff; academic and environmental researchers; members of interested non-profit organizations and the general public |
| Scope | Major integration of VIVO, Blacklight, GIS, the Northeast Regional Climate Center, and a document repository |
| Level | High level but with focus on technical interoperability |
| Story | Many portals and websites have been developed to gather scientifically reliable information on climate change, including Cal-Adapt and the extensive materials on NOAA's climate.gov site. NYSERDA seeks to fill a gap for New York State and potentially the northeastern region of the U.S. by developing a clearinghouse integrating maps, climate data products, and documents in a single website with a unified search interface and curated content. Goals include promoting the use of reliable sources of climate data, increasing the consistency of distributed planning and adaptation efforts through reliance on the same historical data and projections, and demonstrating the inter-connectedness of climate issues across major economic and sectors including agriculture, buildings, coastal zones, communications, energy, environment, public health, and transportation.<br><br>The Clearinghouse is being implemented using VIVO as a content curation and administrative interface on the back end and a Rails framework extending Blacklight on the front end, including customizations to extend Blacklight to support interaction with maps and data products.<br><br>The VIVO-ISF ontology has been extended to support additional data types and relationships, and VIVO's interface to Apache Solr has been made compatible with Blacklight's Solr requirements. VIVO has also been customized to support geographically tagging documents and data using PostGIS to enable more sophisticated spatial relevance calculation than supported by Solr alone, and PostGIS stores and displays multiple GIS layers on the site.<br><br>Documents are currently stored in a directory tree on Box.net that permits public access but does not provide repository functions such as support versioning and fixity checks. The project is investigating the use of the Sufia repository (and Fedora4) as a means of fulfilling this requirement and potentially supporting document and/or data upload by new partners. |

**Supplementary Content**