Redesign of GéoIndex+: towards a platform of shared stories

Roadmap

- Centre GéoStat
- The story behind the redesign of GéoIndex+
- Target situation
- Demo T…
- New Features to come
- Project details
Centre GéoStat

A service offered by the Laval University Library

- Books, statistics, maps, atlases, geospatial data
- 30,000 geospatial datasets (over 25 TB)
- Teachers, students, and researchers across the campus

Mission: Facilitate discovery and access for research and education

The story behind the redesign of GéoIndex+

- June 2010: Beginning of the GéoIndex+ project towards a complete redesign of GéoIndex (2005–2011)
- 2012: GéoIndex+ system launched
- 2012: Award: Innovation 2012 des services documentaires du Québec (presented at various conferences, Montréal, Chicoutimi, Toronto, Winnipeg, Alaska, Switzerland, Sweden)
- 2013–2014: Signing of agreements with UdeM and UQAM to acquire the GéoIndex+ platform
- 2015: Signature of an agreement with the City of Montreal to acquire the GéoIndex+ front end
So why “pimping” again?

- **August 2015**: Historical agreement between BCI–MERN:
  - 2-year agreement ($75K/year) is granted to the BCI (to Quebec universities, through their libraries) to use geospatial data produced or disseminated by the Québec government for research and teaching purposes.
  - For the first time, all universities in Quebec could use and share the same core geospatial data: 300 layers, 50 TB.
  - Not all universities have a tool to discover, visualize, and extract all that data.
  - In a vision of inter-university collaboration and process and resource sharing, the Laval University (UL) Library has been open to sharing its expertise and know-how in the geospatial field via a shared platform managed by UL and accessible to participating libraries.

The story behind the redesign of GéoIndex+

- **March to June 2016**: A diagnosis of the GéoIndex+ system recommends the complete redesign in a unified cloud architecture for the BCI–MERN.

- **July 2016 to February 2017**: The “GéoIndex+ Redesign” project is started in order to design the functional, software, and technical architecture, but also to prepare the project planning to support the BCI–MERN agreement (System Architecture).

- **March 2017**: Beginning of the GéoIndex+ redesign work (according to a unified system vision to support the BCI–MERN agreement).
Target situation (redesign)

- Correct all irritants
- Make improvements for discovery, consultation, and retrieval
- Make the loading process less restrictive
- Allow the loading of alternative data formats (e.g., geodatabase)
- A cloud-based system that aims to share the management and dissemination of geospatial data
- Adding a management module by institution (metadata, dashboard, report, statistics, etc.)
- Attempt to have a single platform combining GéoIndex+ and GéoPhoto+

The nature of the data

Data shared unilaterally:

- BCI–MERN Agreement Data
- Other data purchased in BCI consortium from which all institutions benefit
- Data created by an institution and freely accessible

Shared data:

- Data purchased in consortia from which certain institutions benefit
- Data purchased individually by certain institutions and having the same operating licence

Non-shared (or institution-specific) data:

- Institution-specific research data
- Data whose rights are held by a single institution
Deployment options

Option 1: Description of data by UL

Option 2: UL infrastructure
   Loading data by UL

Option 3: Description of data by institution

Option 4: Institutional Infrastructure
   Loading of data by the institution

SCREEN SHOTS DEMO TIME ;-(
Real one next year! ;-)
Main new features
One or more infrastructures but 17 access doors

Institution- and User-Level Parameterization
(Preferences, Sessions, Extractions)

My Preferences
*Personal settings
Language
English
Map center (Bar Lab)
10
Zoom level
10
Basemap

Global setting of the system
Number of vector objects allowed
1000
Maximum size for raster data
1000000
Maximum Session number
10
Nombre de zones d'extraction préférentielles
10
Donation for the down load link (Doug)
0.99
Extractions historical availability (Doug)
108

*These personal settings can be changed in the menu : User -> My Preferences, “Save your preferences” button the cartographic interface.
Institution- and User-Level Parameterization (Preferences, Sessions, Extractions)

My Sessions

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My Extractions

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<tr>
<td>2</td>
<td>cadastre_rent_cadastre_poly_2015_poly</td>
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<td>mni_cen_2013_photographe_irda_point</td>
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<td>2018-05-18 15:18:38</td>
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<td></td>
<td></td>
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<tr>
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<td>Completed</td>
<td>2018-05-18 14:31:20</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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Predefined Extraction Area (Institution and User)

Parameterization of the Search Directory (Institution)
**Sharing Management** (between 2 or more institutions)

**New Features to Come**

- Possibility to retrieve printed air photos of all institution collections: 1.2 million in the same interface (toggle switch)
- Dashboard and statistic usage report
- Upload of users personal extraction zone
- Massive extraction for some users
The Project at a Glance

**Duration:** 2 years

**2 deliveries:**
- 1st: December 2017
  
  *Delivered modules: discovery, visualization and extraction of geospatial data*
  
  Beta version: September 2018 (UL & steering committee)
- 2nd: November 2018
  
  *Delivered modules: platform administration and management (security, metadata, loading), user profiles, statistics, integration of GéoPhoto+, and user guides*

**Content (Day 1):** BCI–MERN Agreement Data Set

**Development team:** 2–3 computer analysts + 1 technician developer

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Steering Committee

**Committee made up of 7 geospatial data managers:** Stéfano Biondo (UL), Kati Brown (UQAR), Alex Guindon (Concordia), Anne Hakier (UdeM), Sylvie St-Pierre (UQAM), Simon Trottier (Sherbrooke) and Nadia Villeneuve (UQAC)

- Prioritize existing improvements/modifications to develop
- Prioritize future developments
- Make design recommendations
- Participate in validating the detailed analysis (DA) of the next development sprint

**Not exclusive to members of the steering committee:**
- Participate in the demo at the end of each development sprint
- Access the production version of the platform
- Test the platform
Specific Objectives & Expected Benefits

- Democratize access to geospatial datasets through the implementation of a shared, efficient, and secure platform
- Mutualization of activities and optimization of human and material resources
- Wider use of geospatial data by members of university communities at participating institutions
- Reduced operating costs (hardware, human, software, etc.)
- Provide a better user experience for discovering, viewing, and extracting data with the ease of use of the platform

Thank you

Stefano.Biondo@bibl.ulaval.ca