VizLab: A Tool for the Interactive Exploration of Geospatial Election Data on the Web

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IASSIST Conference, June 7, 2012
Motivation

- Add value to the CDSP's French election data holdings.
- Don't just view data, visualize it
- Create a tool with political researchers in mind
- Open source, creative freedom
Desired features

- Support various election data, as well as demographic and other data
- Dynamic, interactive interface
- Multi-variable visualization with maps, charts, and tables
- Custom variable creation
- Handle multiple geographical revisions
- Session saving
Changing Location Hierarchies

Diagram showing a hierarchy with a DEP1 at the top, connected to two middle levels labeled CIRC1 and CIRC2, which in turn are connected to four lower levels labeled CAN1, CAN2, CAN3, and CAN4.
Demo

[CDSP. Centre de données socio-politiques]

cdsp.sciences-po.fr/vizlab/interface/advanced
Issues

- Web browser performance/compatibility
- Harmonization of locations
- Metadata!!!
Version 2

- Map export (PNG/HTML/Facebook/Twitter)
- Non numeric choropleth data (qualitative data)
- Custom boundary hierarchies/simulations
- Animated maps
- A simple version, for the less advanced user
- Non election data
- Performance
Questions?

- Application URL: cdsp.sciences-po.fr/vizlab
- Questions: adam.schaal@sciences-po.fr
Q&A: Technologies used

- PostgreSQL + PostGIS extensions
- PHP 5 + Zend Framework + Doctrine ORM
- Openlayers interactive web mapping framework
- Google Visualization library
- JQuery and various plugins for improved interface
- MapServer (Coming soon)