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Mapping tools for non-mapping experts: incorporating geospatial visualization tools in library

Abstract

BGDb.be: a map based search tool for geological publications

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Two Belgian geological journals, *Annales de la Société Géologique de Belgique* and *Geologica Belgica*, are available online in open access (respectively <http://popups.ulg.ac.be/0037-9395> and <http://popups.ulg.ac.be/1374-8505>). They are classically searchable using keywords. As these publications cover not only Belgium and Congo (DRC) but also a lot of countries worldwide, we decided to develop a map based search tool to increase the discovery of the papers.

To create this tool, the first step was to georeference these papers. As more than 1500 papers were available when we started the project, we developed an interface to crowdsource the georeferencing. The second step was to develop the main search interface. This one has to be user friendly and usable. These two interfaces are combined in a single website *BGDb*, *Belgian Geology Database* (<http://www.bgdb.be>). This website is developed with PostGIS, GeoDjango and Openlayers3. PostGIS is a spatial database extender for PostgreSQL, an open source database. Similarly, GeoDjango extends the capabilities of Django, a popular web development framework written in Python. Finally, Openlayers3 is a JavaScript library similar to Leaflet. The combination of these development tools lets us to easily create and manipulate geographical objects in a browser.

As soon as a paper is georeferenced, it is immediately searchable through the geographic search interface. As the papers are in open access, the search results obtained through this map based search tool allow a direct access to the full text of both journals.

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