

Project Year

2012-2013

Project Title

Generating Online Databases with Maps and Timelines

Project Team

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Audience

The Sociology Department offers several undergraduate courses that integrate instruction in comparative-historical methods with hands-on data collection and analysis around substantive sociological problems. These courses are currently taught by Professor Beverly Silver. The Technology Fellowship grant will be used to create a web-based database utility with an embedded mapping facility to be used by the instructor and students in these courses. Specifically, it will be used in 230.325, *Comparative and Historical Research Practicum* (taught in the Fall); 230.359, *Research Seminar on Global Social Protest* (taught in the Spring); and 230.314, *International Development* (taught in the Spring). These courses are taken primarily by Sociology, International Studies and Public Health majors with a few other students from scattered majors. The new utility will be easy to adapt for use in other courses in the social sciences.

Pedagogical Issue

In the last iteration of 230.325 and 230.359, students searched online newspaper archives, leading to a collectively produced database on social protest. In 230.325 students entered data in Access; we collated their separate files and imported it into ARC-GIS. It was not feasible to do interim analyses, which would have facilitated classroom discussions on methodological & substantive issues. This semester we are using a free utility (Crowdmap.com). While it facilitates regular interim analyses of the data as it is collected, it created new problems. Their database structure does not fit our needs; we therefore had to make problematic compromises. Reliance on external commercial web-sites beyond our control also poses security problems for the datasets we collect. Moreover, this semester we experienced unscheduled website showdowns with Crowdmap that interfered with students completing their assignments on time and planned classroom instruction.

Solution

We will establish a website located on a Hopkins server through which students (1) create and modify datasets and (2) produce maps and timelines from these datasets. Instructors will be able to immediately see the maps and timelines produced by students, and use them for class lectures and discussions. For example, the instructor will be able to call up the students' collated datasets, graphed time series and maps in order to lecture and lead discussions on methodological issues (e.g., validity and inter-coder reliability) and on the substantive patterns emerging from the student's collective research. The database structure will be flexible enough to accommodate a range of data collection projects with a spatial and temporal dimension, thus making the tool useful beyond the above mentioned courses. The website will include a web-application to produce timelines of events along with the maps.

Technologies Used

Web server

MySQL

Javascript

Google Maps API

R programming language

Faculty Statement

I teach several courses that integrate instruction in comparative-historical methods with hands-on data collection and analysis around substantive sociological problems. For example, this academic year, in my Comparative Historical Research Practicum (230.325) and my Research Seminar on Global Social Protest (230.359), I asked students to search online newspaper archives, leading a collectively produced database of events of social protest around the world. My goal is to introduce students to the methodological problems that arise in carrying out social scientific research from conception to execution, while also having them conduct original collaborative research projects around a substantive sociological problem.

We have been using various technologies to accomplish this goal (including Excel, Access, ARC-GIS and the Crowdmap website). However, multiple problems have arisen with existing technological resources. In particular, the Crowdmap site, while an advance over what we were using last semester, leaves us at the mercy of strangers when it comes both to design of and access to the database. Their design does not fit our needs well; while we became acutely aware of the access problem when the site experienced an unscheduled shutdown lasting two days this semester). Our solution is to design a new website located on a Hopkins server that will allow students to (1) create and modify datasets and (2) produce maps and timelines from these datasets; and allow instructors to immediately see the maps and timelines produced by students, and use them for class lectures and discussions.