

The GeoEX Portal: Web-Based Dissemination of Geovisual Analytic Results

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A critical need for the successful application of geovisual analytic tools is support for collaboration and decision-making using results gathered from exploration and analysis. Currently, users are not able to easily share their work in an environment that encourages cross-pollination of ideas and techniques. We report here on our efforts to design and implement a web-based dissemination environment called the GeoEX Portal. Our clients are health analysts and policymakers at the National Cancer Institute (NCI) who have historically relied on paper publications and conferences as the major mechanisms for disseminating results. The GeoEX Portal is designed to support dissemination and collaboration with results found using geovisual analytic tools in a web-based setting where materials can be stored, discussed, annotated, and searched in an asynchronous, distributed manner.

We begin with a description of the basic dissemination and collaboration tasks that guide our development effort. Users should be able to browse analytical materials in a simple, interactive interface that can be organized by particular topics, research groups, or analysis techniques. We describe several scenarios in which the GeoEX Portal can aide users. These scenarios include; collaborating with colleagues on in-progress research, using the Portal to peer review materials as part of a paper submission to a journal, posting final research results for consumption by a wide audience, and using the Portal to access training materials to learn about using geovisual analytic software.

Next we describe the changes to existing geovisual analytic tools that are necessary to support close integration with the GeoEX portal. Among other things, users must be able to easily save and upload video clips and project files into Portal to share their work with others. This requires modifications to existing tools to provide video clip, dataset, and project file export capabilities. We present our progress toward these goals to date.

This paper concludes with design concepts and results from initial user-centered design activities that are shaping the implementation of the GeoEX Portal. Our current interface design is inspired by popular multimedia sharing websites like YouTube and Flickr that allow users to be associated in groups, media to be tagged with relevant keywords, and discussions to form around particular items. Our approach is to merge what works on those sites into comparable tools that make sense for the needs of the scientific community at NCI. Also, the GeoEX Portal emphasizes support for different tasks like peer review or tool training with specially tailored interfaces – a departure from the singular interface approach of popular media sharing websites.