



# GOOGLE EARTH AND CALIFORNIA STATE GIS

A LOOK AT THE IMPACT OF FREE GEO-BROWSERS IN THE ORGANIZATIONAL CONTEXT OF STATE GOVERNMENT IN CALIFORNIA

The current crop of “geo-browsers” from Google, ESRI, Microsoft, NASA and others has generated both excitement and confusion as to where these tools fit in organizational geospatial initiatives and strategies. We need to consider what the availability of technologies for delivering geospatial content mean and don’t mean as we consider organizational needs.

As busy as we are in transforming State IT to be more responsive and cost effective, GIS matters are viewed by many of our Chief Information Officers (CIO) as a source of unnecessary and relatively unimportant work and complications. Many CIOs would like to believe that someone else is taking care of this for them so they don’t need to invest already over committed time, energy, and money in GIS and how to integrate program-initiated GIS projects into operations. It is clear that many of our CIOs have only passing familiarity with GIS, regarding it mostly as a way to make maps. They do not seem to appreciate the power of GIS for analysis, modeling, visualization, asset management and decision support for more effective government services.

## **The impact of Geo-browsers**

Developers of “geo-browsers” deserve credit for raising public awareness about computer mapping. Availability of affordable broadband and no-cost geo-browsers have raised the bar on public expectations for ease of use and ready availability of location based information and services. They also allow for imaginative recombination of location-based data and functions (mash ups) in ways unantici-



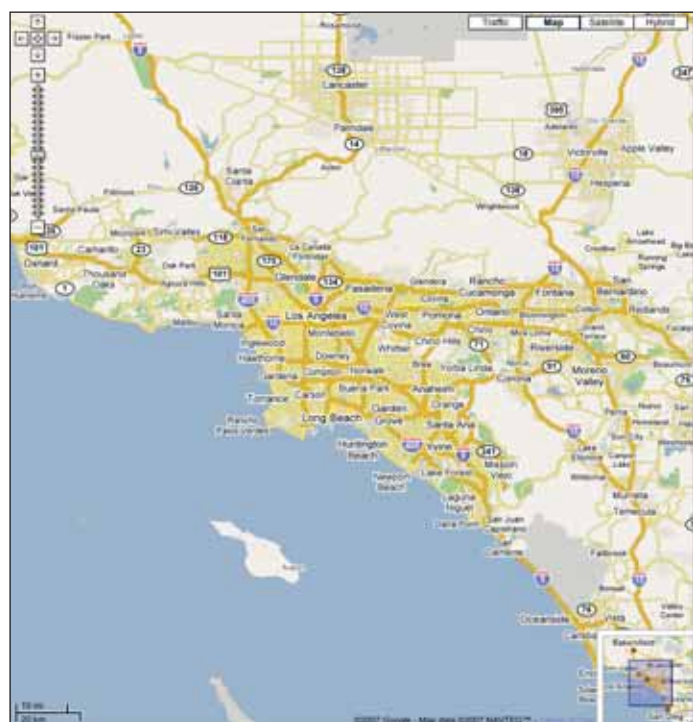
pated by the producers of these data and services. However, current versions of these geo-browsers do not support more advanced spatial analysis required by many government programs. We should not forget that it is the mission of Google, Yahoo, AltaVista and the rest to discover and serve largely unstructured content provided by others. It is up to us to create and maintain content and ensure that any data we provide are of high quality and serve our customers well.

Current efforts to improve California's geospatial governance are more focused on ensuring that we have quality geospatial content adequate to our needs rather than on hardware and software. The free 'geo-browser' companies have given us more choices in how to consume geospatial web services, deliver this content, and make it easier for non-GIS professionals to use data. The availability of these no or low cost solutions is being used as an excuse to scale back our own GIS governance efforts, so it is ironic that their success has been fueled by the hard work and substantial investments made by government agencies at all levels to make imagery and other geospatial content available to the public. For example, the high-resolution, natural-color aerial imagery of California procured through a collaboration brokered by the California Resources Agency's CERES program ([www.ceres.ca.gov](http://www.ceres.ca.gov)) in 2006 has been given to Google, ESRI, Microsoft and NASA and made available for download at no cost over the Internet through the California Spatial Information Library (<http://gis.ca.gov/>). This was done as part of our ongoing efforts to make certain that publicly funded data is made available to and benefits the general public.

### Cooperation is still key – and lacking

This imagery success story is an exception that proves the rule. California State government has a poor track record on cooperating across agencies on data investments, geospatial or otherwise. Our budget, project approval, and procurement processes work against us in this regard. We failed, for example, to effect a more modest collaborative purchase of companion color-infrared imagery that would have been extremely useful in mapping California's natural vegetation, a subject of intense interest among environmental groups, state agencies, and the legislature for the 2007/08 Fiscal Year. Failure was due to lack of purchasing mechanisms enabling pooling of monies from different sources.

Many government agencies - state, federal, local and tribal - own valuable geospatial data that would help address pressing public policy challenges if this content were made available as web map and feature services. A number of local agencies in California are far ahead of state agencies in making their geospatial content available through Google.



These same agencies and the general public would benefit greatly from pooling resources to purchase or cooperate on so called "framework" geospatial data (imagery, digital elevation, parcels, roads, critical infrastructure). But we are frustrated in our efforts to do this by the absence of an adequately staffed and funded state geospatial information office like we see in many other states. (See <http://www.oregon.gov/DAS/EISPD/GEO/ogic/OGIC.shtml> for a good example of a state enterprise GIS program). In California, we lack the governance that would facilitate a disciplined, informed approach to state geospatial investments. We also have great inconsistency in data sharing policies and practices even within the same agency. California Public Records Act requirements and expectations for greater transparency in government from our current Governor and the Legislature are not yet adequately addressed when it comes to government data. We can do better with only a modest investment in governance, coordination and collaboration.

We should not allow the "wow" factor of today's latest crop of geo-browsers to distract us from the real prize. Quality content now more than ever is of utmost importance and deserving of our attention more budget.

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