



Citizen Mapping and Environmental Justice: Internet Applications for Research and Advocacy

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1. Web 2.0 & Citizen Mapping

Case Study: Tallahassee, FL 2.

3. Future Use and Misuse



1.

Web 2.0 & Citizen Mapping



Web 2.0 & Citizen Mapping



Google earth





Concepts in Citizen Mapping

Cartography 2.0

Digital map design, collaboration, and spatial data accessibility made possible by expanding interoperability and social communication via the web. Cartography’s first mode spanned hardcopy map production to more site-constrained digital map production. For this second version, digital map production has become more distributed and fluid because of open source software and cartographic tools available through the web.

Citizen sensors

The concept that spatial data collection can be enhanced by drawing from a larger, non-expert population of collaborators. Citizens may provide information during a time of crisis or as part of a more planned cartographic enterprise. Collection of GPS coordinates, photographs, and location-specific descriptions can be collated for visualization.

Mashup

A web-based mapping application that mixes data from two or more sources. Aggregation of data facilitates the diversification of cartographic visualization and communication. A mashup, for example, might combine the location of child care centers available from one online mapping website with the location of hazardous waste facilities obtained from another website.

Metadata

Data about data. To be reliable, geographic data should be accompanied by documentation that describes what the data represent, the means by which the data was collected, who collected and distributed the data, the timestamp of its collection, and the information needed to position the data spatially in a coordinate system, projection, and datum.

Neogeography

The expanding non-expert application of geographical techniques and data made available through the web. Where once sophisticated mapping tools were available only to experts, neogeography is undergirded by a technology that allows non-experts to participate in a dynamic cartographic culture.

Open source

Freely available software that has been designed, developed, and distributed through a collaborate network of users. Source code is available for users to customize for new uses.

Web 2.0

Web design that enhances online data exchange, collaboration, and equitable levels of accessibility and participation. Whereas the first generation web was designed for data access and viewing, Web 2.0 promotes more diversity in the possibilities and outcomes of data exchange.



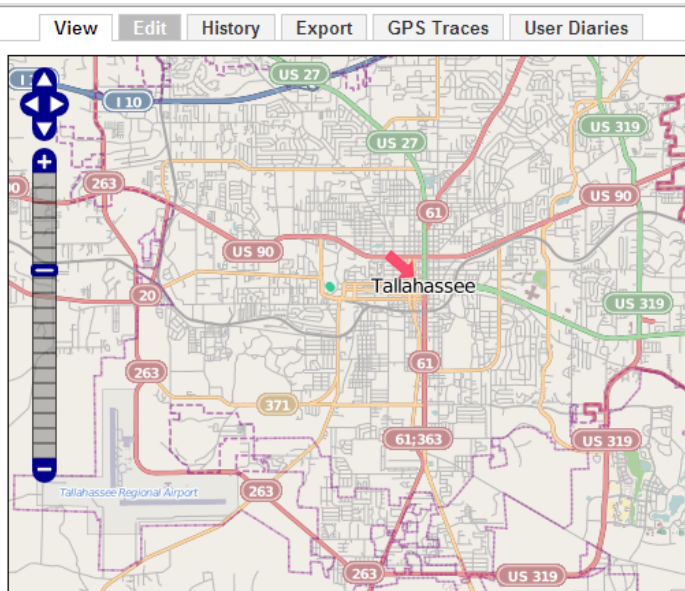
Open Data Collection



OpenStreetMap is a free editable map of the whole world. It is made by people like you.

OpenStreetMap allows you to view, edit and use geographical data in a collaborative way from anywhere on Earth.

OpenStreetMap's hosting is kindly supported by the [UCL VR Centre](#) and [bytemark](#). Other supporters of the project are listed in the [wiki](#).





Transparency & Open Data

DATA.GOV
EMPOWERING PEOPLE

HOME DATA TOOLS COMMUNITY METRICS DIALOGUE GALLERY

GEO VIEWER

We are pleased to announce the availability of the Data.gov GEO Viewer, an interactive mapping tool designed to let users preview geospatial data available through the Data.gov catalogs.

[VIEW MORE ▶](#)

FLORIDA CHARTS
Community Health Assessment Resource Tool Set

Mozilla Firefox
http://www.floridacharts.com/maps/chart_ct_map/charts2.html#

Percent of Births Under 2500 Grams (Low Birth Weight)

Map showing birth weight data for Leon County, Wakulla County, and Apalachicola National Forest. The map is color-coded by quartile calculation (County and State). The city of Malahassee is labeled. The map includes a scale bar (10 mi, 20 km) and a legend.

Map controls: Create a Map, Change quartile calculation (County, State), Census tract reports (On, Off), More options (View map data, Print, Help), Add/remove layers (Streets/Highways, Zipcodes), Data layer visibility (hidden to visible).



Open Data Analysis



PySAL

The GeoDa Center released PySAL 1.0 on August 1, 2010. PySAL is an open source library of tools for spatial analysis (see figure) written in Python.

[About PySAL](#)
[Download PySAL 1.0](#)





Open Data Analysis



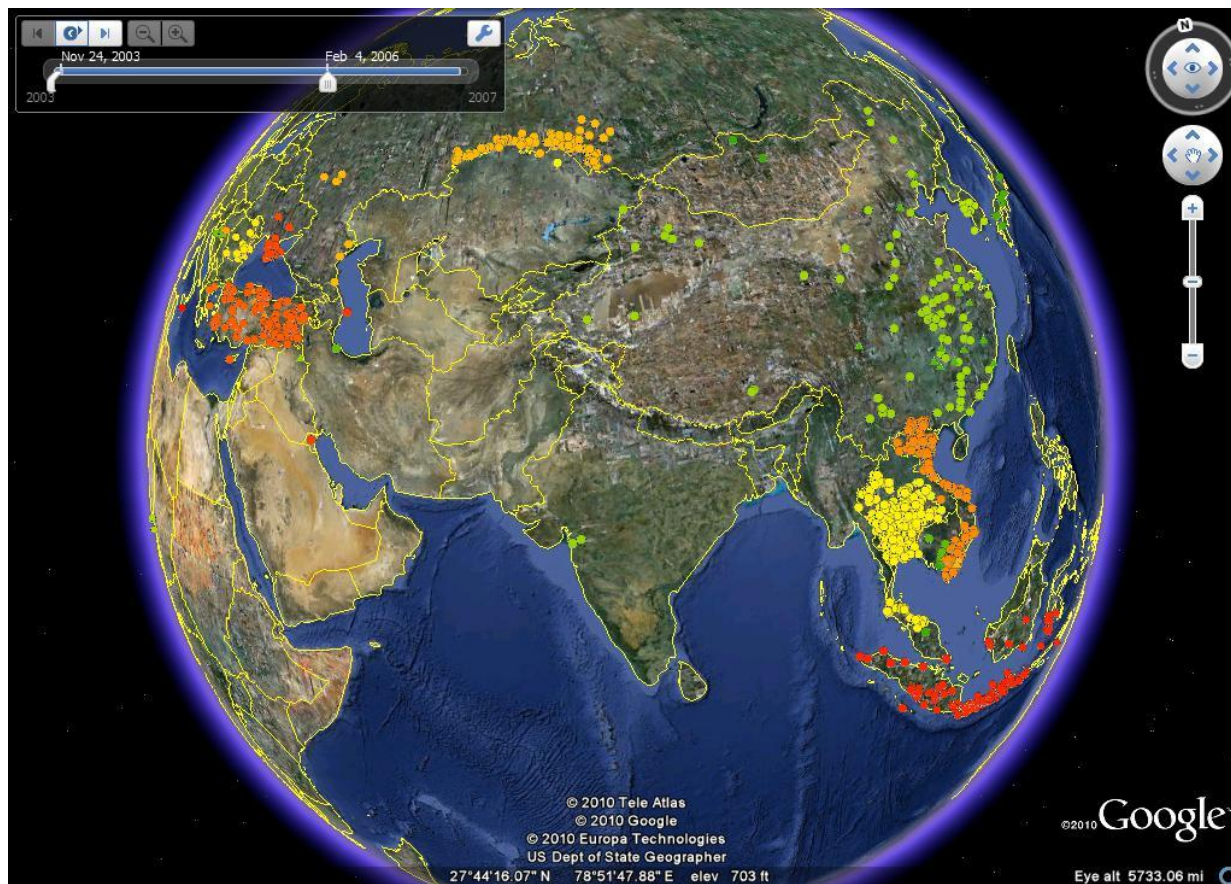


Open Data Analysis





Open Data Analysis





Web 2.0 & Citizen Mapping

S. Sen et al. / Habitat International 27 (2003) 595–611

607



Fig. 8. Gandhinagar, Yerawada. The grey-shaded houses have their own water. The black squares are common water points. Even the houses with the water points exactly at their door step have their own connections.



Uses in Public Health

THE SOCIAL MEDICINE PORTAL

An Alternative to Corporate Health

USING GOOGLE EARTH AS AN INNOVATIVE TOOL FOR COMMUNITY MAPPING

June 24th, 2008 by bronxdoc



Sources of Food and Exercise around the Montefiore Comprehensive Health Care Center; Legend: Red cross = Comprehensive Health Care Center; Grocery cart = Grocery Store (n =10); Fork and Knife = Restaurants (n=16); Red dot = Fast Food outlet (n=32); Yellow dot = Bodegas (small variety stores, n=44); Green tree = Exercise site (n=11). Note the old Yankee stadium on the lower left of the map.



Case Study: Tallahassee, FL

2.

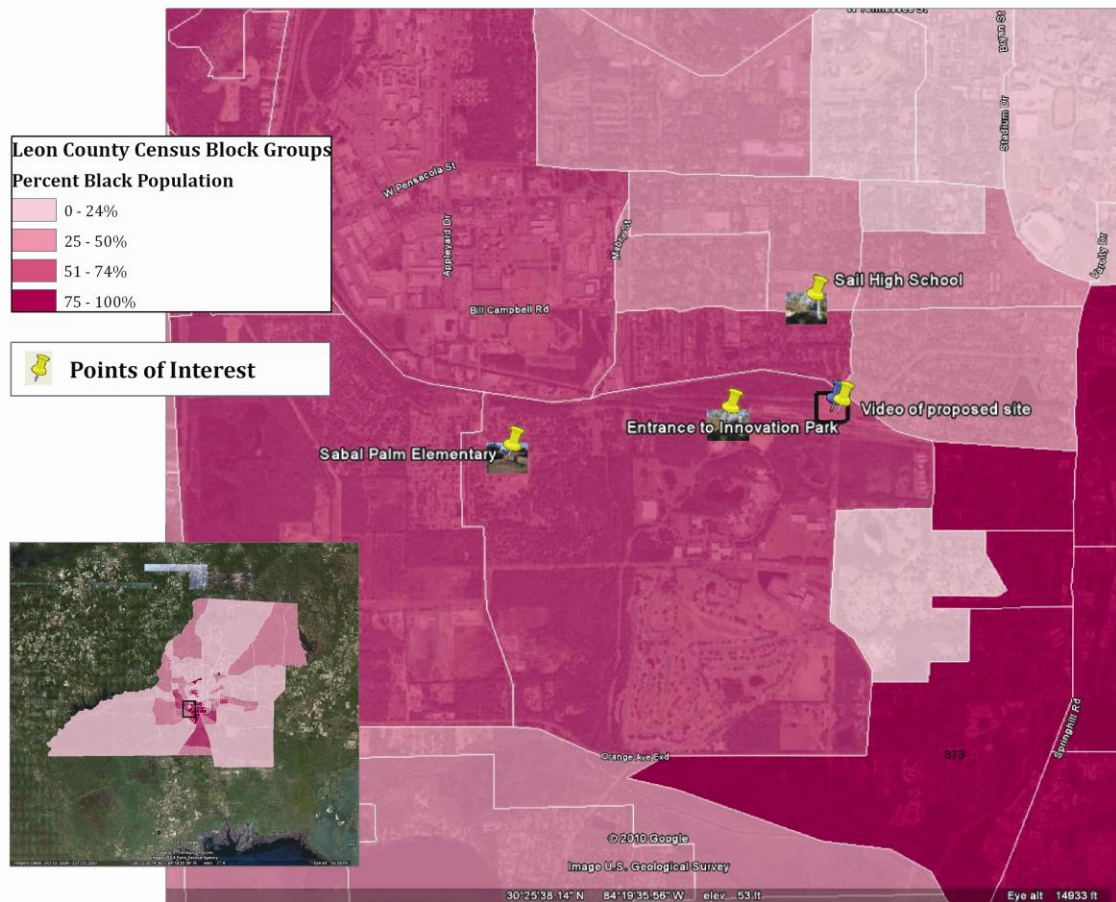


Tallahassee Case Study





Tallahassee Case Study





Tallahassee Case Study

Friday, January 23, 2009

Tallahassee biomass plant withdrawn

By Bruce Ritchie

A Georgia company says it has decided to withdraw a proposed biomass electric plant on Florida State University land in Tallahassee that had raised ethical questions about FSU President T.K. Wetherell and his wife's involvement in the company.



The Biomass Gas & Electric LLC project was to be located on 21 acres of FSU land in southwest Tallahassee. Wetherell's wife, former Florida Department of Environmental Protection Secretary Virginia Wetherell, said last year she was a partner in the company.



3.

Future Use and Misuse



Uses...

- Mechanisms for community collaboration
- Decreasing barriers to access
 - Data
 - Software
 - Analysis
- Compelling visualizations



...Misuses

- Limits to representation
- Problems with availability of complete metadata, such as accuracy reporting
- Challenges in finding causality
- Inequity in access, know-how, and time



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Thank you.