Help the World Understand!

...How to use Google Earth for data visualization and public outreach

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Google Earth Outreach
http://earth.google.com/outreach

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GIS SIG, Stanford University
Let’s dive in!

Crisis in Darfur
http://www.ushmm.org/maps/projects/darfur/

Appalachian Voices
http://ilovemountains.org

Air Quality in Spain
http://earth.google.com/outreach/showcase.html

Watch the Spread of Bird Flu
http://earth.google.com/outreach/showcase.html

Dreaming New Mexico
http://www.dreamingnewmexico.org/

Marine Protected Areas
http://protectplanetoocean.org
Why use virtual globes?

- Improve collaboration & decision-making
- Outreach & communicate to the public
- Increase public understanding of science
- Impact policy
- Increase number of website hits, volunteers, and donations
**Impact – Crisis in Darfur**

50% increase in traffic to their website since launch.

International visitation went from 29% to 52%.

Hits to the “What Can I Do?” page went from 2,000/month to 40,000/month.

“No one who sees these pictures can doubt that genocide is the only word for what is happening in Darfur -- and that we have a moral obligation to stop it.”

-- President George W. Bush (source: whitehouse.gov)
13,000+ people from every U.S. state and 35+ countries signed an online petition to stop the dumping of mountaintop mining waste into waterways.

Over 150 congressional co-sponsors from the U.S. House of Representatives for a bill to change the Clean Water Protection Act.

"It's easier than you think. Don't feel like you need to contract out expensive consultants to develop a project. Take the time to learn a little, and you'll be surprised how much you can accomplish on your own."

-- Mary Anne Hitt, Executive Director, Appalachian Voices
Step 1. Assemble your Geospatial Toolbox

GIS Data

Spreadsheets & Databases

Text
- Personal stories
- Blog posts
- RSS feeds
- etc.

Media
- Photos
- Videos
- Webpages
- etc.

Google Earth is an effective tool for your geospatial toolbox.
Step 2. Decide on the Right Tools.

- Google Earth
- Google MyMaps
- Google Sketchup

Google Earth API (Plug-in for the browser)

Google Maps API
Step 2. Decide on the Right Tools.

These are relevant APIs (code libraries) for further customizations:
Step 3. Figure out how to get your data into Earth/Maps

You can...

Add data directly to Google Earth (points, lines, and polygons)

Format pop-up balloons with HTML, including images and YouTube
- Tutorials at http://earth.google.com/outreach

Add images and models to the map (including image overlays, photo overlays, and models)
Step 3. Figure out how to get your data into Earth/Maps

You can also...

Importing spreadsheets and GIS data
- Tutorial coming soon to http://earth.google.com/outreach

Parsing KML from a spreadsheet
- Spreadsheet Mapper (http://earth.google.com/outreach/tutorial_mapper.html)
- Using PHP to connect to Google Spreadsheet (http://code.google.com/apis/maps/documentation/articles.html)

Parsing KML from a database
- Using PHP to connect to MySQL database (http://code.google.com/apis/kml/articles/)

Creating narrated tours (new in Google Earth 5!)
- Go to news.earthoutreach.org for more info
4. Promote your project!

Submit to Google Earth Outreach **Showcase**

Submit to Google Earth **Gallery**
- [http://earth.google.com/gallery](http://earth.google.com/gallery)

Submit to Google Earth **Community**

Create a **landing page** at the organization
- For example, the UNHCR created [http://www.unhcr.org/googleearth](http://www.unhcr.org/googleearth) for their *A Refugee’s Life* project.

**Embed** your map in a website, e.g. Blogger, Sites (coming soon!)
- Embed MyMaps map
- Use Maps & Earth Application Programming Interface (API)
How do you get started?

See what others have created:

- http://earth.google.com/gallery

Work through tutorials:

- http://code.google.com/apis/kml/articles/

Practice!
Google Earth Outreach helps non-profits and public benefit organizations use Google Earth and Maps to enhance their mission and increase public awareness.

http://earth.google.com/outreach
Google Earth & Maps for Educators supports K-12 and higher education, in order to help instructors and their students use Google Earth and Maps in their classrooms and research projects.

http://www.google.com/educators/geo.html
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Thank You!

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