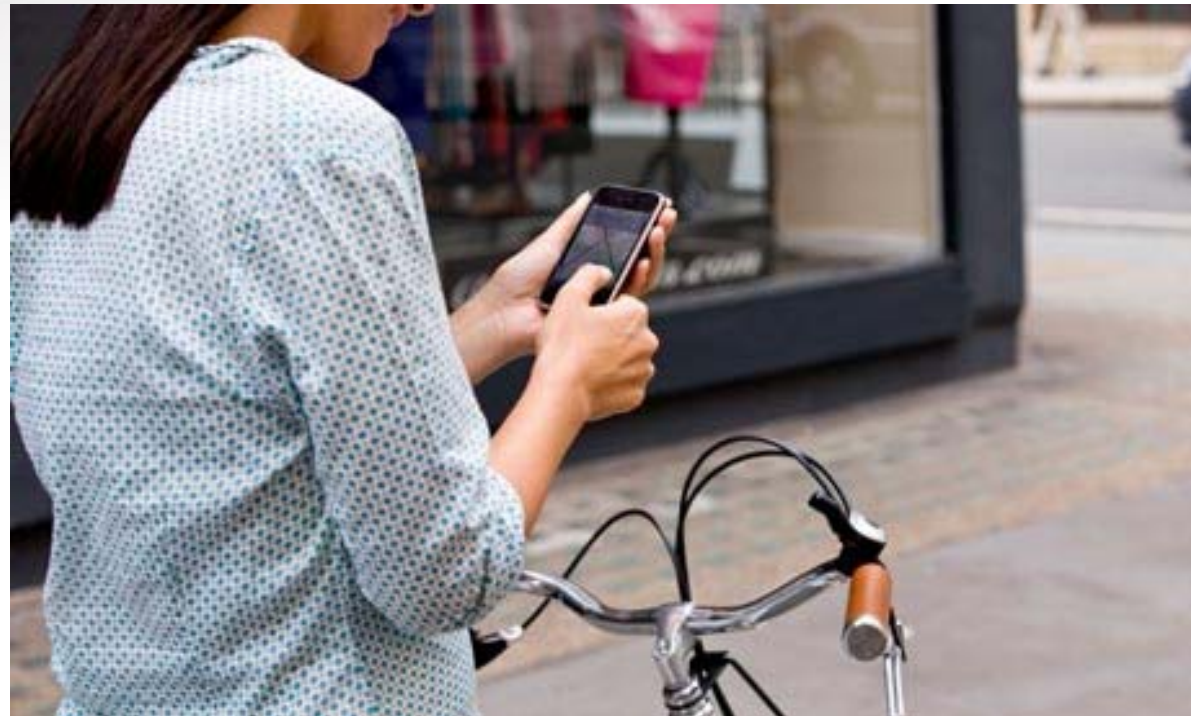# Using Multimedia Maps to Engage Students in Online Learning

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Easy to create, share & access maps

Introduction

- Multimedia maps can foster exploration.
- A mapping and blogging learning object based on Google Maps and Drupal, a MapBlog.
  - to engage online students in collaborative exercises where they develop critical thinking, problem solving and research skills, better communication and a stronger grasp of concepts.
- We have used this tool for a variety of pedagogical purposes in our courses. We demonstrate the use of four categories:
  - external content
  - student-created content
  - static content
  - thematic.

Using Interactive Maps as a Simulation

http://www.esc.edu/learningobjects/darwin/plymouth_map.html

"The inclusion of so many details and the timeline layout allowed me to better picture what Darwin observed and experienced. That is to say, the various written portrayals of his surroundings brought his journey to life, so to speak."

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Dynamic Map Interface for Student Collaboration "MapBlog"

MapBlog Learning Activity Version 2.8 - Updated on 01-09-12

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Logout

Update 01-09-12: The MapBlog Help is now available as a single PDF file that can viewed on-line or downloaded (link in the help menu at left).

If you have a question please review the Help (it is brief). **Note the discussion of pasting content from Microsoft Word under "Add A Post".** Pasting content written in Word is a common source of problems.

GPS - Your Location

Blog View Options
Overview Page
View/Edit Posts and Comments
Add A Post

Blog

Map View Options
View the Map - All
(maps open in a new window or tab)

Map

Help
Complete Help (PDF)
Overview
Add a Post
Set the Location
Add Images to Posts
Navigate the Map
Frequently Asked Questions

Course: gps
Section: gps-sept12-01
User:
Group/Category: module3
Version 2-8 - Full

This application works best when viewed in a maximized browser window with a minimum screen resolution of 1024x768. You'll need a current browser and Firefox Internet Explorer (7 or higher), Chrome and Safari have been tested. Javascript and cookies must be enabled. If using IE 7, refresh the browser window if the map does not redraw correctly.

Quick Start Instructions

The MapBlog is an interactive learning activity that combines blogging and on-line mapping. To complete the activity, you'll create blog posts containing information or data about your topic (as directed in your course). Then you'll associate those posts with a geographic location related to your post. You'll then be able to view all of the posts for your course section on an interactive map. We all know how maps can be used to find locations, but geographers go further and think in terms of how physical and human processes can be detected in geographic patterns. Keep this relationship between process and pattern in mind as you add your posts and work with the mapping interface in this activity. To get started:

1. Review the instructions in your course. Your course instructions detail **what to post** here in the MapBlog
2. Add a blog post - Click the **Add A Post** link (menu on the left) - be sure to save your post
3. Find the geographic coordinates for the location associated with your post and add those coordinates to the post. You can include the coordinates when you create the post, or you can save your post and come back later to add the coordinates. The Map View can be used to obtain the coordinates that you need.
4. **View the Map** to see your post, and the posts made by other students, in a geographic context. The Map View opens a new browser window (or tab).
5. If you have a question, or encounter a problem, the MapBlog Help (menu on the left) will answer most questions. It is brief.

Pattern and Process Example

An interesting pattern is visible if we look closely at a map of the street grid of Grand Island Nebraska. To see this, open the MapBlog map view (or use Google Maps or Google Earth) and double click on Nebraska to zoom in. Grand Island is in the central part of the state along Interstate 80. Continue to double click on Grand Island (to zoom in) until you can clearly see the pattern of streets. Some streets are aligned with a a grid that is at a roughly 45 degree angle to north-south, and other streets are aligned with a north-south grid. What is the process that created this pattern?

For starters you might notice that the north-south street grid is aligned with the pattern of survey townships surrounding the city. The survey townships of the Public Land Survey System played an important role in the development of land throughout much of the Western U.S. But what about those other streets? Switch your map to the Satellite view (button upper right) and zoom in close on the central part of the city. If you explore the map by panning (drag the center point) and zooming in and out; you might notice that a large railroad yard is found just to the northeast of downtown Grand Island. Once you see the railroad yard, it's easy to see the tracks that run through the middle of town. That railroad was once the Union Pacific mainline between Chicago and Denver and Grand Island grew up around the trade and business associated with the railroad. The original street grid was aligned with railroad.

Google Maps with a Drupal platform to support blogging capabilities.

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MapBlog: Categories

- 29 Courses: cultural studies, science, language, health services, philosophy, history mathematics, social sciences.

- External Content MapBlog
  - Simply provided a space for students to geotag resources available online.
  - We did not have the ability to directly add and publish content created by students.
  - Global Climate Change: identify an environmental issue potentially caused by climate change, find an online resource describing the issue and add a marker near an identified site.

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Static-Content MapBlog

No access to edit and/or add any material to the map.

Student-Created MapBlog

An electronic journal.

Thematic MapBlogs

Layers offer a visual tool for illustrating relationships.

Students can easily activate the layers or hide them as well as post.

Summary

- MapBlogs shift emphasis away from a memorizing facts.

- Employing multimedia maps creates a sense of holism and collaboration that encourages learning in a global setting.

- We have identified four main classes or categories of MapBlog based on the pedagogical intent: external content; student-created content; static content; and, thematic.

- Based on informal course feedback, MapBlogs are particularly useful to engage students in problem-solving activities, critical thinking and scientific inquiry where student-created content is required.

Thank you!

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Book Chapter:

Matias, A., S.M. Aird, and D. F. Wolf II (In Press, March 2013). **Innovative Teaching Methods for Using Multimedia Maps to Engage Students at a Distance**, In Laura Wankel & Patrick Blessinger, (Eds.), Improving Student Engagement and Retention through Multimedia Technologies: Including Video Annotation, Multimedia Apps, Videoconferencing, and Transmedia Storytelling (Cutting-edge Technologies in Higher Education Series, Volume 6D). Emerald Publishing Group, Bingley, UK.

Open MapBlogs:
http://links.esc.edu/maps/spanish
http://link.esc.edu/maps/french
http://link.esc.edu/maps/dance
http://commons.esc.edu/cdlchinese
http://commons.esc.edu/italianmap/roma/

We want to hear from you, if you use the open MapBlogs for educational purposes. Please email Audi.

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