

Online Map of PSU Geography Travels



Paulo Raposo, Robert Roth, Mike Dawson

Geography Dept. Penn State University

The Peter R. Gould Center for Geography Education and Outreach

no)BOUNDARIES Conference, March 2010

DEPARTMENT OF

GEOGRAPHY

COLLEGE OF EARTH AND
MINERAL SCIENCES

Physical

Human

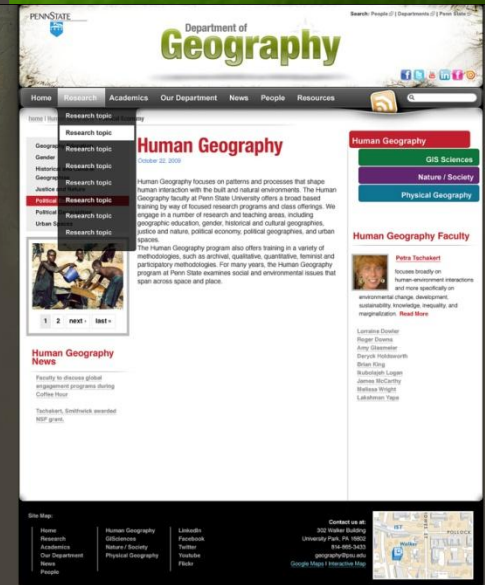
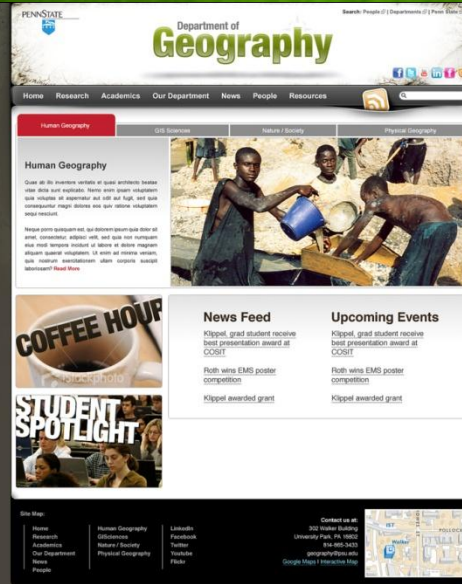
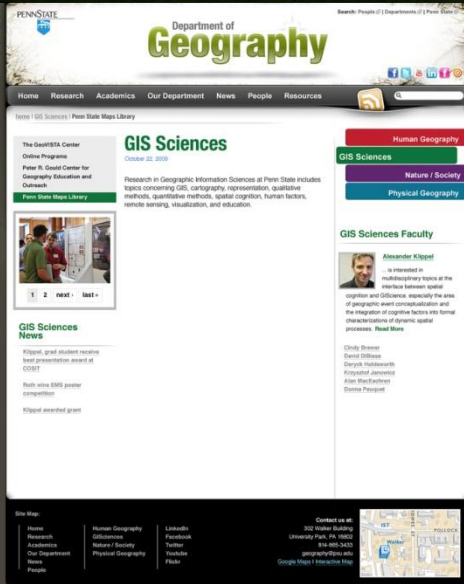
Nature/
Society

GIScience

PSU Geography: Fieldwork & Travel

- Broad range of fieldwork types:
(ethnographic research, participant observation, measurement & data collection, collaboration, conference attendance...)
- Faculty and student travel
- All around the world
- Various times of year

New Department website design



So, why an interactive map?

- Because we're geographers
- Represents our Department to the world: potential students, faculty, collaborators and funding agencies
- "enhanced visitor experience"
- Interactivity: representation of complex data set, ability to explore for patterns

A Mashup

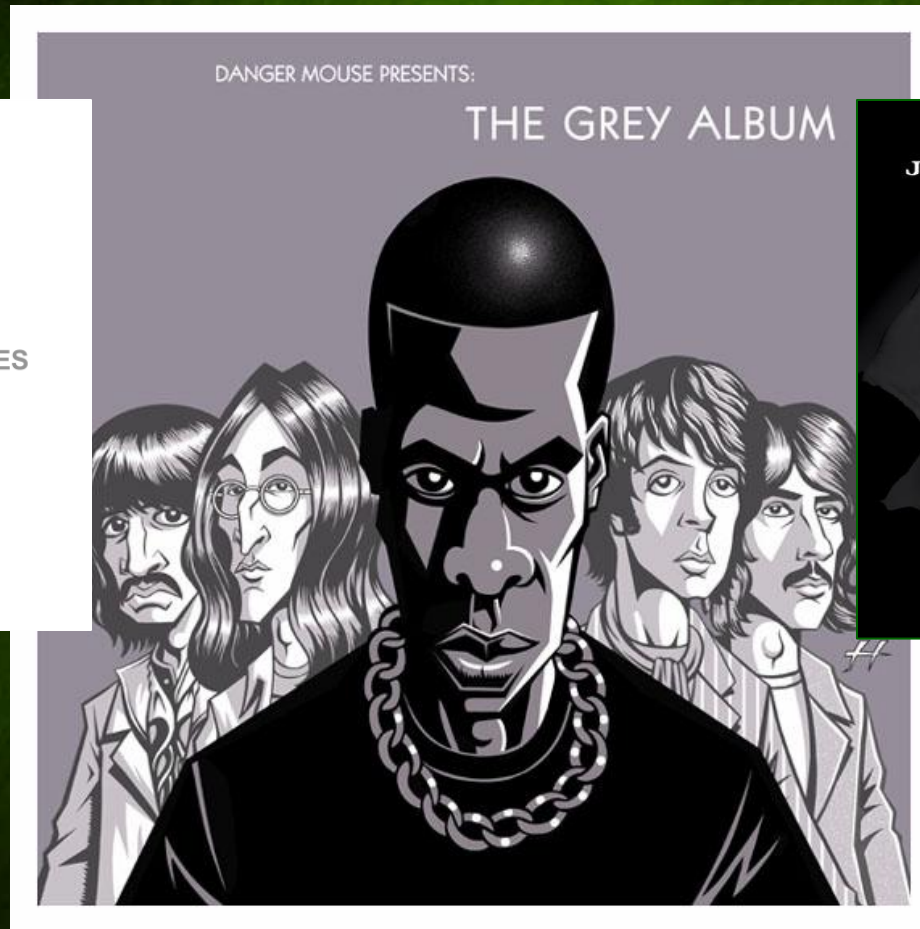
***Mashup**: An application, typically served on the web, that integrates elements from multiple sources to form a new service



I. Introduction to Mashups

*the term 'mashup' has its origin in the **music industry**

The BEATLES



JAY-Z THE BLACK ALBUM



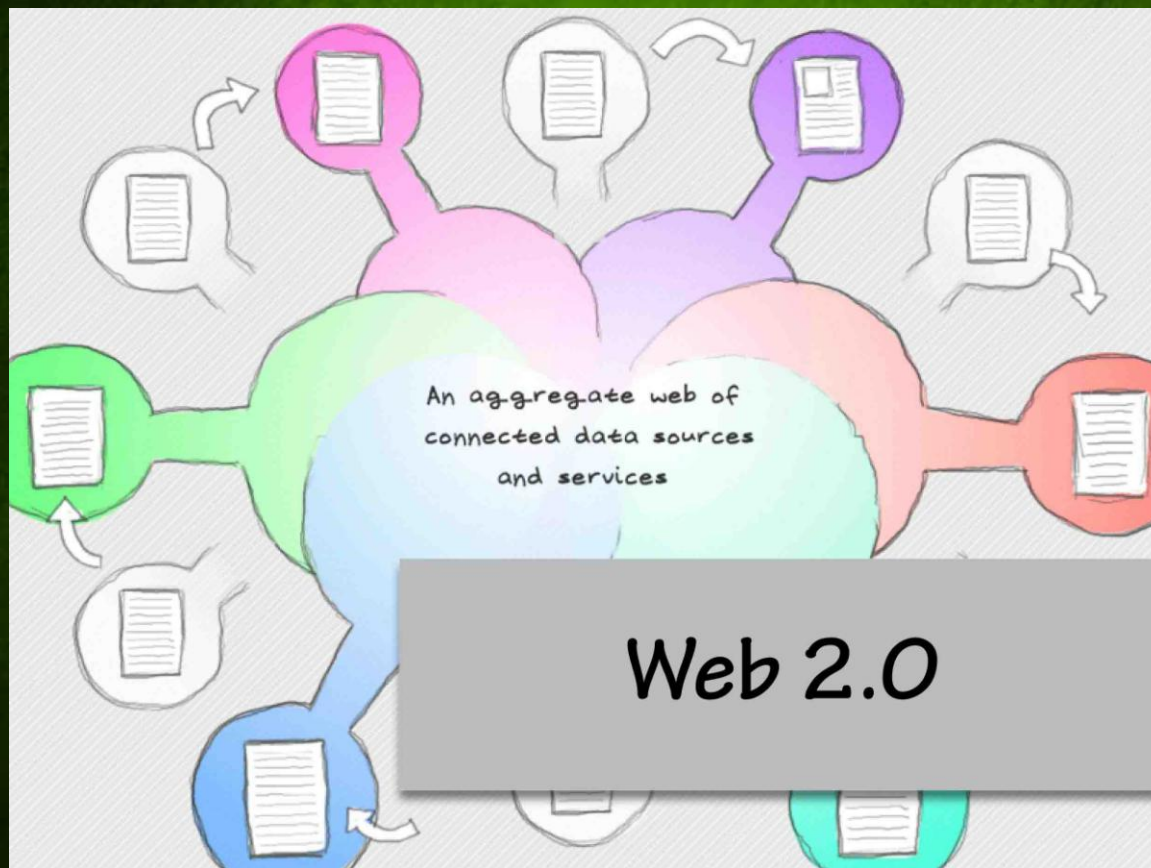
I. Introduction to Mashups

***Web 1.0:** the web as a conduit through which small bits of information relevant to very focused user needs is passed



I. Introduction to Mashups

***Web 2.0**: the web as a platform atop which various data sources and services can be stitched together according to user needs



I. Introduction to Mashups

***Q:** How do mashups work? **A:** web services

***Web service:** a software system designed to support interoperable machine-to-machine interaction over a network

- the masher-upper may write his or her own web service to clean web-available data so that it can be ingested by their mashup
- the masher-upper may also subscribe to a **data feed** that manages the data and publishes the data in a usable form (e.g., GeoRSS)
- the proprietor of a rich internet application may also make available a subset of their application's functionality for use in a mashup through an **applied programming interface (API)**
- sometimes, the proprietor doesn't provide an API, but masher-uppers find an *alternative* solution to using the application in their mashups (i.e., a **hack**)


```
1  import com.animation.CSVArray;
2  import com.animation.Bin;
3  import com.animation.AnimatedMap;
4
5  var fileName:String = "crimes.csv";
6  var latName:String = "latitude";
7  var longName:String = "longitude";
8  var myCSVArray:CSVArray = new CSVArray (fileName, latName, longName);
9
10 var dataColumns:Array = new Array ("temporalWeek");
11 var labelColumns:Array = new Array ("labelWeek");
12 var binArray:Array = new Array ();
13 for (var i:int = 0; i < dataColumns.length; i++) {
14     var bin:Bin = new Bin (myCSVArray,dataColumns[i],labelColumns[i]);
15     binArray.push(bin);
16 }
17
18 var key:String = "ABQIAAAAhjVwPC33U9Ph_NTg2AtD4RQs019z176na-d-7NF3sS6ek8haumCyfqzEBA";
19 var lat:Number = 38.895;
20 var long:Number = -77.000;
21 var scale:Number = 12;
22 var myMap:AnimatedMap = new AnimatedMap(key,lat,long,scale,stage,binArray,dataColumns);
```


II. Web Map Mashups

***web map mashup**: a mashup that takes advantage of a web map mapping service



II. Web Map Mashups

*Why web map mashups? **80% of data has a geospatial component**



The screenshot shows a Google Maps interface. The search bar contains 'pizza' and the search results are filtered for 'pizza near State College, PA'. The map displays several pizza restaurants marked with red pins labeled A, B, and C. The left sidebar shows the search results for these three locations:

- A Gumby's Pizza** - more info >
300 South Pugh Street, State College, PA - (814) 234-4862
★★★★☆ 5 reviews - Write a review
"Pizza quality here is inconsistent. It's a rare case of a place ..."
- B Faccia Luna Pizzeria** - more info >
1229 South Atherton Street, State College, PA - (814) 234-9000
Category: Pizza Restaurant
★★★★☆ 33 reviews - Write a review
"It's good food. The parking is a mess sometimes, but it's good because ..."
- C Canyon Pizza** - more info >
260 East Beaver Avenue, State College, PA - (814) 867-5672
★★★☆☆ 3 reviews - Write a review

The map also shows the Pennsylvania State University campus, including the State College Golf Course and the University of State College. The search results are sponsored by Lionmenus.com.

II. Web Map Mashups

*Why web map mashups? Democratization of Cartography

Wood D. 2003. Cartography is Dead (Thank God!). *Cartographic Perspectives*. 45: 4-7.

Cartography is Dead (Thank God!)

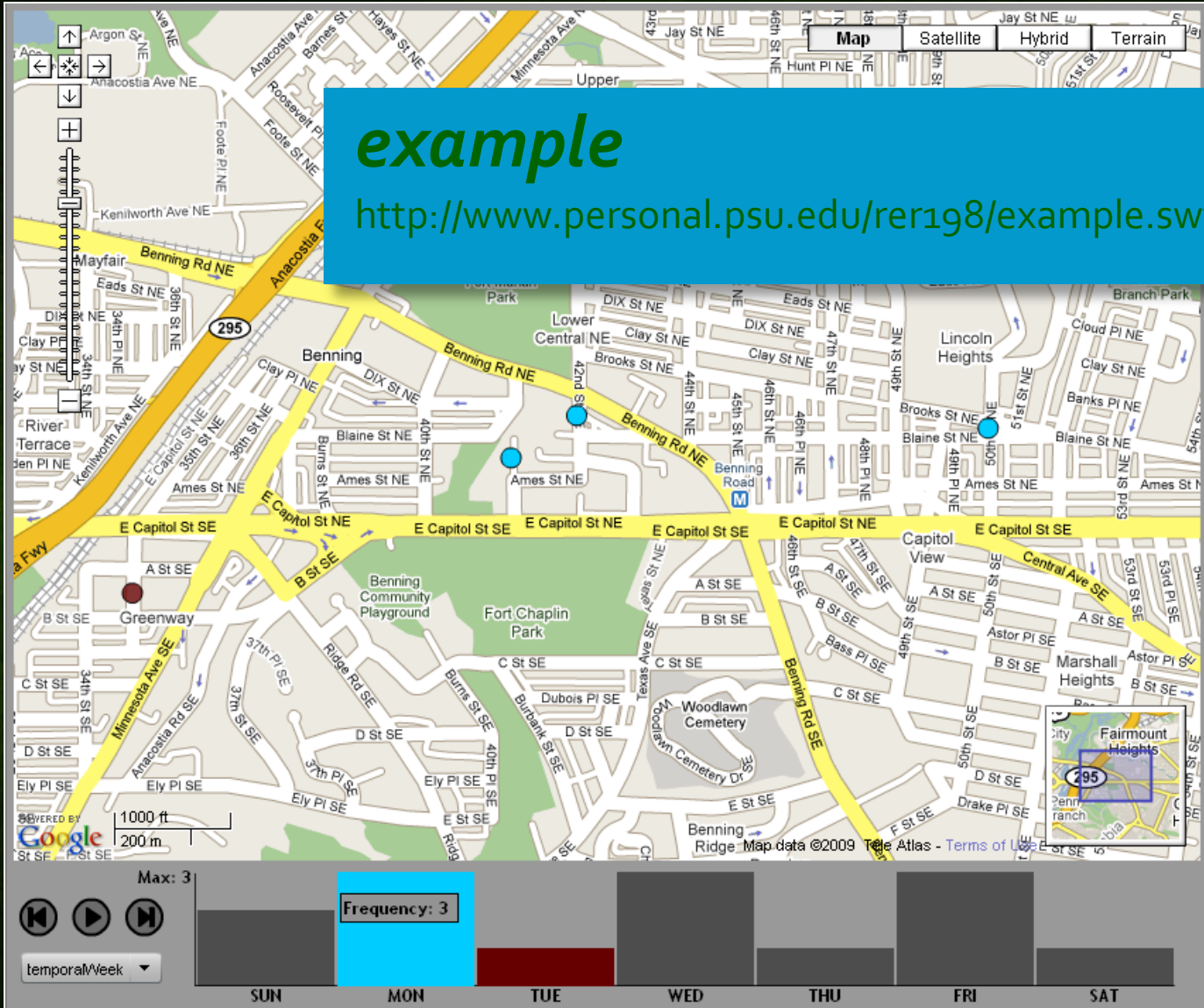
*Denis Wood
Independent Scholar*

Cartography Is Dead (Thank God!)

Let's admit it. Cartography is dead. And then let's thank our lucky stars that after the better part of a century mapmaking is freeing itself from the dead hand of academia.

That's the crux of the matter: even as cartography was shanghaiing mapmaking, university geography departments were shanghaiing cartography. Some mapmakers were happy to "upgrade" their calling by shedding the craft implications of "making" and taking on the title of "professor," but in general mapmaking imperatives were too universal to be constrained this way and so, no matter how badly university-based cartographers demanded it, few noticed, and even fewer paid attention to the attempts to make mapmaking a profession. Throughout this period - which we might call the Age of Cartography - people with every kind of background continued to make every conceivable kind of map. Today it's harder and harder for even cartographers to pretend they have much relevance.

How many people attended NACIS XXIII? A hundred-fifty? I've been told that 11,000 people took part in the most recent ESRI user's conference. Mapmaking? *By all means!* Cartography? *What's cartography?*



The Map!

<http://www.personal.psu.edu/rer198/applications/WhereInTheWorld.swf>

Thanks!

Questions?