

# Whirlwind Tour of Web Mashups

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# Remix



# What are Web Mashups

- A web application that combines data from more than one source into a **single integrated tool**. Its a web page that **provides a new service** using its own data and data from other sources. It **must access third party data** and process that data to **add value**. [Wikipedia]
- A web application that takes information from one or more sources and **presents it in a new way** or with a **unique layout**. It is a **web site** that combines **content data from more than one source** to create a **new user experience**. [About.com]
- A new service, that combines **functionality or content from existing sources**. These existing sources can be **Web Services, RSS feeds** or just **other Websites**. [Blog the Web]

# Mashups

- Content from a variety of sources mashed together to produce a brand new dataset
- What you are offering is a new service that produces richer datasets
- Concerns about privacy, the protection of intellectual property, and the ethics of sharing and borrowing information from online sources



# Mashup Architecture

- The Content Providers
  - APIs, screen-scraping, or web protocols such as HTTP, REST, RSS or other web services
- The Mashup Website
  - This is where the mashup is hosted but it is not necessarily where it is executed
  - Could be server-side, client-side or a combo
- The Client's Web Browser
  - Uses a web browser to interact with the mashup
  - This is where the the application is rendered graphically and where user interaction takes place

# Mashup Editors

- **Microsoft Popfly's Mashup Creator:** Allows users fit together pre-built blocks in order to mash together different web services and visualization tools through a drag-drop interface requiring little technical understanding
- **Yahoo Pipes!:** It is a flash-based tool to aggregate, manipulate, and mashup content from around the web. It provides a graphical user interface for building applications that aggregate web feeds, web pages, and other services. It is targeted towards slightly more technical people like developers but it also has a drag-drop interface
- **Google Mashup Editor:** It is the most advanced editor meaning that it is powerful tool for rapid testing and deployment of mashups but it is not very user friendly. It provides a rapid development framework for mashing feeds into Google services using XML, JavaScript, CSS and HTML

# Are Mashups New?

- Hype over Mashups primarily because it has become even easier for end-users to produce mashups themselves through mashup editors rather than SFTP/FTP-ing a file and then using scripts or other mechanisms to transform it
- The concept of the end-user being able to easily “drag-drop” and put together a hacked up application within minutes is what’s new

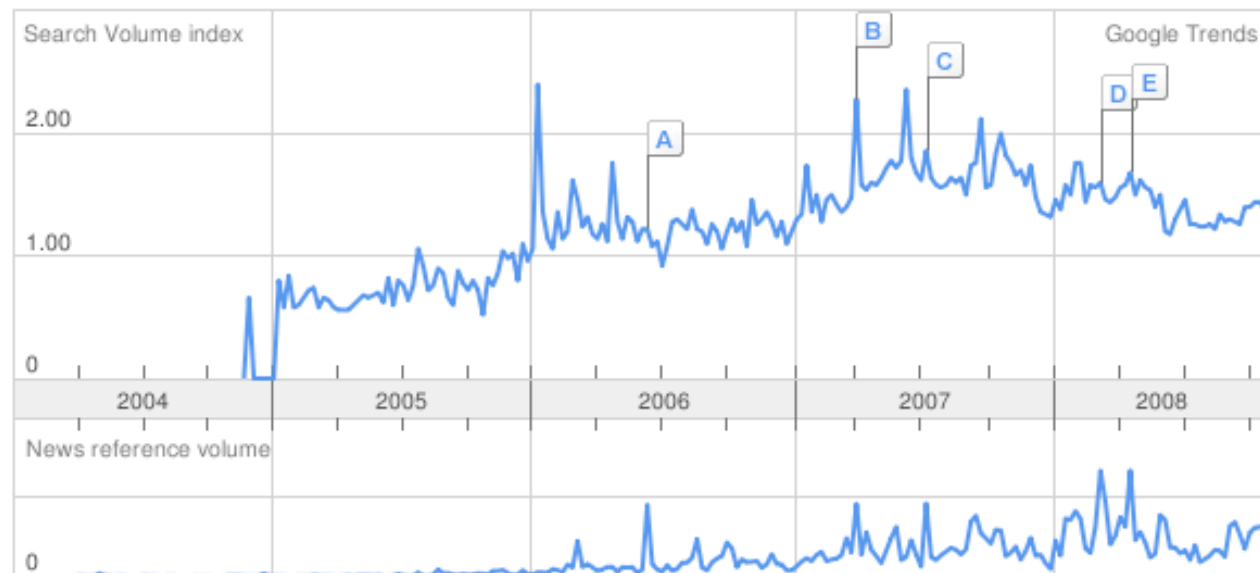
# Google Trends of Mashups



Searches [Websites](#)

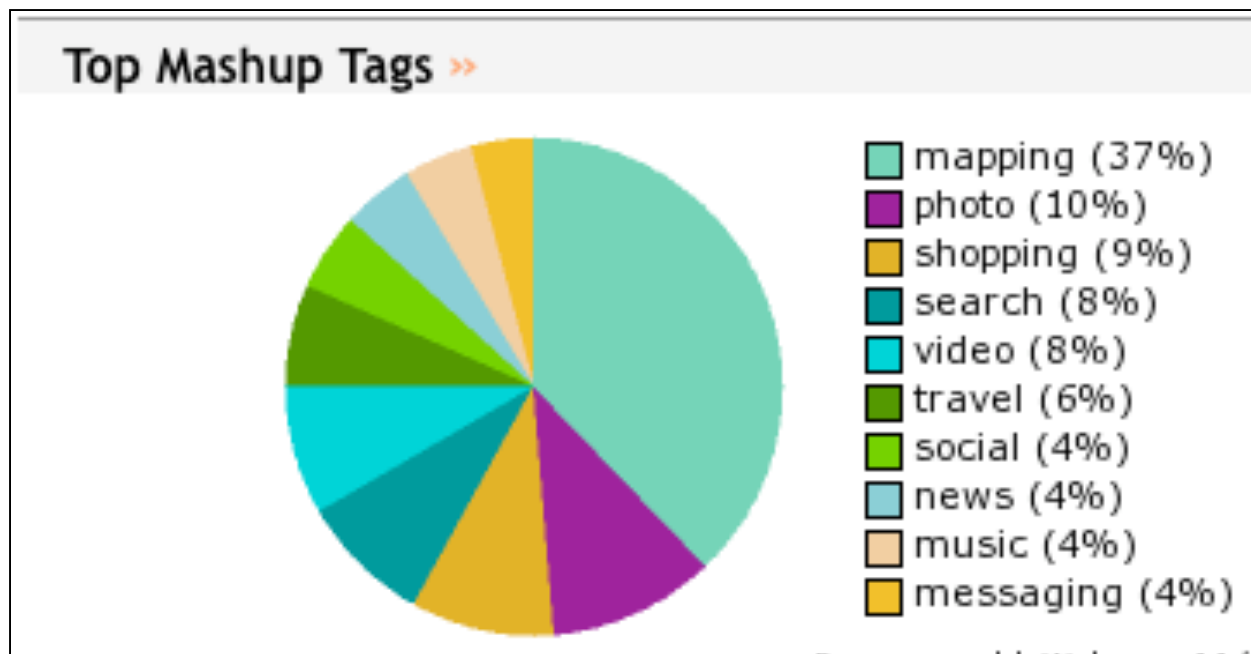
Scale is based on the average worldwide traffic of [mashups](#) in all years. [Learn more](#)

**mashups**  1.00

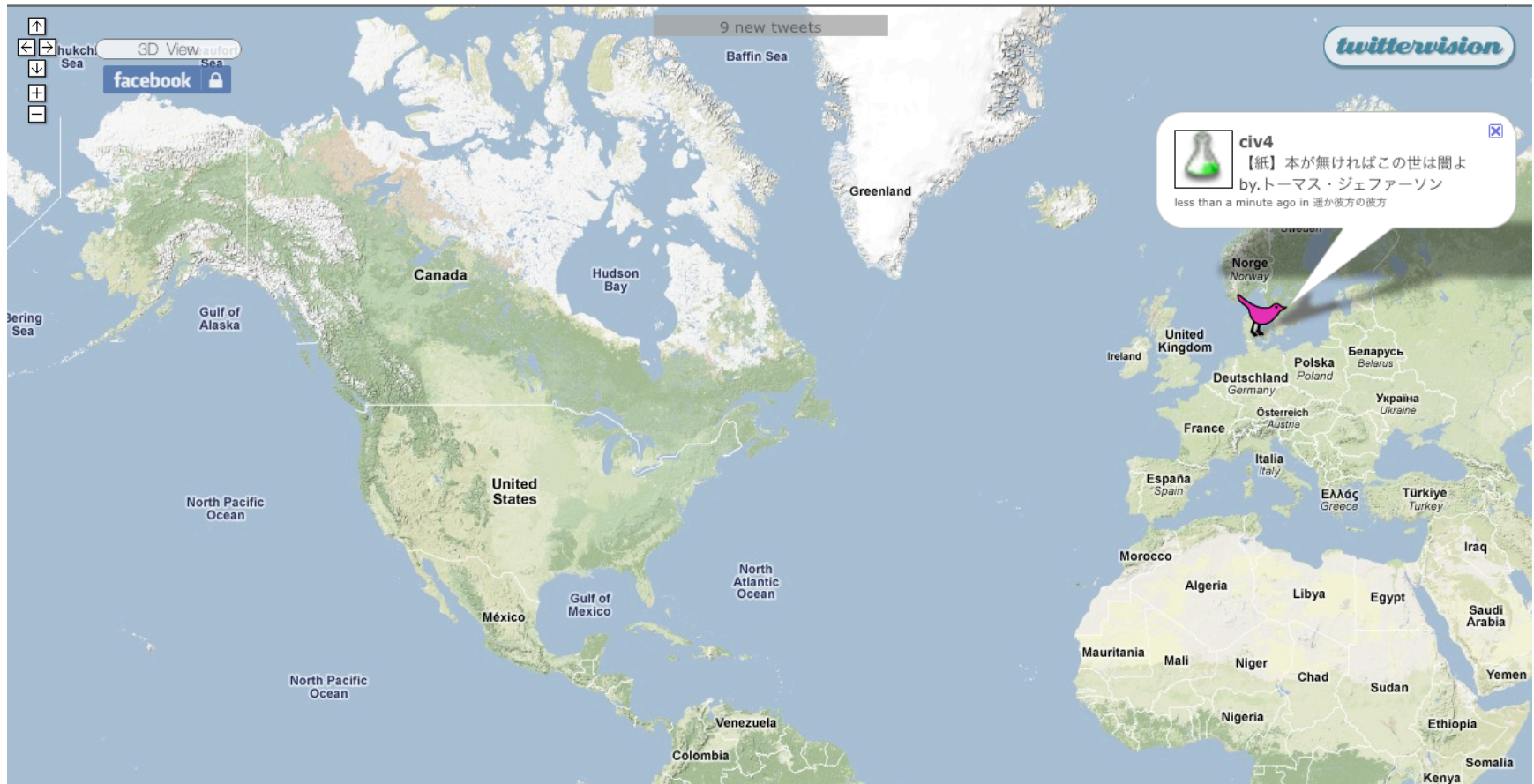


# Programmable Web

- 3,494 Mashups Listed
- ~ 3 Mashups Uploaded Per Day



# TwitterVision



# TuneGlue

The image shows a screenshot of the TuneGlue music map interface. On the left, there is a sidebar for the album 'ACCELERATE' by R.E.M., featuring a track list and a 'BUY ALBUM NOW' button. The main area displays a network graph of musical artists, with 'U2' at the center. The graph shows connections between various artists, including Velvet Revolver, Soundgarden, Stone Temple Pilots, The Cranberries, R.E.M., and many others. The interface includes a search bar at the top right with 'Musical artist' and 'u2' entered, and a 'PREFERENCES & HELP' link.

**Album Player (Left Sidebar):**

- 1 of 10
- << Previous Album
- Next Album >>
- ACCELERATE**
- R.E.M.
- 
- >> Living Well Is The Best Revenge
- >> Man Sized Wreath
- >> Supernatural Superserious
- >> Hollow Man
- >> Houston
- >> Accelerate
- >> Until The Day Is Done
- >> Mr Richards
- >> Sing For The Submarine
- BUY ALBUM NOW**

**Network Graph (Main Area):**

- U2** (Central Node)
- Velvet Revolver
- Soundgarden
- Fun Lovin' Criminals
- Stone Temple Pilots
- Iny Kravitz
- Skunk Anansie
- Bono
- Passengers
- Simple Minds
- Widespread Kings
- Michael Stipe
- Soul Asylum
- Mike & The Mechanics
- Widened House
- Tim Finn
- Midnight Oil
- Split Enz
- Hole
- Angel Fish
- Veruca Salt
- Garbage
- No Doubt
- The Cardigans
- Dolores O'Riordan
- The Cranberries
- K's Choice
- R.E.M.
- The Smithereens
- Edie Brickell And New Bohemians
- The Sundays
- 10,000 Maniacs
- Natalie Merchant
- Colvin
- Jann Arden
- Sarah McLachlan
- Paula Cole
- Alanis Morissette
- Tori Amos
- Jewel
- Natalie Imbruglia
- Madonna
- Sheryl Crow



# CribQ

Map Satellite Terrain

POWERED BY Google

FranciscoMap data ©2008 Tele Atlas - Terms of Use

Welcome Guest Share / Save

\$15 Donate

[Feedback](#) [Login](#) or [Register](#)

[Seattle](#) [San Francisco](#) [Chicago](#) [Boston](#) [Los Angeles](#) [Pittsburgh](#) [Santa Barbara](#)

**Your cribQ quest:** Price range: **\$0 to \$Unlimited** Containing: **No keywords**  
 Posted within: **7 days** Bedrooms: **0**

Listing types: **Apartments, houses, etc., and Sublets and short term** In: **Entire San Francisco, CA area**

**New** Hotlist Unmapped 60 / 789 pg 1 - + < > Hidden

**\$BR \$700** - 17 hours old - Short term  
**Comfortable, Bright, Safe, Cozy, Accessible, Student Guest Room**  
waller st. at castro st., panhandle (7)

A room near the center of the City is available in an attractive, well lighted, very clean home. We have created a small bright and sunny furnished student guest room by dividing a front room of our home with sliding wall panels. On two sides, solid, floor to ceiling panels close to create a private sleeping and study area. Another wall has a panoramic view of the city and bay from its large picture window. (See photos below.) The room contains a loft bed, desk, cable TV, Wireless Secure DSL, personal storage units & two bookshelves. Full access is available to the common living areas. Good physical condition is required to get up and down from the loft bed. We are located in the Buena Vista area near the Intersections of Castro, Divisadero and Waller Streets. Links to maps are at the bottom of this page. Several MUNI bus lines stop one block away at Haight and Divisadero. We are two gay professional men who don't smoke, don't do drugs, or drink except for an occasional glass of beer or wine with dinner. Our interests include: spending time with our large family in the East Bay, hosting international students, tennis, TV, computer software, computer hardware, windsurfing, Tall Ship sailing, cooking (including but not limited to, Chinese, Japanese, Filipino, Thai, and Southern US cuisine), travel, psychology, and Asian languages. We have two beautiful dogs and a bird. Included is a roof deck, DSL WIFI, a coin laundry on site, shared bath, kitchen, cable TV, a bicycle and tennis courts close by. Regular cleaning duties, including kitchen and bath room areas are shared by everyone. Home cooked meals are available at no extra charge. The rent is \$700 per month including all utilities. The deposit is \$300. This room is available beginning December 1st. If your response to this add includes a request for an application we will email one to you.

Email: [hous-923619013@crailslist.org](mailto:hous-923619013@crailslist.org)

**OBR \$1200** - 17 hours old - Rental  
**Unique studio**  
Taylor at Sutter/lower nob hill (7)

A unique studio apartment with a large walk-in closet which has been used as a small bedroom. It has a separate kitchen and entryway. North light. Washer/dryer in building. Close to public transp...

**OBR \$1750** - 17 hours old - Rental  
**Sunny Marina Studio on Quiet Block**  
Magnolia Street at Laguna marina (7)

Location: Across from Mascone Park, one block from Chestnut shops, blocks from Union Street shopping, close to Fort Mason, Marina Green, Fishermans Wharf, and one block from Downtown e...



Birdseye Streetview WalkScore

2D 3D Road Aerial Bird's eye Labels <<




# Mapdango

**mapdango™**  
Where do you want to explore?

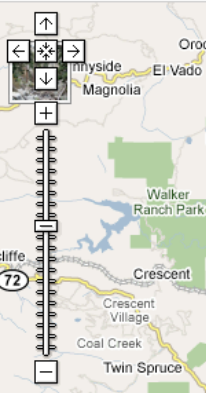
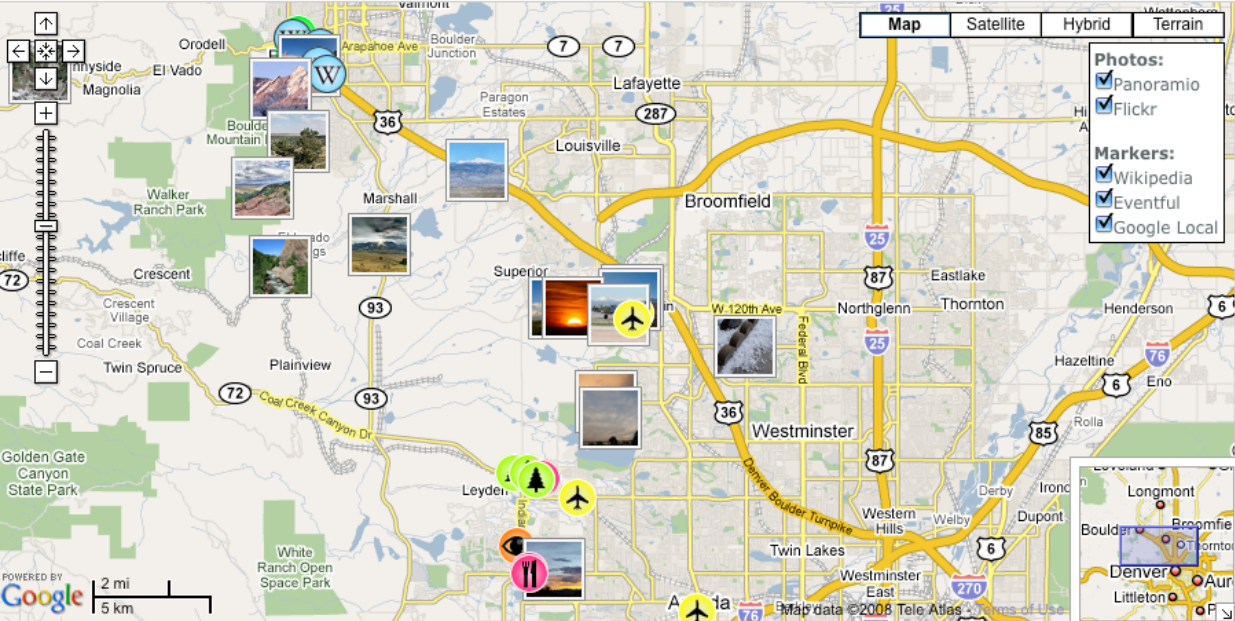

Exploring: **Boulder, CO, United States**  

Search:

[Dashboard](#) | [Map](#) | [Social](#) | [Countries](#) | [?](#)

Learn about a new place every day! [Subscribe to the RSS Feed](#) 

**Regional Map**


**Photos:**








- Panoramio
- Flickr

**Markers:**

- Wikipedia
- Eventful
- Google Local


Map data ©2008 Tele Atlas

POWERED BY  2 mi 5 km

 [Wikipedia](#) |  [Eventful](#) |  [Airports](#) |  [Hotels](#) |  [Museums](#) |  [Parks](#) |  [Train Stations](#)

Photos provided by Panoramio are under the copyright of their owners. [Panoramio](#)

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 [eventful](#)  
Events by Eventful

Content in the "Articles" section of this web page is based on the following copyrighted Wikipedia articles:  
Boulder, Colorado, Folsom Field, University of Colorado at Boulder, Naropa University, Sommers-Bausch Observatory;  
It is used under the GNU Free Documentation License. You may redistribute it, verbatim or modified, providing that you comply with the terms of the GFDL.

Airport, hotel, museum, park, restaurant, and train stations information provided by Google's Local Search API.

# Portals vs Mashups

	Portal	Mashup
Classification	Older technology, extension to traditional web server model using well defined approach	Using newer, loosely defined "Web 2.0" techniques
Philosophy/Approach	Approaches aggregation by splitting role of web server into two phases - markup generation and aggregation of markup fragments	Uses APIs provided by different content sites to aggregate and reuse the content in another way
Content dependencies	Aggregates presentation-oriented markup fragments (HTML, WML, VoiceXML, etc.)	Can operate on pure XML content and also on presentation-oriented content (e.g., HTML)
Location dependencies	Traditionally content aggregation takes place on the server	Content aggregation can take place either on the server or on the client
Aggregation style	"Salad bar" style - Aggregated content is presented 'side-by-side' without overlaps	"Melting Pot" style - Individual content may be combined in any manner, resulting in arbitrarily structured hybrid content
Event model	Read and update event models are defined through a specific portlet API	CRUD operations are based on REST architectural principles, but no formal API exists
Relevant standards	Portlet behaviour is governed by standards <a href="#">JSR 168</a> , <a href="#">JSR 286</a> and <a href="#">WSRP</a> , although portal page layout and portal functionality are undefined and vendor-specific	Base standards are XML interchanged as REST or Web Services. <a href="#">RSS</a> and <a href="#">Atom</a> are commonly used. More specific mashup standards are expected to emerge.

# iGoogle

The screenshot displays the iGoogle homepage with a satellite theme. At the top, the "iGoogle" logo is on the left, and a search bar is in the center. Below the search bar, a notification states "Your theme has been changed to Earth-light. Undo | Close" and a link to "New! Take a tour of iGoogle's new features". On the right, there are links for "Advanced Search", "Search Preferences", and "Language Tools".

The main content area is organized into several widgets:

- Alerts:** A vertical list of emergency and relief resources, including "Emergency Pre...", "ReliefWeb - H...", "Google Bookmarks", and "Google Reader".
- Official Resources:** A list of government and scientific agencies such as "Earthquake Watch", "Hurricane and S...", "Tropical Storms", "Incidentlog.com...", "AccuWeather.c...", "NOAA Satellite", "Satellite Tracking", "National Hurric...", "Tropical Adviso...", "Wunderground ...", "Weather Station", "Weather", and "Google Bookmarks".
- Google Bookmarks:** A section titled "Add bookmark - Edit bookmarks" with a "Show label: Official" dropdown and a list of links to FEMA, IRIN, ITIC, NCDC, NESDIS, NGDC, NHC, NICC, NIFC, NOAA, NODC, NWS, and USGS.
- Weather:** A widget for "Boulder, CO" showing a current temperature of 66°F, cloudy conditions, wind from the south at 2 mph, and 18% humidity. It includes a 5-day forecast for Today, Wednesday, Thursday, and Friday.
- Weather Station:** A map of the Northeastern United States showing weather radar data with various cities labeled.
- Earthquake Watch:** A world map with green pins indicating earthquake locations. It includes a "Satellite" view selector and a "Hugh Downs Reports" section about a "Tsunami warning after 7.7 Indonesia quake".
- Satellite Tracking:** A map showing the International Space Station (ISS ZARYA) being tracked.
- Tropical Advisories from Weather Underground:** A list of advisories including "Tropical Depression Noul - Western Pacific" and "Tropical Cyclone Two - South Indian Ocean".
- Hurricane and Storm Tracking:** A section with links to "TROPICAL DEPRESSION PALOMA", "Atlantic Tropical Weather Discussion", and "Eastern Pacific Tropical Weather Outlook".
- National Hurricane Center (Atlantic):** A section stating "There are no tropical cyclones at this time" and linking to "Atlantic Tropical Weather Outlook".
- AccuWeather.com Hurricane Watch:** A section titled "No Tropical Formation Expected" with a "Read More" link and an "AccuWeather.com Forecast" link.
- Tropical Storms:** A small map showing tropical storm activity.

# PageFlakes

Pageflakes

Click & Type Page Name Add Page

Sign up | Login | Reader | Make this my homepage

Community

Click here to create a page personalized with your interests or to change your location. Hide this

### Weather

Boulder, CO

Tuesday	Wednesday	Thursday	Friday
43°F	63°/34°F	39°/31°F	50°/30°F

Hourly Forecast | 10-Day Forecast

Powered by [weather.com](#)

### Boulder, CO (5)

#### Human bones found near Boulder likely result of suicide - Daily Camera, CO - 2 hours ago

By John Aguilar (Contact) An official with t... »

- Boulder gives incentive to chocolatier - Boulder County Business Report
- Boulder's Dinner Theatre gears up for "Producers"...
- Green jewelry store opens in North Boulder - Daily Camera
- Hall of fame seeks nominations - Boulder County Business Report

### Events in Boulder, CO, 80301, USA

Map Satellite Hybrid

1 Annual Members Meeting 11/18/2008  
2 Attitudes 11/18/2008  
3 B3 Jazz Project 11/18/2008

### Universal Video

Search Browse

funny Search

### Interesting photos

Send to a friend

### Email

Please configure your email account

### Calendar

Month View Day View Add Event

November 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1

### TV Listings for Boulder

Tue 11/18/08 2:00 PM DirectTV (change)

2:00 PM	2:30 PM	3:00 PM
KWGN-DT	No program found	
CW	No program found	

### Mother of all podcast feeds

- Turning pages on C
- Injunction would lin
- Kids in the Kitchen
- Through a Trader&

wimpyplayer

### Sponsored Content

# Map Mashups or Just Annotated Maps



**1001 Secret Fishing Holes**  
Over a thousand fishing spots in national parks, wildlife refuges, lakes, campgrounds, historic trails etc.

[GoogleMaps](#)



**2008 Basketball Tournaments**  
Location, seedings, and dynamically updating brackets for all of the Division I college basketball conference tournaments.

[GoogleMaps](#)



**2008 Beijing Olympics Torch Relay Path**  
See the path for the 2008 Beijing Olympics torch.

[GoogleMaps](#)

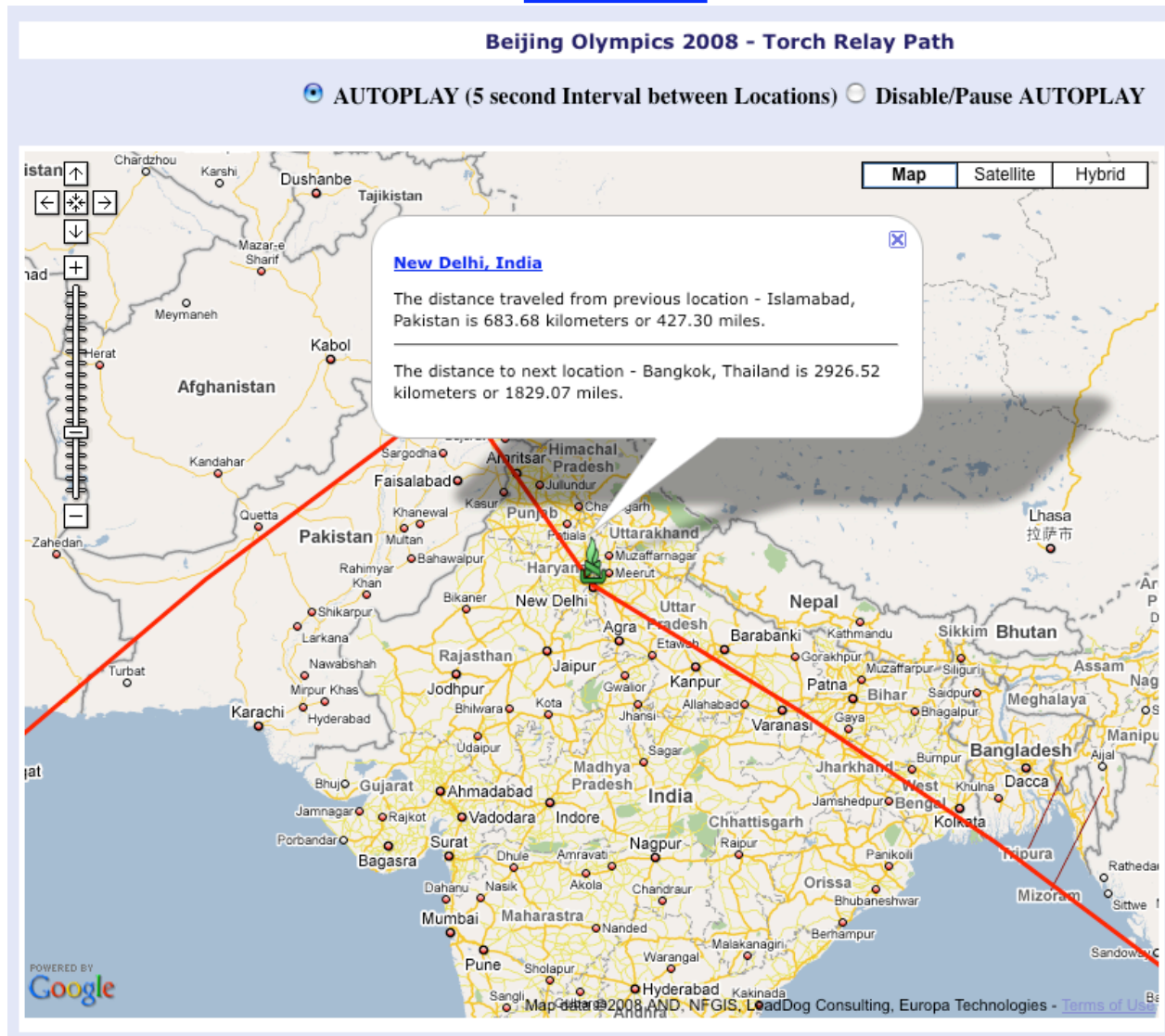


**2008 Formula One Map**  
Displays satellite images of all 2008 Formula One Grand Prix Circuits with race results and grand prix information.

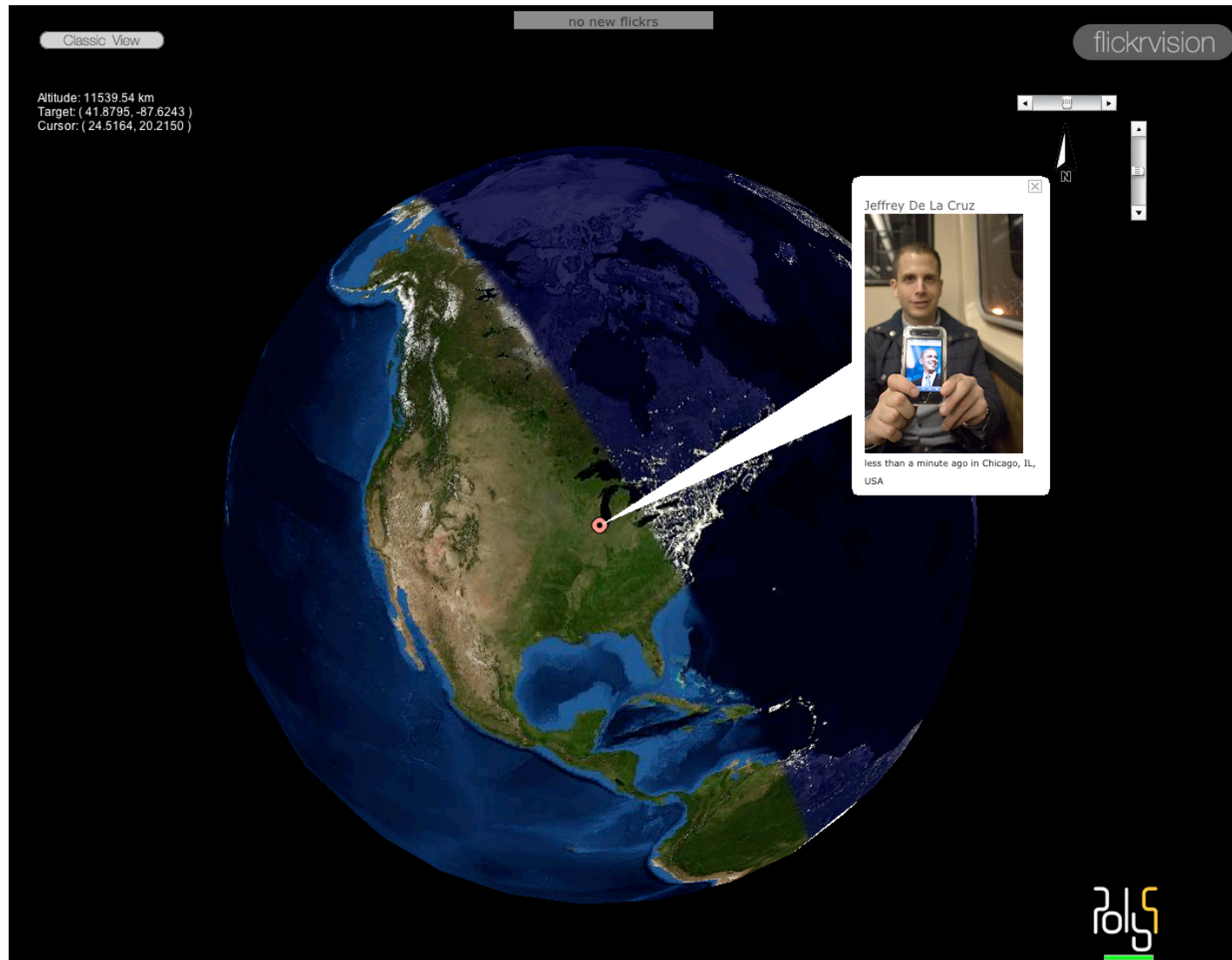
[GoogleMaps](#)



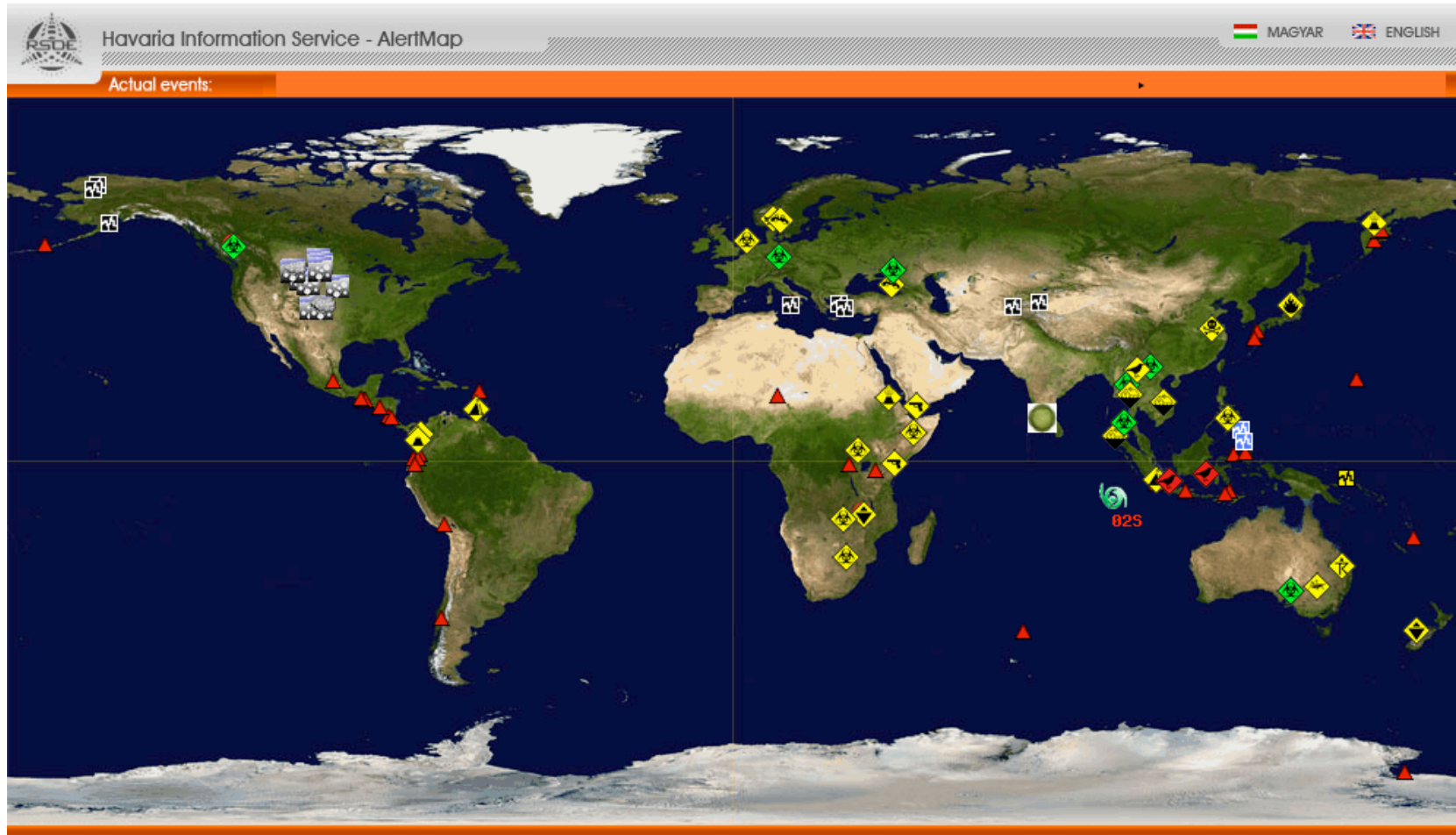
# 2008 Beijing Olympics Torch Relay Path



# FlickrVision 3D



# Emergency and Disaster Information Service





# JukeboxTube

**jukeboxtube**  
an excessive way to listen to music

**Wurlitzer Jukebox Parts**  
Wurlitzer Jukebox Parts available. Wurlitzer Jukebox Parts. Bid now!

**Jukeboxes For Sale**  
Buy New and Used Jukeboxes Here Everything You Need For a Game

Ad



YouTube

0:00 / 0:00

now playing  
radiohead street spirit

**coming up:**

-  Radiohead - Creep
-  U2 - Vertigo: Video
-  R.E.M. Losing My Religion

**add to playlist**

find video:

-  [R.E.M. - Losing My Religion](#)  
views: 7996238 rating: 4.90 length: 293 seconds
-  [REM - Bad Day](#)  
views: 2725372 rating: 4.90 length: 247 seconds
-  [R.E.M\\*\\*\\*Everybody Hurts \(no Amalia,you were not alone\)](#)  
views: 2623498 rating: 4.90 length: 337 seconds
-  [R.E.M. - Supernatural Superserious](#)  
views: 2224720 rating: 4.80 length: 224 seconds
-  [REM & Muppets - Furry happy monsters](#)  
views: 1872065 rating: 4.90 length: 206 seconds
-  [R.E.M. | Imitation Of Life](#)  
views: 1816668 rating: 4.90 length: 242 seconds
-  [REM - LOSING MY RELIGION](#)  
views: 1665425 rating: 4.90 length: 287 seconds
-  [R.E.M. - Everybody Hurts](#)  
views: 1533976 rating: 4.90 length: 337 seconds
-  [REM End Of The World As We Know It \(And I feel Fine\).](#)  
views: 1437646 rating: 4.80 length: 252 seconds
-  [R.E.M. Losing My Religion](#)  
views: 1113147 rating: 4.90 length: 261 seconds

# PopURLS

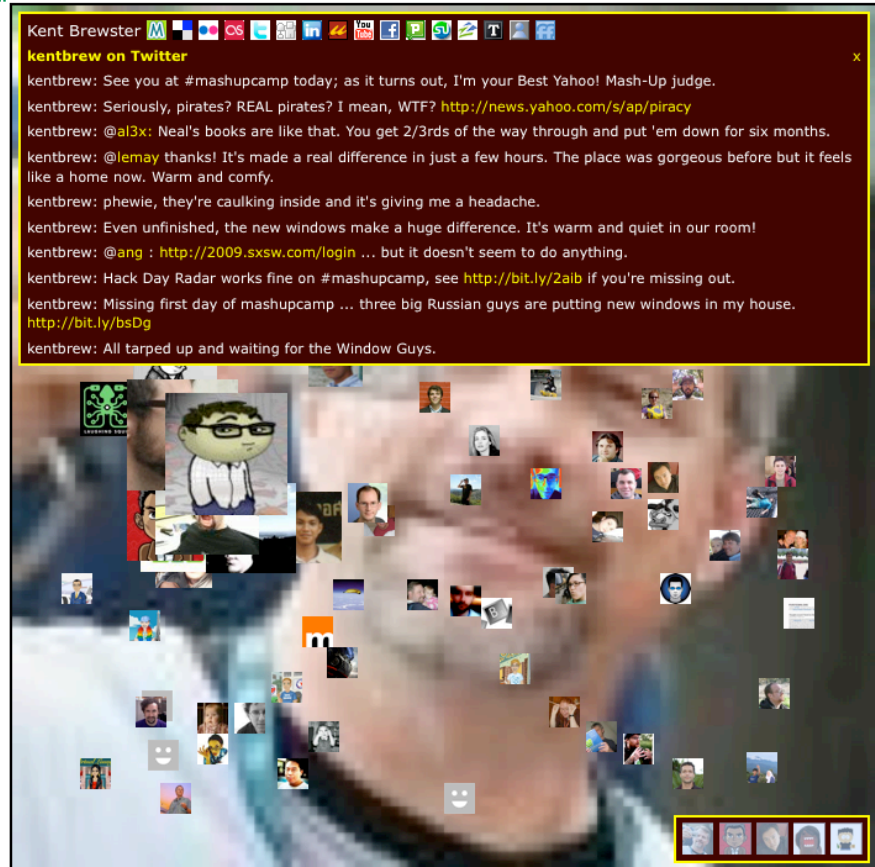
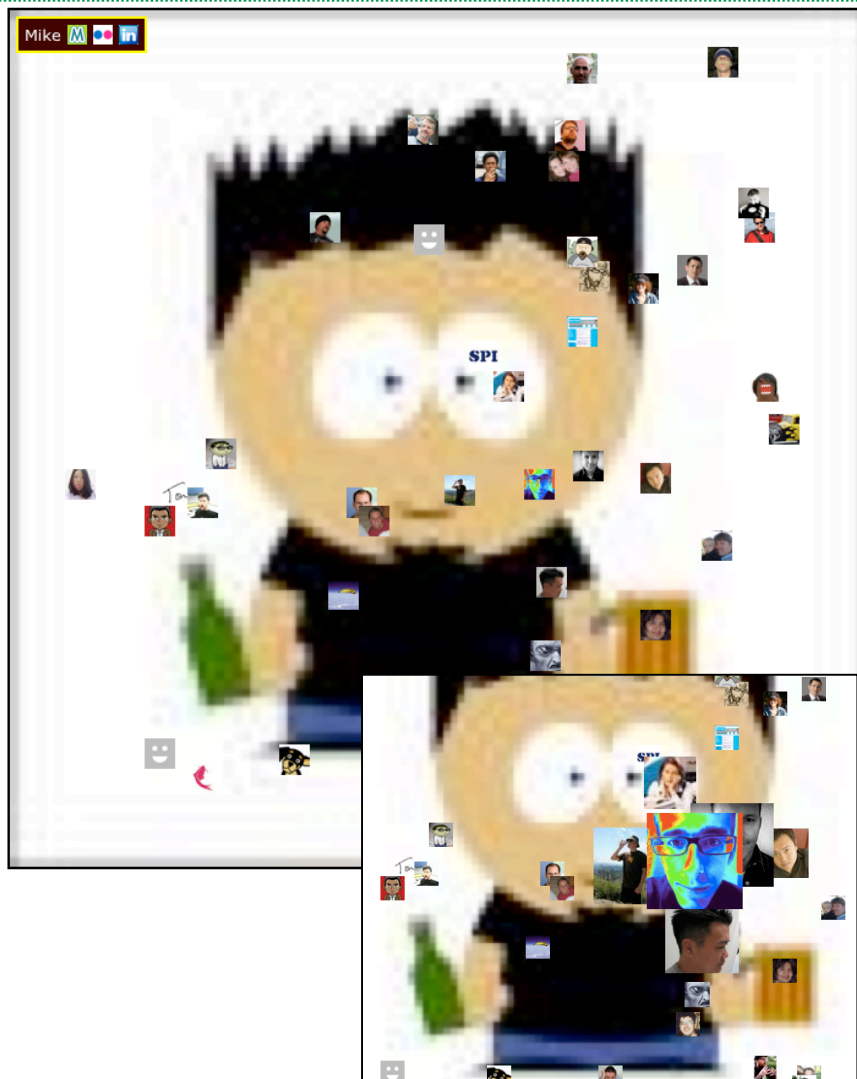
The screenshot shows the PopURLS website interface. At the top, there's a navigation bar with 'ALL POPURLS SITES' and a search bar. Below that, there are several content sections: 'popular today' with a list of articles, 'digg' with a list of links, 'delicious' with a list of links, 'reddit' with a list of links, 'flickr' with a grid of images, 'yahoo buzz' with a list of links, 'metafilter' with a list of links, 'tremors' with a list of links, and 'youtube' with a grid of video thumbnails. The layout is clean and organized, with clear section headers and easy-to-read text.

The screenshot shows the PopURLS website interface. At the top, there's a navigation bar with 'LAUNCH FULL SCREEN' and a search bar. Below that, there's a 'most viewed' section with a list of articles categorized by time: '1 hour', '24 hours', and '78 hours'. Below that, there's a 'right now' section with a map of the United States and a speech bubble that says 'Let me google that for you...'. The map shows various locations across the country, and the speech bubble is positioned over the map. The layout is clean and organized, with clear section headers and easy-to-read text.

The screenshot shows the PopURLS website interface. At the top, there's a navigation bar with 'popurils' and a search bar. Below that, there's a 'popular now' section with a list of articles, followed by 'popular today', 'digg', 'delicious', 'reddit', 'yahoo-buzz', 'metafilter', 'tremors', 'google', 'newsvine', and 'nytimes'. Each section has a list of articles with a right-pointing arrow next to the title. The layout is clean and organized, with clear section headers and easy-to-read text.

The screenshot shows the PopURLS website interface. At the top, there's a navigation bar with 'POPURLS BLUE EDITION' and a search bar. Below that, there's a 'security' section with a list of articles, followed by 'networks', 'pc maintenance', 'multimedia', 'virtualization', 'ecosystem collaboration', and 'whitepapers'. Each section has a list of articles with a right-pointing arrow next to the title. The layout is clean and organized, with clear section headers and easy-to-read text.

# FOAFster



# So What is a Mashup?

- Web Mashup = API [1] + API [2] + ... API [N]
- Creative social coding and programming
- Sharing, reusing, remixing and recycling electronic materials
- End-user customization and tailoring
- Offer new ways to explore design spaces and to rapidly create innovative prototypes

# Mashup Camp

- A collaborative unconference with a multi-track Best Mashup Contest
- For mashup developers, API and technology providers, and VCs looking to develop and discover the next big thing
- The format of Mashup Camp follows a Learn - Hack - Compete progression over a 3-day time period

# Thank You

## Any Questions or Comments?

### References

- [http://en.wikipedia.org/wiki/Mashup\\_\(web\\_application\\_hybrid\)](http://en.wikipedia.org/wiki/Mashup_(web_application_hybrid))
- <http://www.programmableweb.com/mashups>
- [http://webtrends.about.com/od/webmashups/a/web\\_mashup.htm](http://webtrends.about.com/od/webmashups/a/web_mashup.htm)
- <http://blog.sherifmansour.com/?p=187>
- <http://www.ibm.com/developerworks/xml/library/x-mashups.html>