2   *What Are Google™ Mashups Used For?*

google™ mashups:
how are they useful?

A Google™ mashup allows a user to visually display information in a way that other means of data representation cannot. Whether for personal reference or for the purpose of demonstrating an argument, when points are placed in their geographic locations on a map, some data become much more powerful.

MASHUPS FOR FUN Some mashups are made solely for entertainment purposes, although even these maps tend to have valuable qualities. David Troy's *Flickrvision.com* is a prime example. Created in 2007, Troy's mashup displays a constant real-time stream of photos as registered *Flickr.com* (a photo uploading and sharing website) users upload their photographs from different locations around the world. The *Flickrvision* map uses *Flickr API* to display a new bubble with a photograph uploaded moments before, with the pushpin placed on the "geotagged" location selected by the photo uploader, or if no location is specified, on the estimated location of the uploader (Lowensohn, 2007). The result is a mesmerizing, constantly changing website, broadcasting a steady flow of pictures taken around the globe (three examples shown) (Troy, 2007-2009).

Flickrvision 1
Displaying a photograph uploaded one minute ago in Liverpool.

Flickrvision 2
A few seconds later, another bubble pops up, this time showing a photograph uploaded in Singapore.


Flickrvision 3
This time the photograph uploaded comes from Cagliari, Italy.

Unlike any other stream of photos being uploaded by thousands of users, *Flickrvision* allows its viewers to conceptualize the locations of these photographs as the pushpins and bubbles jump around the globe to represent the location of the photo.

MASHUPS FOR EVERYDAY LIFE Adam Ostrow, Editor-in-Chief of *Mashable.com*, lists some of his favorite Google™ mashups in his article, "13 Must-See Google Maps Mashups". Included in his top picks is a telephone prefix locator, which allows users to input the area code and first three digits of a telephone number and see a mapped estimated location of the call's origin. Also on Ostrow's list is a mashup entitled "TaxiWiz," which lets users type in start and end points to a proposed cab ride and see the best route and an estimated fare, available for 21 major cities (shown at right for Boise, Idaho). Another popular mashup that Ostrow includes on his list is *WalkJogRun.net*, a map that lets users plot a route on the map by clicking a mouse, then calculate distance, time, and elevation. Users may even use their home addresses or zip codes to look up routes that have already been plotted by other users in their areas (Ostrow, 2007).
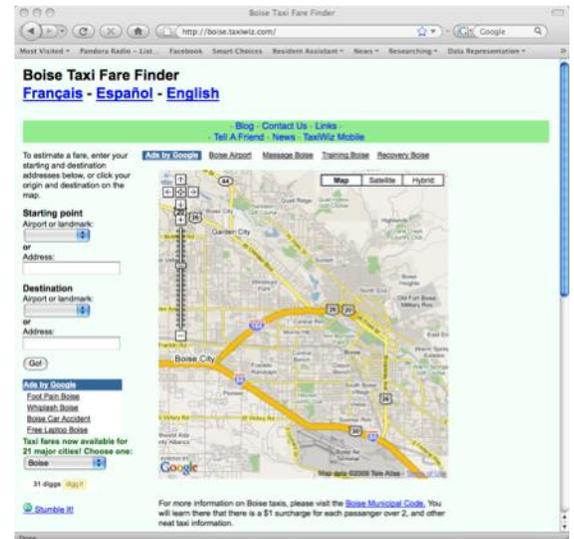
TaxiWiz, Boise, ID
TaxiWiz.com, available for 21 cities as of April 2009, allows users to enter a start and end address and receive an estimated cab fare for the trip (Taxi Wiz, Inc., 2007-2008).

These mashups are more complex examples of what is often a fun hobby for many individuals. For less technologically advanced individuals, a simpler mashup that plots the locations visited on a recent trip to Europe or favorite thrift stores in the US, can be equally entertaining. Pietroniro and Fichter (2007) explain, "In the same way that people can blog and share news stories, they are also creating online maps that can be a travelog, tour of their town or list of historical buildings."

MASHUPS FOR A CAUSE While these mashups serve a useful purpose in providing users with helpful information, their primary functions do not involve making or supporting a claim. Online mappers have found another useful application for Google™ mashups, namely, creating visual representations of information that indicates or supports a need for change in a community. In the spring of 2006, Trinity College freshmen Jared Kazanovicz and Michael Miyashiro teamed up with a local Hartford organization, Hartford Areas Rally Together (HART), to create a Mashup of Hartford's "Problem Properties," hoping to meet a few ends. Prior to the creation of the map, all information on these buildings lived on paper at HART's downtown office. The map's first intention was simply to provide a visual representation of where Hartford's run down and abandoned buildings are, allowing HART's team to better conceptualize the information. The map's second purpose was to allow HART to have a more efficient system for storing and retrieving their data on each property. The map's creators also hoped it would serve as leverage for

both community activists and the owners of the properties themselves to work toward lessening the number of neglected and abandoned buildings in the city of Hartford. Furthermore, they hoped to eventually link the addresses of the problem properties to the number of 911 calls related to them, eventually finding a way to show Hartford residents the monetary price of maintaining the abandoned buildings.

In its completed state, the Problem Properties Mashup (shown here) includes more than 60 neglected properties in Hartford's Frog Hollow neighborhood, and has since been expanded to represent other neighborhoods as well (Trinity College, 2006).

Each pushpin, when clicked, reveals a picture of the lot or building, an address, Parcel ID number, and the owner's name, address, and phone number. Not only is HART now able to access its information as it is stored and organized on the Internet, but the contact information for the owners of the buildings was made available to the public. In Jane Gordon's May 2006 New York Times article "Mapping the Invisible City Outside Their Walls," HART's executive director Marilyn Rossetti explains her thoughts on the creation of the Problem Properties Mashup: "Now we're asking: 'What else can we do with this? Are there correlations to things?' … It's one thing for a resident to go to City Hall and say, 'Here's what we think.' It's another thing to have a map and statistics. It makes people the experts" (Gordon, 2006).   This kind of community-based Mashup will be the focus of this paper.

HART's Problem Properties Mashup
The creation of this map not only helped HART organize and visualize their records of Hartford's abandoned and neglected properties, but provided the public with a database of these buildings and the contact information of their owners. Furthermore, the map serves as a powerful visual for community activists to act on this problem in Hartford (Trinity College, 2006).