How Google Maps Can Display Encyclopaedic Data in a Regional Context: Highlighting Issues, Testing Solutions and Displaying Changes.

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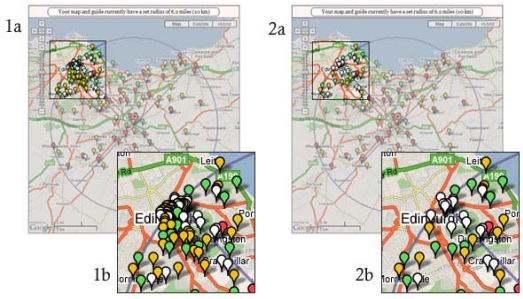
This project created a web service to make regional guides from the Gazetteer for Scotland database. These guides displayed a variety of information, filtered by interest and split by region.

This poster shows how the Google maps included in the web service output were further analysed to solve problems in displaying these data in this regional manner…

"I wanted an area guide around Dalkeith, but it's just full of sights in Edinburgh! I wish this effect could be minimised so the data can be refocused on Dalkeith….."

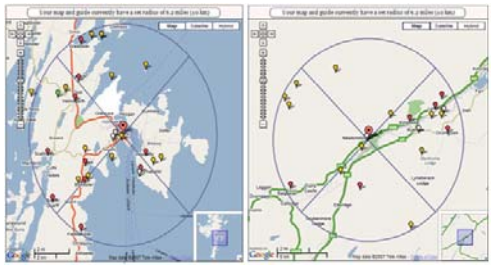
*Using Perl, a **city interference removal tool** was implemented, giving features from a big city (within the scope of the guide) less weight, allowing the focus to be shifted back to where the user intended (see right, top).*



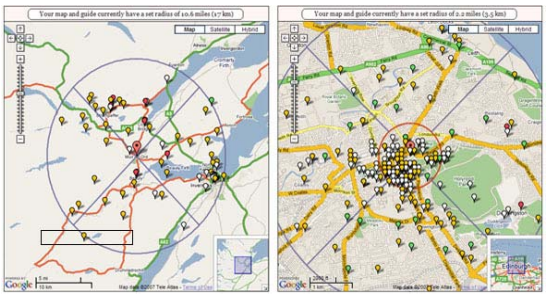
Before (left) and after (right) city interference removal

"But oh no! Why is this happening? Some data points are outside the scope of the area guide and the bounding circle looks crazy!"

Data point accuracy is an important issue and in this case, points were located incorrectly due to inaccuracy with the conversion between coordinate systems. The unusual shape of the bounding 'circle' (see right, bottom) is due to the projection system used and therefore changing the shape would create more inaccuracy.



Map for Lerwick (left) and Newtonmore (right)



Data inaccuracy (left) and the need for a central zone (right)

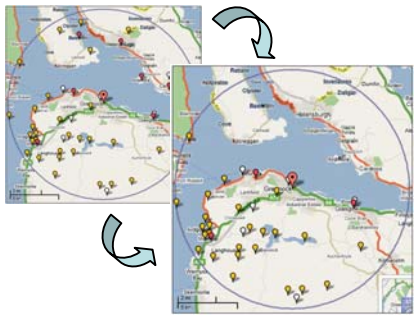
"Those changes really helped. But if I make a guide to Edinburgh (or any large town), the regions (N, S, E, W) don't seem to fit as most of the data are in the city centre."

Thanks for the feedback – as can be seen to the left, a central zone is now included for large towns (red circle)– both on the map and in the display of the data – hope that helps!

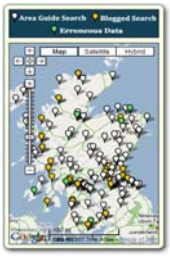
"This guide to Greenock is rubbish! I can't travel to all the suggested places, there's a great big river in the way and I don't own a boat!"

I agree – The problem is this database has no data on travel times or land cover. But Google maps have these data layers – a script was written to use these layers (when made available) to remove unrealistic suggestions.

"Ahhh, that's a bit better. No crazy journeys are suggested now, just a couple of sights near the ferry routes – much better!" *(see example, right)*



Removing features using Google data layers



Feedback blog map

"I'm not sure I like everything that was done with this project – I wish I could let my feelings known and locate the mistakes…"

Well, the feedback blog allowed users to talk to each other about any issues with the guides and tag the locations where problems existed. These errors (and the locations of searches) could be shown on a Google map – see the final map to the left (green marker = error).