Community maps using GIS

Community mapping projects create dialogue between planners, communities and policy makers. Community mapping facilitates bottom-up information gathering – but remember that the map itself is not an outcome

GIS for participation (GIS-P) focuses on people talking together through the use of maps, is being explored by a team at York University, led by Dr Steve Cinderby. 'The technical requirements of GIS analysis are still quite high, and I think it's unreasonable to ask communities to get involved in that kind of activity,' says Cinderby.

'GIS-P concentrates on incorporating and capturing local knowledge from photographs and local datasets via conventional focus groups, with a participatory mapping exercise to collect the collective viewpoint. We put this data into GIS for community use.' Working with a community in Sawford, the team collected data on the development of a 'health walk' for a riverside area. 'The community told us about their crime concerns, focused on a riverbank path where vegetation and undergrowth had grown up.'

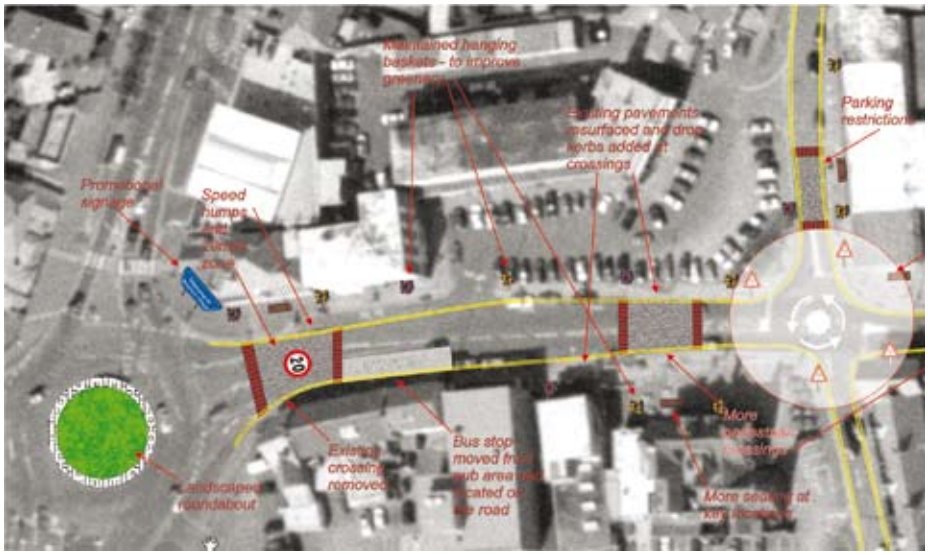
The spots that the locals considered worrying didn't, however, match reported crime patterns. Crime was reported – or logged – by the authorities along the nearby road network. The community knowledge was key to tackling the real issue of potential crime spots. Without community perceptions of crime being addressed, it was unlikely that the walk would be used by the community.

The second technique in development by the team is 'rapid appraisal participatory GIS', or RAP GIS. This is a development of the GIS-P method, involving going out into communities and creating maps 'on location' using one-on-one mapping with community members. Certain people won't attend focus groups, and this approach could help the authorities to capture input from hard to reach groups. It enables rapid scoping of a local area, albeit without in-depth discussion and dialogue, and with less control as to who participates.

GIS-P is also useful for collecting multiple views of space usage – different groups see a particular space very differently, as a mapping exercise with young and old people in the same city square revealed.

Similarly a mapping exercise in Bispham, Blackpool, identified a wide range of viewpoints how to develop the a car parking area (see below). In these cases, says Cinderby, we can use the GIS and visualisation techniques to help communicate those viewpoints to other groups and so help to inform the debate.

The researchers see these techniques as a move towards more equitable participation in the UK. 'Many of the mapping sessions that we've done are really consultations,' says Cinderby. 'The issues are of interest to local councils, or to different stakeholder groups. They're not coming from the community upwards. To me, that isn't real participation. But I think that using GIS-P approaches we can begin overcome these issues.'



Community noise mapping

The Mapping Change for Sustainable Communities project, based at UCL and run with support form the UrbanBuzz knowledge exchange programme, sprang from the idea that communities need to feel more connected to the changes happening across the Thames Gateway. Four communities across east London chose the issues they wished to map, ranging from history to antisocial behaviour to noise.

In one of London's noisiest areas, the Royal Docks, Newham, locals used their maps (above) to record and map noise levels. The Royal Docks is close to London City Airport (LCA), and local residents used noise meters to make more than 1,500 measurements of day and night noise levels. With the team's help, they collated these on their own 'noise maps', using a reporting system designed for them by UCL, community organisations London 21 and LSx, and biomapping artist Christian Nold (see page 14).

The data was analysed using a Geographical Information System (GIS) to produce noise pollution maps for the area. 'We didn't set out to be completely scientific, although we worked out a recording method with timed readings and survey sheets,' says London 21's Louise Francis. 'We wanted to bring in a more subjective side, to see how people felt about the noise. This was as important to the community – and to the local authority, as it turned out – as knowing the noise levels,' she adds. The noise map has been presented to the local authorities, who have agreed to investigate the matter.

GIS for participation
http://www.york.ac.uk/inst/sei/welcome.html

Mapping Change for Sustainable Communities
www.urbanbuzz.org

http://uk.youtube.com/user/uclurbanbuzz (videos)

http://communitymaps.london21.org/version2/includes/CommunityMaps.php