SoftGIS: web-based mapping surveys for collaborative Impact Assessment

Ian Babelon
EMA Group, Land & Water Resources Engineering, KTH, Teknikringen 76, 100 44 Stockholm, Sweden

SoftGIS in a nutshell:
- A Public Participation Geographic Information system (PPGIS) for land-use planning, typically in early comprehensive planning
- Mapping surveys: interactive Bing or Google maps with customized questionnaires, drag-and-drop markers, and pop-up text boxes to comment locations
- Used for mapping “place values” – values/views (environmental, cultural, social) which lay residents have about places
- “Soft” = residents’ knowledge and views about places. Complements quantitative and other “hard” expert GIS data
- Data results are queriable and compatible with professional GIS

Opportunities & Challenges
- Affordable
- Customisable
- Can save time and hassle
- Tried-and-tested
- Reaches more social groups than traditional consultation
- Decision support
- Maps tensions in place values early in the planning
- Difficult to map spatial relations
- Misuse or poor communication kills the tool
- Requires political support
- People can get tired of surveys
- Planners may already know
- Can make obvious competing interests

Conclusions
- SoftGIS is meant to be combined with other methods, both digital and physical
- Be clear about the context and purpose of participation: Why, who to involve, how, and for whom?
- Continuous follow-up is vital, especially about how survey inputs serve planning
- Helps to build trust and dialogue
- It can be difficult to stimulate citizen interest in planning
- Does not fit all kinds of spatial cognition/ people
- Long-term education about spatial thinking can improve collaborative planning

SoftGIS can be used to:
- Assess impacts – EIA, SEA, SIA
- Collect baseline data: e.g. survey ecosystem services
- Identify attractive development locations, including alternatives
- Localise compensation
- Follow-up

Methodology
Case-studies: 3 SoftGIS tools used in Finnish and Swedish municipal planning
- Interviews: planners and softGIS developers
- Literature review: scientific and land-use policy literature
- Participant observation: professional seminars on theme of digital public engagement

Question: How can softGIS support collaborative planning?

Example: excerpts of a survey response
Context: municipal surveying of green infrastructure in Sollentuna, Stockholm

1. What are the place’s qualities?
“Pleasant park, nice places to sit... Good meeting place, winter activities, sports, allotments... Investment that benefits many residents”

2. Tell more about why you like it...
“The area around Edsvik will be developed into one of the most attractive in Stockholm. Continue with the work!”

3. Say more about how Sollentuna’s green areas can be improved...
“...The park is in a central location. Make it more accessible from the town center.”

Further research:
- More longitudinal research
- Measure the costs and benefits of public participation methods in general
- How to systematically link participation tools (e.g. softGIS, charettes, working groups) with professional tools (e.g. CAAD, 3-D virtual city models, GIS) through geo-referencing
- How to connect all inputs of public participation to one big map

Further information:
ibabelon@kth.se

Some softGIS suppliers:
- Mapita, Finland
- Spacescape, Sweden
- Projektet Medborgardialog at SKL, Sweden
- Commonplace, UK

Acknowledgments
Special thanks to Berit Balfors (KTH) and Gustav Malm (White Arkitekter); the teams at Mapita and Projektet Medborgardialog,Spacescape, and all other interviewees.