

King Fahad University of Petroleum & Minerals

Geographic Information System

**Involving Public Participation into Urban Planning
by using GIS**

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Introduction

- ✘ Mostly applied in all fields including application in solving urban problems
- ✘ Number of people using internet allover the world has been tremendously growing
- ✘ Tool of visual communication between different concerned parties
- ✘ PPGIS
- ✘ Participate in the design of their own neighborhood.

GIS Background

✘ Benefits of Using GIS

1. Doing existing task more efficiently
2. Doing New tasks not previously possible
3. Data Management
4. Scenario Modeling (What if ?)
5. Value-added Processing
6. Information Provision

GIS Background

✘ The Application of GIS

1. Environmental Resource Management
2. Emergency Planning and Routing
3. Provision of health, educational or retail services
4. Facility Management for the utilities
5. Highway Maintenance and accident monitoring
6. Market analysis
7. Population analysis and prediction

Urban Design Development along with GIS Evolution

PPGIS

“Design of Systems that empower public and individuals and encourage public participation in decision making using web based GIS “

- ✘ Future problems associated with a certain public projects could be eliminated by simply involving the main users

Urban Design Development along with GIS Evolution

PPGIS Advantages:

1. The availability of the spatial data from any location and at any time.
2. The physical space is not a restricted limitation any longer.
3. More opportunities for people to contribute.
4. Public would feel more free to communicate their own opinion in an unknown and non-confrontational environment.

Urban Design Development along with GIS Evolution

PPGIS Obstacles:

1. Training requirements
2. Access to the internet
3. Legal issues

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Example of web-based PPGIS:

	Project name	Internet Link
US1	Pilsen Project – Urban Design Visualization of Pilsen	http://www.evl.uic.edu/sopark/new/RA/#sub1
US2	Orange County Interactive Mapping, developed by the city of Orlando – Florida	http://www.cityoforlando.net/public_works/esd/gis/interactive_mapping.htm
US3	Resource Management Mapping Service – Illinois	http://space1.itcs.uiuc.edu/website/rmms/
US4	Wyoming Oil and Gas Resource Assessment Mapper	http://wogra.wygisc.uwyo.edu/wyoims2/wims2awogra.html
US5	Erie International Airport	http://gis.cseengineers.com/erie/viewer.htm
US6	Town of Clover Planning Analyst	http://www.lic.wisc.edu/clover_web/history_bkgnd.htm
US7	I-map Delaware River Basin	http://bassriver.state.nj.us/imap_delbasin/
UK1	Virtual Slaithwaite Project	http://www.ccg.leeds.ac.uk/slaithwaite/
UK2	Bradford Community Statistics Project	http://www.besp-web.org/mapguide_site/maingeo.cfm
UK3	“Openspace” of Salford University	http://www.ties.salford.ac.uk/pg/xiao/openspace-main.html
DE1	„Bürgerbeteiligung Online“ – landscape plan Königslutter	http://thuja.land.uni-hannover.de/entera/mapserv.phtml
DE2	„Vernetzter Bebauungsplan“ – Landkreis Freising	http://fs.mapsailor.de

Urban Design Development along with GIS Evolution

Implementing PPGIS in Arab world:

- ✘ It has not been evolved yet
- ✘ Information technology development (e-government)
- ✘ Internet connections & GIS have been greatly developed in the past 10 years

Launching PPGIS in Arab world:

- ✘ Planners & politicians
- ✘ Developed by Arab themselves
- ✘ First introduced in universities, then to community

Urban Design Development along with GIS Evolution

Expected Obstacles in the Arab Community:

- 1.** The unavailability of the internet connection and lack of technology culture
- 2.** Resistance of some individuals to participate due to their passive attitude
- 3.** Most people will not be able to deal or understand spatial data which will lead to miscommunication
- 4.** Urban context of most places will be quite hard to upgrade due to the existing complicated urban tissue
- 5.** Possibility of miscommunication and mistrust

Conclusion

- 1. PPGIS has proven its feasibility on the long run as it saves a lot of time and money**
- 2. The future trend all over the world has been moving towards the improvement of the urban planning process through an organized web based systems.**
- 3. PPGIS as new concept need to be introduced step by step to make sure community will interact with it efficiently**

THANK YOU!

