Spatial Information and Urbanizing Futures

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Abstract : Today municipalities are searching for the new tools for increasing the public participation in different levels of urban planning. This approach of urban planning involves the community in planning process using participatory approaches instead of the long traditional top-down planning methods. These tools can be used to obtain the particular problems of urban furniture form the residents' point of view. One of the tools that is designed with this goal is public participation GIS (PPGIS) that enables citizen to record and following up their feeling and spatial knowledge regarding main problems of the city, specifically urban furniture, in the form of maps. However, despite the good intentions of PPGIS, its practical implementation in developing countries faces many problems including the lack of basic supporting infrastructure and services and unavailability of sophisticated public participatory models. In this research we develop a PPGIS using of Web 2 to collect voluntary geodataand to perform spatial analysis based on Spatial OnLine Analytical Processing (SOLAP) and Spatial Data Mining (SDM). These tools provide urban planners with proper informationregarding the type, spatial distribution and the clusters of reported problems. This system is implemented in a case study area in Tehran, Iran and the challenges to make it applicable and its potential for real urban planning have been evaluated. It helps decision makers to better understand, plan and allocate scarce resources for providing most requested urban furniture.

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