Putting Geospatial Assessment Tools to Use Online: How Cities Prioritize Livability and Health Outcomes Through the Lens of Urban Forestry

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Abstract

Geospatial mapping and analysis of the urban forest including tree inventories and Urban Tree Canopy (UTC) assessments have become commonplace tools in North America. Cities and environmental nonprofits use inventories to improve management and maintenance, and use UTC to develop a citywide benchmark, monitor change, inform master plans, and prioritize planting efforts to maximize benefits where they are lacking in the community. As a natural progression with recent GIS and mobile technology innovations, inventories and UTC data have been incorporated into online mapping programs to increase access to this information and ease-of-use for non-technical users.

Through a series of short case studies, this paper highlights some of the benefits, considerations, and impacts of bringing urban forestry data and prioritization tools into online mapping applications. Evidence suggests that such tools may increase awareness of the urban forest as an asset and a resource for community development, public health goals, and scenario planning. The collaboration that is created during an inclusive process to develop and implement such tools is discussed along with the role of tree professionals and nonprofits in UTC targets, followed by recommendations for practitioners.

Keywords

Urban forestry, urban tree canopy (UTC), geographic information systems (GIS), trees, geospatial, online mapping tools, prioritization, public health, outcomes

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