

URBAN DESIGN LAB

THE EARTH INSTITUTE | COLUMBIA UNIVERSITY

For Immediate Release

NEW YORK, New York (July 11, 2017) -- The Urban Design Lab (UDL), a research unit in the Earth Institute at Columbia University, is pleased to be represented at this year's Esri User Conference, which kicked off yesterday in San Diego, California. Senior Research Assistant Harsha Devulapalli is presenting UDL's work on integrating GIS with social media for advanced, next generation cognitive mapping.

Approximately 16,000 people are gathered in San Diego to share techniques for increasing GIS data mapping capacities to new levels in order to better understand the world we live in.

The UDL team is researching city dwellers' perceptions of public space through analysis of how Twitter data convey the spatial and emotional responses that can constitute a granular layer of behavioral data for integration within extant social and infrastructural GIS formats. New York City parks are the initial case studies. Devulapalli will present research on Washington Square and Bryant Park, two diverse parks that engage differing categories of users; the former mainly students and residents, and the latter primarily office workers and tourists.

According to UDL Director Richard Plunz, "Social data analytics has the potential for real-time understanding of the occupation characteristics of public space; from basic configurations of occupation densities to detailed understanding of diverse cognitive factors related to the users. An outcome will be new predictive models that are far more robust than any of the normative techniques now in common practice."

Recently, UDL's work on cognitive mapping was recognized at Columbia University's Data Science Day as the winner of the poster competition.

The UDL is an innovative research center that addresses the need for a design-based approach to shaping the long-range future of sustainable urbanism. The UDL team engages architects, scientists, data scientists, and engineers, collaborates with academics and professionals in design, planning, architecture, historic preservation, real estate, public health, environmental science, climatology, engineering, ecology, education, business, economics, social science, humanities, and law in tackling issues of sustainable urban development.

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