The Prospects for Artificial Intelligence in Urban Planning

Thomas W. Sanchez, Virginia Tech PG, FY2021

This is an opportune time for urban planners to (re)consider the application of AI-related methods given vast increases in data availability, increased processing speeds, and increased popularity and accessibility of AI methods.

First, the envisioned project has the potential to transform urban planning practices by identifying key activities that can lead to adopting fundamentally different approaches. Our process is bottom-up, focusing on core users and their respective needs - and goal-oriented - solving an existing gap in technology adoption in professional planning practice.

We have completed an extensive literature review, a national survey of urban planners, held discussions and interviews with Arlington County, VA planners, collaborated with the American Planning Association, and synthesized our findings.

Based on our research, we have published a journal article, three professional/white papers, given six presentations, one

podcast, and invited to speak with professional groups from India (SARG) and the New Zealand Planning Institute.

At the beginning of September, we submitted a Track 1 proposal for a 4-year project to develop AI applications in collaboration with professional urban planners.

Al's wide-ranging applications can help improve government responsiveness, compensate for limited capacity, increase resource efficiency, and reduce the burden of repetitive labor-intensive tasks.

We anticipate detecting synergies between public and private sectors based on widespread adoption of Al technologies. This points to the need for an agile, equitable, and thoughtful response to potential challenges.

Our plans are to partner with Arlington County, VA, the City of Nolanville, TX, and the City of Kempner, TX to assess their data/analytical needs from an Al perspective. Our Track 1 proposal seeks to develop Al applications based on the needs of urban planners.