

State of the Art and Practice for Equity in Urban Air Mobility

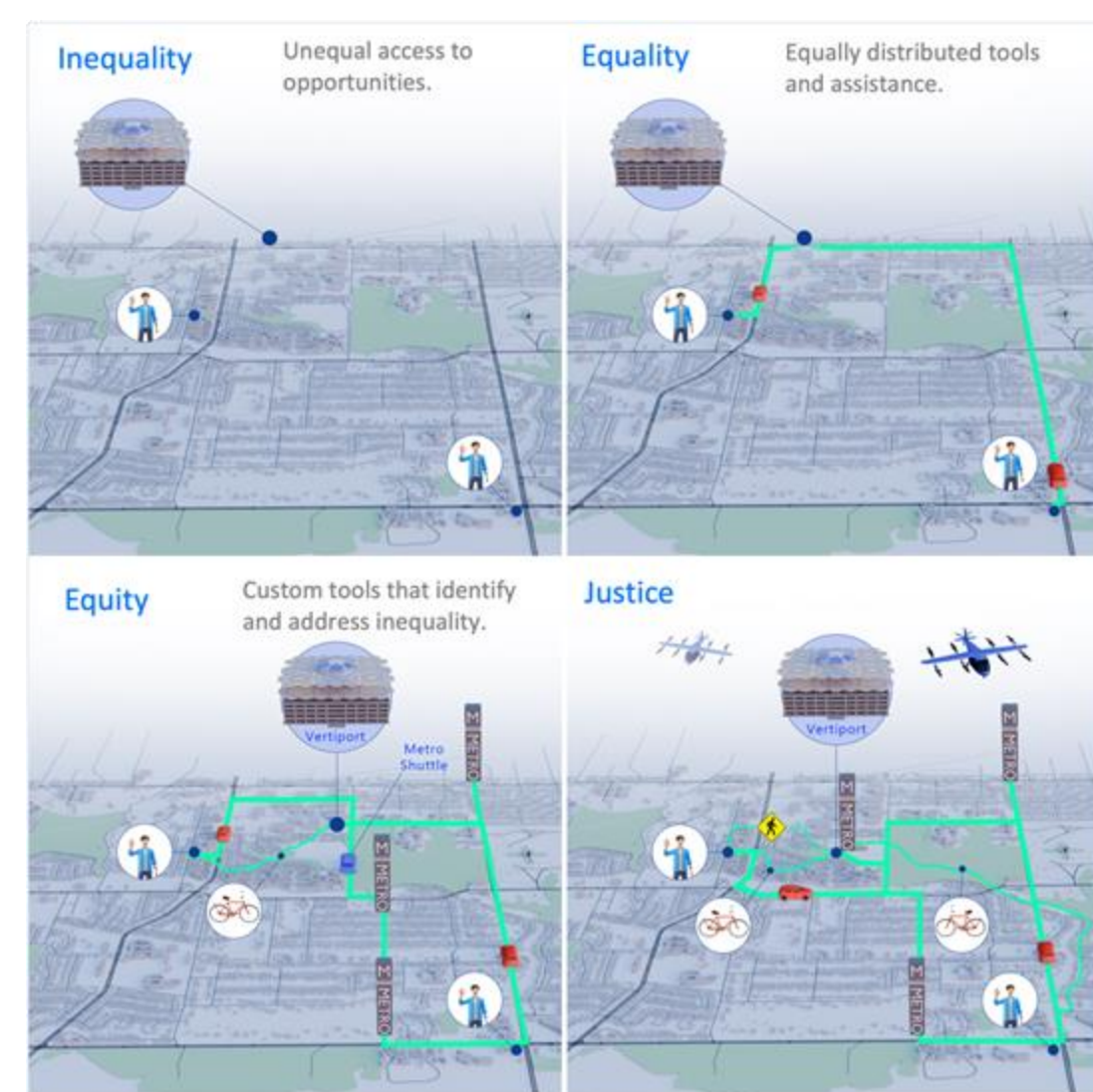
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Introduction



Residents in underrepresented communities face inequity, where the benefits of transportation systems benefits are not fairly distributed.

Without proper planning, Urban Air Mobility will worsen an already inequitable transportation system [1].

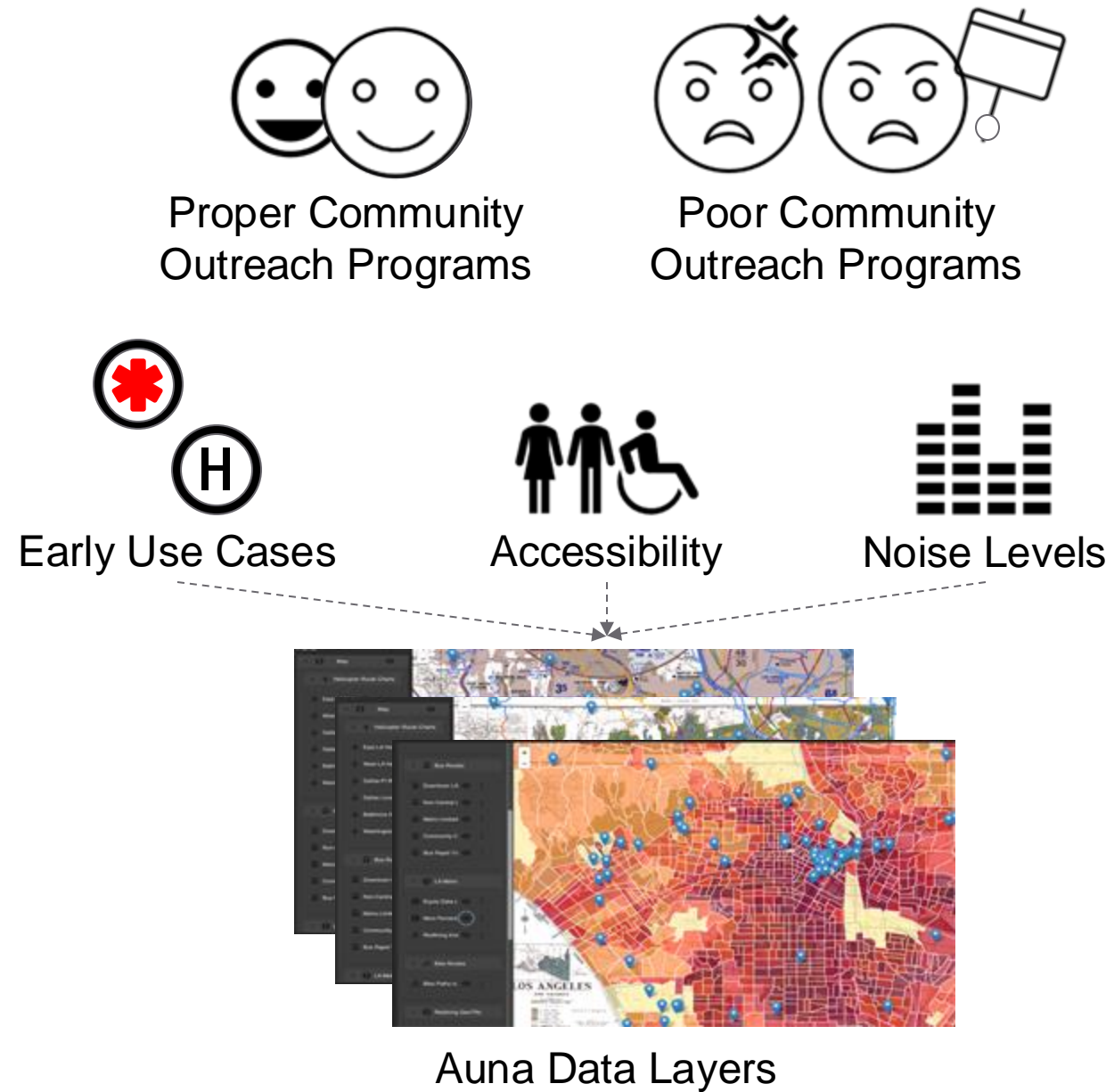
Benefits and Burdens

| Benefits | Burdens |
|----------------------------|-------------------------|
| Population Mobility | Noise |
| Population Jobs | Fare Cost |
| Economic Development | Mode Competition |
| Cleaner Transportation | Privacy |
| Market Development | Physical Accessibility |
| More Flexible Than VTOL | Safety |
| Public Service | Gentrification |
| Infrastructure Development | High energy consumption |

Recommendations

In order for the AAM industry to succeed in the market, public acceptance is necessary [4].

We also found a considerable gap when searching for tools or maps that can assist planners when choosing locations for vertiports with other relevant data.

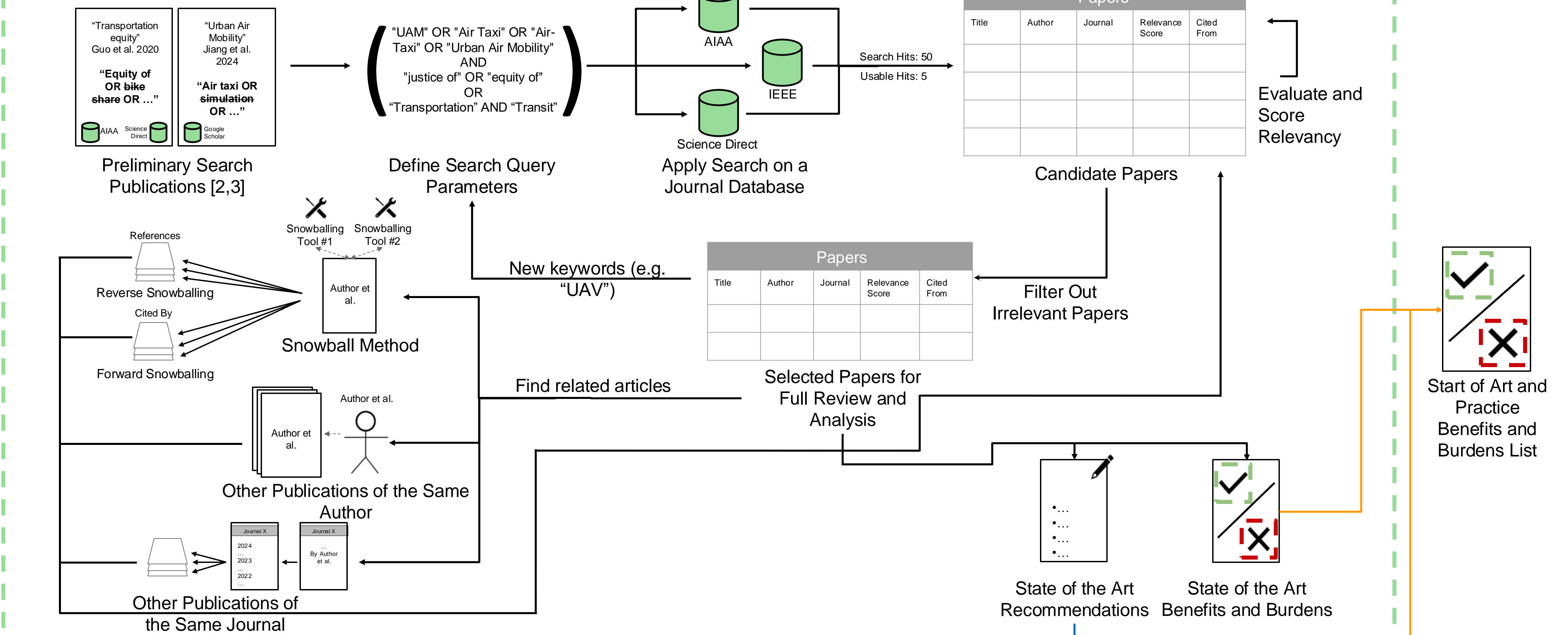


Related Work

[1] Collares. "THE FLIGHT PATH TO TRANSPORTATION EQUITY: HOW LEGISLATORS CAN ENSURE THAT URBAN AIR MOBILITY DELIVERS INCLUSIVE TRANSPORTATION SERVICES." 2023. <https://illinoislawreview.org/wp-content/uploads/2023/03/Collares.pdf>.
 [2] Guo, Yujie, Zhiwei Chen, Amy Stuart, Xiaoping Li, and Yu Zhang. 2020. "A Systematic Overview of Transportation Equity in Terms of Accessibility, Traffic Emissions, and Safety Outcomes: From Conventional to Emerging Technologies." *Transportation Research Interdisciplinary Perspectives* 4 (March): 100091. <https://doi.org/10.1016/j.trpi.2020.100091>.
 [3] Jiang, Xuan, Yuhua Tang, Junzhe Cao, Vishwanath Bulusu, Hao (Frank) Yang, Xin Peng, Yunhan Zheng, Jinhua Zhao, and Raja Sengupta. "Simulating Integration of Urban Air Mobility into Existing Transportation Systems: Survey." *American Institute of Aeronautics and Astronautics*, July 2, 2024. <https://arc.aiaa.org/doi/10.2514/6.2024-1402>.
 [4] US Government Accountability Office. "TRANSFORMING AVIATION Stakeholders Identified Issues to Address for 'Advanced Air Mobility' Report to Congressional Committees United States Government Accountability Office." 2022. <https://www.gao.gov/assets/gao/22/105929.pdf>.
 [5] Mananugh, Kevin, Madhav G. Badami, and Ahmed M. El-Genaidy. "Integrating Social Equity into Urban Transportation Planning: A Critical Evaluation of Equity Objectives and Measures in Transportation Plans in North America." *Transport Policy*, November 25, 2014. <https://www.sciencedirect.com/science/article/pii/S0967070114002145?via=ih.org>.
 [6] Beller, Michelle Oswald, and Mona Mohammed. "Exploring Transportation Equity: Development and Application of a Transportation Justice Framework." *Transportation Research Part D: Transport and Environment*, June 21, 2016. <https://www.sciencedirect.com/science/article/pii/S1361920916303406?via=ih.org>.

Method

State of the Art



State of Practice

