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Policy Brief

AI AND THE FUTURE OF SMART MOBILITY

Policy Implications

- **Technological Advances In parking solutions**

- **Revitalizing the Miami waterway and old Railroads for smart ride sharing transportation**

- **Reducing Mobility Gaps**

- **Reduce emissions through ride sharing Incentives**

- **Allocating Infrastructure funds to AI and technical support**

- **Increase In Tech Jobs**

Policy Summary

The average person spends over 4 hours per year In traffic (UN,2018) and this figure will Increase to 68% of time by 2050. What role can artificial intelligence play in improving transportation infrastructure? In talking about AI and Smart Cities it may seem as if we are discussing something that may happen in the future. The reality is, is if we want to have a Miami with strong infrastructure, less pollution, and more efficient mobility, then we have to act as though the future is now. According to Maxinai's article on Fuel efficiency improvements through AI, AI has reached new heights of involvement in transportation, with predictions that by 2023 it will reach $3.5 billion dollars(Maxin AI, AI in transportation, 2021). AI can be used to Identify and course correct traffic patterns as the systems are running at the same time.Smart traffic management systems radars have already been used to improve the optimization of traffic flow through algorithms.Building and creating smart mobility will In turn create a smart city. Following areas of Impact in city transportation through AI:

Parking and traffic patterns

According to Parking Network (2014), looking for parking is a major cause of heavy traffic in major cities. Due to increasingly limited parking spaces because of an increasingly growing population, cars slow down to look for parking and as a result traffic flow slows through what's known as a "phantom traffic jams" (Metcalf,Equal Spacing Section,2018). What if you knew exactly where to park in downtown Miami before you left your house by using integrated cloud systems that connect people, vehicles and Infrastructure? Research has shown in a study by a journal in Handawi, that AI can assist with key technologies to create "Parking space detection and path planning(Xu,et al, para 2,2021). Using 5G, the Cloud, and embedded sensors in parking spaces(Provoost,J., 2020) a person could reserve a spot using an app on their phone that talks to their car helping them travel directly to a smart sensor In the reserved spot, with Smart technology updating these reservations and traffic patterns in real time all over the city for other drivers.

Autonomous Ride Sharing

What if we took this AI a little further combining ride sharing in autonomous vehicles? One Big Engine is better than 100 small engines(youtube video).Biz Journal reports that Jacksonville, Florida's Elite Parking Services of America is already using EV (electric vehicle) autonomous mass transit through a vehicle called Olli (Robinson,2018). Less cars on the rode means less traffic on the rode, an added bonus is that Olli can drop riders off curbside leaving more spaces open for individual drivers. Over time we could decrease the mobility gap in areas, by combining EV and ride sharing (Alexander-Kearns, pg,4,2018).

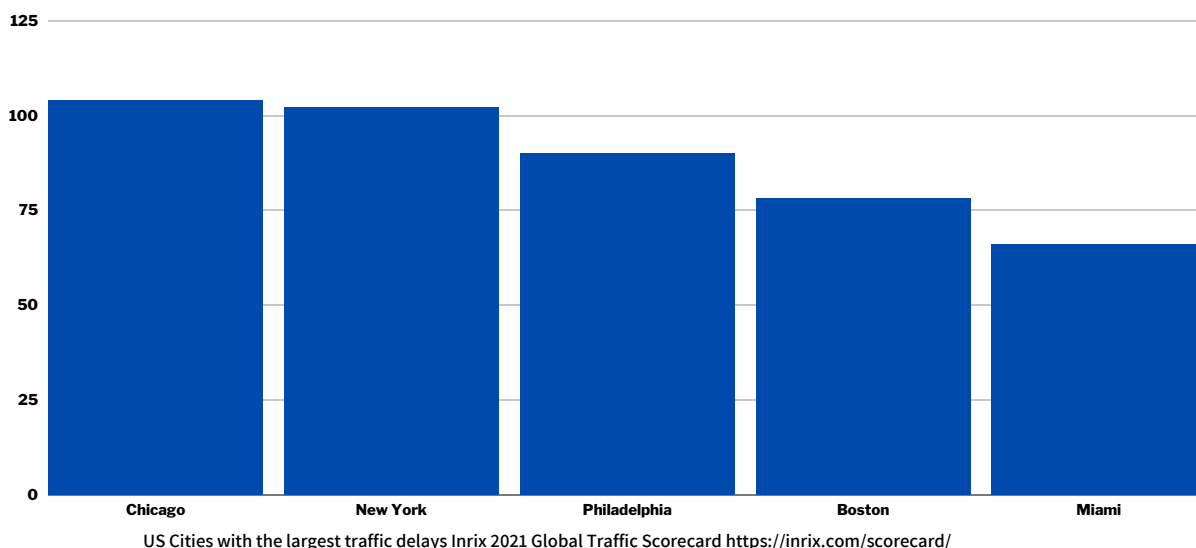## REDUCING OUR CARBON FOOTPRINT

Tackling the parking issue, with EV and ride sharing can create long term benefits to climate change. Digi's article on Smart Traffic Management reports "Traffic slow-downs can cause debilitating congestion and add to urban air pollution" (Mazur, 2020), and Casey Jones, chairman of the (IPI), is quoted as saying, "If we can cut the time it takes drivers to find a parking spot by even a fraction, the difference in our carbon footprint is meaningful"(Parking Network,2014.) AI can contribute directly to future proofing Miami just by decreasing traffic. We will see a decline In fuel usage with the use of EV's(Alexander-Kearns, 2018) and less cars on the rode searching for parking with Smart Mobility apps.

57%
world population lives In urban Cities

78%
projected to live In urban cities 2050
(UN,2018)

US Cities with the largest traffic delays Inrix 2021 Global Traffic Scorecard https://inrix.com/scorecard/

POLICY RECOMMENDATIONS

- Leverage the data that the city has already collected with Its current smart city traffic Initiatives in research to support new policy initiatives.

- Leverage the water taxi Industry for the Miami Beach, Bayside area to create a waterway and railroad revitalization policy decreasing the amount of cars on the rode.

- Focus on Increasing Smart Mobility awareness and education training to vulnerable populations (i.e., seniors, lower socio-economic areas)

- Safety of Information

- Build in a recovery strategy and budget for failed sensors and systems.

- Cast Big picture Campaign to encourage ride sharing, smart technologies and how Smart mobility will help future proof Miami for climate change.

- Lobby for funds from Florida's new Infrastructure Budget specifically for AI.

- Build bridges with Jacksonville to gather more Information about autonomous ride sharing data

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