

Memorandum

To: U.S. Department of State, EAP/MLA, ASEAN/EAS Unit
From: Charles Strecker, Student, Wilbur Wright College
Subject: Smart Cities—traffic management & Privacy
Date: May 1st, 2020

While the possibilities of smart cities are great, so too are the tyrannies they can perpetuate. The long-term viability of smart cities thus depends upon the trust and understanding of its inhabitants and their capacity to believe that the great weapon that the smart city may become will not be turned against them. The rest of this memo will mainly focus on the possibilities of traffic management, and therefore environmental and economic sustainability, while maintaining the long-term goodwill of a local population.

First let us establish why the advanced traffic management as provided by a smart city is so important. The better traffic management is the faster goods and people will be able to be moved across the city. This not only saves gas and improves the efficiency and profit margin of businesses but also bolsters the tourism industry and overall appeal of the city by making it more generally pleasing to navigate. The most expedient way I have come across to achieve these results while still maintaining civil trust is to effectively outsource information gathering. Now of course forcing a population to aggregate information for you will only breed resentment, therefore the system must be voluntary. This however brings with it a host of problems, if too few people feed information into an algorithm, the algorithm no matter how complex will be unable to form a cohesive picture and therefore fail to achieve useful results.

So how does one ensure that a considerable portion of one's population feed data into the system while still maintaining the voluntary nature of said system? You make participating desirable; you make it a service. Pathfinding applications have become extremely popular in the last decade, with some drivers using them daily to find the most expeditious route to their destinations. Pathfinding apps work by analyzing traffic flow through the movement of users and utilizing that to find the best balance of direct movement and minimal congestion. This information, coincidentally, is exactly the kind of information a smart city would need to plan new roads or public transit.

But the benefits of a municipal pathfinding service do not end there. Not only does this method effectively negate the need for installing new and expensive surveillance infrastructure by offloading the burden onto citizens cellphones, it also allows the city to influence and smooth the flow of traffic on a micro scale, to compliment the macro scale alterations that road and transit reform offer. Acting as an effective force multiplier in the cities efforts to manage its myriad citizens.

But while the existence of pathfinding services does great service to smart city initiatives by serving as an effective proof of concept and testing relevant technology it also creates an unignorable obstacle for those selfsame initiatives, competition. So how does a municipal pathfinding service get a leg up on its private sector counterparts? The answer is fourfold.

- First, being run by the city gives the pathfinding service unparalleled access to the inner workings of said city's traffic light system allowing for the service to guide a user towards green lights.
- Second as all construction on city streets must first go through city bureaucracy the service will be able to get ahead of most outside sources of traffic congestion and preemptively reroute users away from them.
- Third the service could easily accept notifications for needed street repair, thus streamlining the reporting process and allowing citizens a means to improve their community.
- Finally, the application could serve as the means to poll citizens on various relative subjects, hosting votes such as "if this bus route were to open would you use it?" thus accumulating more data and giving constituents a means to make their voices heard.

While the pitfalls between us and the perfect city are many traffic, certainly, should not be one of them.