A smart city is a city that is built upon a layer of technology aimed at bettering human lives. This technology is typically a bunch of sensors that will keep collecting all sorts of data, like traffic movements, nuances about the weather, and so on, aimed to better provide solutions for day-to-day activities, problems, and forecasts. Sidewalk Labs planned to infuse “smart city” tech from the ground up in Toronto’s Portlands neighborhood. Sidewalk’s plan of implementation of the smart city was split into two phases: the physical layer and the digital layer. The physical layer can be further broken into four sections: buildings, mobility, the public realm, and infrastructure. They wanted to create spaces that were flexible and could be used for multiple purposes. The idea was to utilize the space and mutate it as per the user’s needs. “The flexible loft concept is described as being one in which all users are provided with a base design that can be readily altered.” [1] For instance, a parking garage space can be used for other purposes when automobile dependence is less. This allows effective utilization of space for the government as one space can serve to be useful for other purposes. Sidewalks emphasized mobility. Their plan included increasing pedestrian mobility and cyclist walkways and new automated driverless transportation. This helps in increasing traffic throughput and reducing congestion. It also increases the safety and availability of transport. A ‘managed parking system’ was also present in their redevelopment plan. The digital layer focuses on accumulating real-time data and putting it into use in the “what-ifs” scenario and helps in the optimization of resources.

These instances show that a technology-driven and enhanced transport system would be beneficial for both the citizens and the government. No extra provisions would be required. Mitigation of congestion, reduced emissions, and better management of on-road transport would be an add-on besides being cost-effective. As per the studies conducted by Sidewalk Labs, they say “Our calculations suggest that applying urban innovations at scale can reduce the cost of living by 14 percent compared with neighboring metro areas.”[2]

Costs are differently measure for everyone. For citizens, the cost of living in a smart city is the lack of privacy, given the amount of data being collected by the government to implement all the smart functions, not to mention possibly paying higher taxes. The government incurs the direct financial costs of setting up the smart city. Costs are a big upfront investment for something of this scale, but what must be considered is the benefits. When it comes to cost benefits, smart cities benefit all three: citizens, government, and the organization. Investing in citizen-centric economies gives governments the potential to increase budgets for other crucial work or underfunded projects such as healthcare or community-related projects. Lily Maxwell writes in her article “ While accessing smart city funding can still be difficult, the figures demonstrate that investing in this area seriously pays off in the long run.” [3] She further explains that public transport costs vary from city to city. However, those with smart city implementation tend to have lower public transportation fares making it a cheaper and more available option. [4]

Technology-driven systems can help the government and citizens mutually too. Digitalization makes government procedures easy and helps in better monitoring. It helps citizens in administrative areas where without digitalization they would have to pay for agents or middlemen doing redundant work.

When it comes to citizens, smart cities help in improving quality of life, saving time, and saving money. Urban mobility presents a good example when it comes to cost-saving. Urban mobility can be made greener, more time-efficient, and economic with the help of IoT and sensors. Sensors can detect real-time data, and this allows to build a more cohesive transport system. This helps the transport operators to cut manpower costs. [5] Smart city innovation can also help cut costs in the areas of urban security, administrative procedures, city maintenance, etc.

Sidewalk would benefit in the monetary as well as data collection areas. The real-time data collected would help them better with the upcoming projects. In today’s world, data is power. Having so much data about an entire city could give Sidewalk Labs enough power to essentially become a monopoly in terms of utility production owing to their knowledge of what the people need. As per the paper by Peel and Tretter, “Sidewalk’s demand that a fraction of the property taxes and development fees be retained exclusively for the Waterfront area.” [6]

The primary concern despite all these enhancements is the ownership of data. Data privacy seems to be compromised. The second question that arises is who will be using this data. Sidewalk Labs continues to write “And building a pilot, or a product or even a district isn't the end goal. It's making the commute for the tired waiter in Detroit shorter. It's making rent for the Bay Area couple cheaper. It's making health care for the family in Atlanta less stressful. It's working with cities to help improve lives today while inspiring them to see what's possible tomorrow.” [7]

References:

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