Smart Cities, What Does the Future Hold?

Smart city technologies are rapidly changing the way cities work, and the availability of real-time data from IoT devices and strategically placed GPS-enabled sensors will increasingly enrich every aspect of urban life. As more and more people get smartphones, and technology continues to upgrade, we will see greater capabilities in the way cities generate data to be used for future IoT applications. And as smart city technologies scale up in use and accessibility, they will lead to greater quality of life improvements for residents, including reduced congestion, better emergency response, more space to build, deflated housing costs, better housing, and enhanced open space. In essence, as the technology grows, we will be living in better cities.

Smart city technology is promoted as a way to increase efficiency – but whose efficiency are we talking about? Well, first you must consider what purpose a city serves. In a nutshell, the goal is to attract business, residents, and workers to support the economy, i.e., spend the almighty dollar within its borders. The cycle of attracting and retaining citizens and businesses further encourages the infrastructure and improvements needed to support more business and residents. Since cities run on revenue generated by property and sales taxes, municipalities need to make them attractive places to live and work, if they are to be sustainable or experience growth.

There is much speculation about what smart technology can mean for the future of our cities. We will undoubtedly see these technologies used to nurture smart districts to attract a greater number of professionals[i]. Cities are amassing vast amounts of data and making them available to companies looking to develop software and apps that make the quality of life better[ii].

More than enticing technology giants such as Google and Amazon to set up shop, the availability of large data sets creates an attractive ecosystem for startups of all industries and niches with technology-driven business models such as telemedicine kiosks, expanded e-hailing services, and instant air quality monitoring, to name just a few examples. Smart city initiatives also provide new opportunities for public-private partnerships to innovate data-driven solutions for improving mobility, safety, health, housing, connectivity, and many other types of services aimed at increasing livability for residents of all income levels.

An environment attractive to business means the ability to draw more people and different skill sets into the workforce. Most everyone can agree that more opportunity and more workforce are a good problem. However, more workers also mean more demand for housing options that are affordable for all classes of workers. Currently, most cities experience a clustering of professionals in areas close to job centers or where transportation to and from work is convenient. Merely engaging in smart technology to foster business growth without thinking about the demand for housing is setting a trap for failure.

One solution to increase housing is to make a more attractive environment for developers by digitizing the processes of property acquisition, land use studies, and permitting. Not only can greater efficiency in these processes mean faster transactions, but it can also help identify more viable land opportunities and lead to a reduction in development costs. Smart technology applied in this way will help cities better utilize land, which could result in more affordable housing options.

Another way to meet the increasing demand for housing, as well other needs and services, is to place the focus of smart technologies on people rather than on gains due to efficiencies of the technologies themselves. Whether through public policy or private company norms, putting people at the center will encourage citizen engagement and help secure public buy-in, which is essential for the success of many smart city technologies. For example, while real estate developers that offer real-time traffic, transit, street parking, and other commuter information are leveraging intelligent technologies to create added value for their properties, by ensuring that the applications are both useful and user friendly, they're also encouraging adoption of more efficient habits that benefit everyone by helping to decrease pollution and relieve congestion on the roads.[iii]

The number-one driver of the adoption of smart city technology is to make cities attractive places for businesses and residents. However, the real challenge is to ensure that smart city technology is used to promote more efficient living in a transparent public environment - not to jazz up the current urban problems with an overlay of technology. As cities scale up in use of smart technology, it will become increasingly important to work in tandem with area businesses and individuals so the solutions rise to the challenge that increased demand can bring.

[i] SMART CITIES: DIGITAL SOLUTIONS FOR A MORE LIVABLE FUTURE
https://www.mckinsey.com/~/media/mckinsey/industries/capital%20projects%20and%20infrastructure/our%20insights/smart%20cities%20digital%20solutions%20for%20a%20more%20livable%20future/mgi-smart-cities-full-report.ashx

[ii] Smart Cities Are Smart Places for Entrepreneurs
https://www.forbes.com/sites/mikemontgomery/2018/07/24/smart-cities-are-smart-places-for-entrepreneurs/#6f7182785321

[iii] Can smart city tech shape America's real estate?
https://www.jllrealviews.com/places/americas/united-states/can-smart-city-tech-shape-americas-real-estate/