



Building a Smart and Equitable City

Jeff S. Merritt, Director of Innovation, City of New York

Smart city projects in New York are first and foremost about the people—improving quality of life for the millions of residents, workers and visitors who come here to live, work, and play. Sure, the technology is great, and it is key to our mission, but it is not the end goal in itself. Our smart city journey begins by understanding the unique needs and pain points that New Yorkers face and acknowledging that technology is not always the answer; in fact, sometimes technology can be at the root of these problems. Though New York is unique in many aspects, we believe these lessons can be applied to smart city projects happening anywhere around the globe.

A Tale of Two Cities

There are almost 400,000 millionaires living in New York City, more than anywhere else in the world. And in midtown Manhattan, where many of these millionaires live and congregate, we can see the incredible potential of smart cities projects. Take Hudson Yards for example. This newest neighborhood in Manhattan is currently being constructed with state-of-the-art technological solutions: continuous access via wired and wireless broadband for any device, organic waste systems, a stormwater tank, and sensors that have the ability to monitor and react to traffic patterns, air quality, power demands, temperature, and pedestrian flow. A playground for the rich and famous, it shows that we can build the city of the future today.

Meanwhile, New York also includes neighborhoods like Brownsville, Brooklyn. This community has a higher concentration of public housing than anywhere else in North America. The life expectancy for people who were born and grew up in Brownsville is 11 years less than those who grew up in lower Manhattan. Consumer technologies such as OpenTable (an app for booking reservations) that were developed to make our lives easier have limited value in Brownsville because the neighborhood does not have sit-down restaurants with waiter service. In addition, the introduction of new technologies (such as installing free public Wi-Fi) can trigger fear and doubt in residents' minds. Are you capturing information about me? What is this really for?

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This tale of two cities demonstrates a few important points that all smart city officials should consider. For one, when a new technology is purchased and deployed by government, the private sector, or consumers, we are either exacerbating inequities or helping narrow them. There’s no other way around it; it is one or the other.

Secondly, we must realize that, if things are left on their own, these projects will naturally migrate to wealthy, better-resourced areas where communities are actively embracing and seeking out new technologies. However, the role of government is to serve the people. To truly leverage the transformative power of technology, we (government) must focus our attention on the communities where needs—and resistance—are the greatest.

Building Trust in Brownsville

Launching smart city projects in communities like Brownsville is not easy, but we have been using a method that shows great promise. It involves getting the community involved and addressing issues head-on.

Before you can do that, a certain amount of planning must be done. We use a ‘smart city stack’ method that has several layers. The first three are the strategy layer (creating a citywide plan that establishes the long-term goals that define our vision for the smart city), the tactical layer (where IoT guidelines and policies help agencies understand how to responsibly deploy solutions), and the vendor engagement layer (where the potential products to use in our projects are sourced).

After these stages, you transition from planning into action, where technology gets tested and ideas are validated. At this stage, particularly in communities like Brownsville where there is a lack of trust in technology, community engagement is critical. We consider this to be both an investment in social infrastructure and a key part of the testing and validation process for new technologies. In designated “Neighborhood Innovation Labs” like Brownsville, this engagement process includes forming a local advisory board, empowering them with new capacities, and working side-by-side with them to create strategic priorities that will drive new technology deployments.

The community technology advisory board enables us to streamline the community engagement process while also ensuring that we reach all key stakeholder groups. In Brownsville, we partnered with key organizations and institutions in the area to curate a board that consisted of three types of people:

1. Community organizers who understand the urgent problems in the community and are willing to fight to solve them.
2. Place-makers who organize or manage public spaces and understand the role of public space and quality of life in these neighborhoods.
3. Entrepreneurs who are committed to growing the local economy and helping close the digital divide.

As we engaged neighborhood problem solvers in a series of discussions about the potential of new technologies to help improve urban life, it was immediately clear that the residents of Brownsville have a different experience with technology, largely based on encounters with law enforcement.



Brownsville is one of the most surveilled neighborhoods in New York City. This is both a result of persistent crime and the fact that Brownsville has some of the greatest concentrations of young people on probation or in detention centers. As a result, stories regarding innocent friends or family members who were targeted because of technology abound. Whether individual stories are true or not is not relevant here; the point is that these perceptions of technology (and its potential to be used illegally or unethically) mean that Brownsville residents are less likely to embrace smart city technologies that could actually benefit them.

Recognizing this foundational dilemma, our approach was to address the issue head-on, carefully, and repeatedly—not just in one meeting or behind closed doors—but throughout the curriculum. We brought in representatives from the New York Civil Liberties Union and invited leading security researchers to discuss technology from the standpoint of civil liberties/rights and the ethics of data collection. This actually inspired the group to draft a statement of principles that will guide the considerations for technology partnerships that were being proposed. The goal of this document would be to make sure that when technology is chosen, it adheres to specific ethical principles.

We believe that this investment in social infrastructure will not only accelerate the implementation of smart city projects in communities like Brownsville but also strengthen the way that we as a city evaluate and approach the deployment of new technologies. By addressing residents' fears and concerns and building trust by integrating these concerns into our review of new technologies, we believe that Brownsville can shift from a community that is pushing back against technology and falling behind to one that is embracing, adopting, and even demanding technology. Once again, technology can either exacerbate inequalities or narrow them. As public servants for the city of New York, we seek the latter.

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