Smarter cities are safer cities

By Gavin Holme and Rudraksh Bhawalkar   27 Jan 2017

As technology evolves at an exponential pace, and increasing numbers of individuals live in urban areas, the concept of smart cities is gaining momentum.

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Smart cities rely on massive volumes of data being gathered by sensor-based technology and fed into intelligent networks. If developed cohesively, these networks can integrate with one another, sharing data and forming a 'super-network' that pulls in every aspect of a smart city – from energy management and smart grids, to public transport, traffic management, healthcare, information services, ubiquitous connectivity, intelligent buildings, and refuse and sanitation, to name just a few aspects.

But another, lesser-known benefit of smart cities is the ability to reduce crime. This is achieved in several ways:

Surveillance

Though this sparks lively debates around where the lines of personal privacy should be drawn, there's no doubt that surveillance footage from networks of IP-connected cameras are very useful to authorities when tracking down suspects.

With metro police authorities operating in a fully connected way, they become more efficient and can 'cover more ground' in the fight against crime. For instance, incident reports can be completed at the scene of a crime, via simple forms on a mobile app. This can be combined with surveillance and historical data, served from cloud platforms and interpreted by sophisticated analytics tools, empowering police with sharper insights when solving crimes.

Rapid response

Using camera and sensor technology, emergency medical and police response teams can receive automatic alerts to road accidents and other incidents. When just a few seconds can sometimes mark the difference between life and death, having ambulances dispatched more quickly has a huge impact. Another example is having smart cameras installed at automated teller machines (ATMs). These smart cameras can incorporate smart analytics and be programmed to detect motion as well as behaviour that is deemed either suspicious or alarming. A person with a weapon could be identified with smart analytics and alert sent in real-time through to the control room, initiating a fast response.

Improved lighting

Criminals often take advantage of poorly lit environments. But imagine if, for instance, a smart city system included connectivity to street lights, so that when a bulb breaks, the relevant department gets an immediate alert and repair crews can attend to the problem. This same principle is applied to any public lighting, cameras, or other sensors.

Healthy environments

In the emerging world, sanitation in urban and peri-urban areas is a huge problem. With more efficient, technology-enabled refuse removal and disposal services, citizens benefit from a cleaner and more hygienic living environment - helping to reduce the spread of disease.

Disaster management

With enhanced communication capabilities, authorities can alert citizens to impending disasters or issues, such as flooding, hailstorms or tornadoes. Emergency relief can be more effectively distributed to affected areas. With stories of drownings in flash floods not uncommon in some South African cities during rainy seasons, this could have life-saving effects.

Two-way citizen engagement

Perhaps the most important safety initiative for smart city planners is to build the tools in which citizens can report crimes anonymously, with geolocation and camera evidence that mobile apps enable. This extends the authorities' 'eyes and ears' and helps to create a culture where people hold each other accountable for upholding the law and ensuring the safety of others.

While every city is different, South African cities across the country could certainly benefit from improved citizen safety. In other global case studies, introducing new technology-driven solutions have been slashed crime levels by up to 30% in some cities. As municipalities and political parties look for ways to garner greater public support, smart cities may provide them with the results they're looking for. Every individual, in fact, would benefit from the enhanced public safety made possible by new technology.

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