Data for Liveable Cities: Issues, Challenges and Emerging Pathways for Indian Cities

Center for Study of Science, Technology and Policy
Apr 10, 2019 · 3 min read

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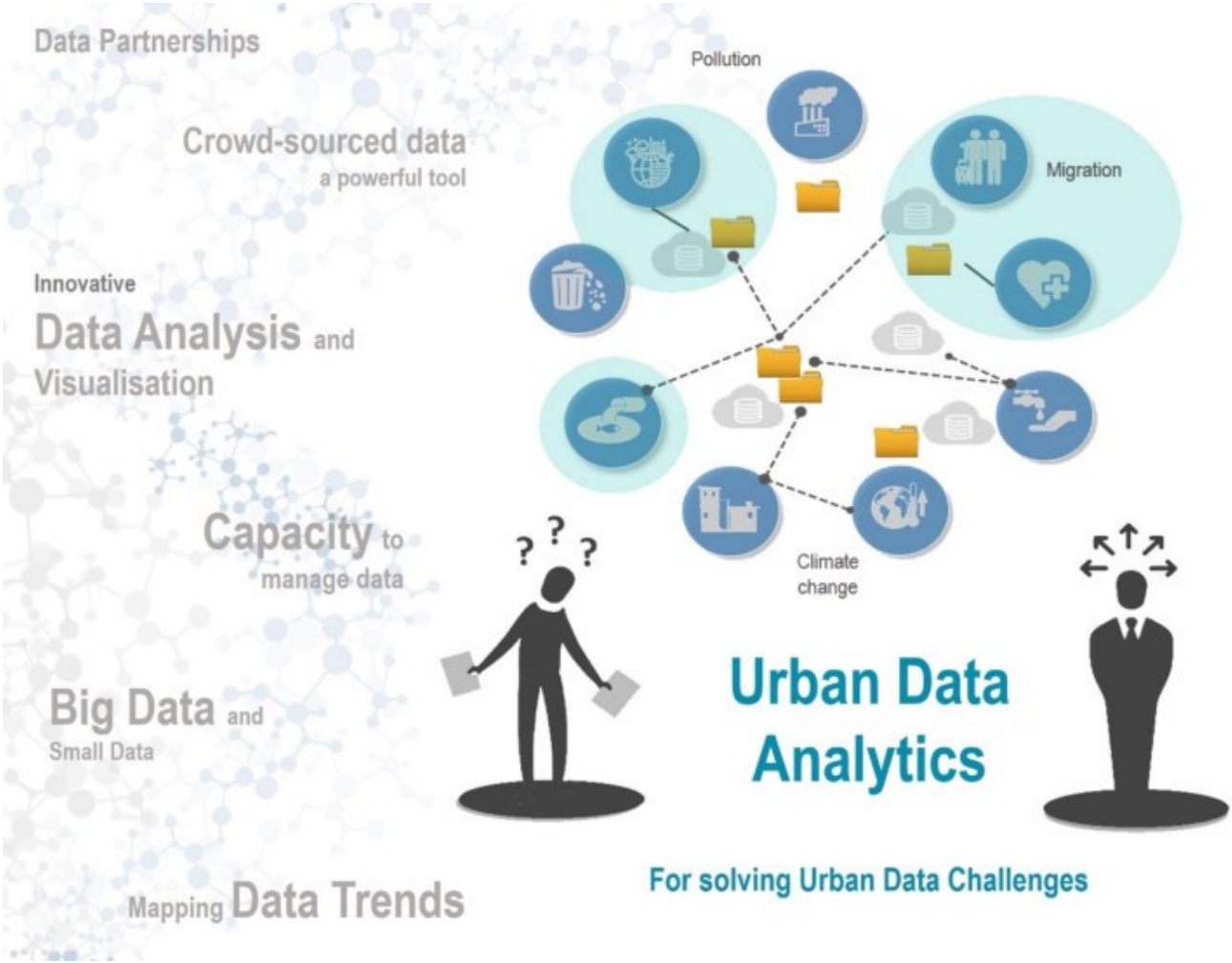
The innovation in data science and digital technology is shaping the way urban living is perceived by citizens and city managers across the world. As urbanist and author Anthony Townsend puts it, “This digital upgrade to our built legacy is giving rise to a new kind of city — a ‘smart city’”.

The definition of smart city and the scale of technology application vary across the world; however, one common element that constitutes the backbone of New Age city

planning and management is data. Marching with this global trend, Indian cities are also preparing for a data-driven future to deal with urban liveability and sustainability challenges in a more efficient and prudent manner.

India is home to about 10% of the total urban population of the world, with about 38 million people living in its urban areas. According to the United Nations, India is likely to be among the top three contributors to the growth in the world's urban population, between 2018 and 2050. Seven Indian cities are among the 50 largest urban agglomerations of the world.



At the same time, India's urbanisation story is also about some 7,000-plus small, medium and census towns spread across a largely rural canvas. While the recent Smart Cities Mission covers about 100 cities in India, the remaining cities and towns are also undergoing a data revolution in many different ways. The Government of India has initiated a number of programmes, such as the National Urban Information System, to build robust spatial data systems for cities, which are keys to effective urban planning. Karnataka has its own novel initiatives in urban data analyses such as the Karnataka Municipal Data Society portal.

Innovations in collection, analyses and visualisation of data are opening new frontiers in the way we understand cities. This includes data from both government and non-government sources, such as the vast amount of geospatial data collected by cab aggregators, mobile service providers, social media, etc. Crowdsourced data is emerging as a powerful tool for not only researchers and city officials in city planning and disaster response but also for citizens in enhancing their claim-making capabilities. Recognising this, the global discourse on data, including the Sustainable Development Goals, emphasises data partnerships among the government, private sector, and civil society.

There exist challenges, too. According to an estimate by CISCO, a smart city of 1 million will generate about 180 million gigabytes of data every single day. The biggest challenge is preparedness of city managers in using this data. Without adequate capacity, the urban data revolution is likely to create a lopsided picture with large supply of big-data used meagrely by cities. Other challenges include the question of data ownership, privacy and rightful use. The question of who, what, how, and where is a key in creating data-driven cities while avoiding creation of digitally divided urban societies. A carefully drafted data policy for cities can address these issues.

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