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An evolutionary note on smart city development in China

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Motivation

- ❑ The continuous urban population growth posed significant challenges to limited resources of cities. The traditional governance model cannot solve the problems caused by the additional demands for transportation, medical care, education, environment, and management.
- ❑ Recently, a new urban operational and governance model—smart city, has been adopted by major cities throughout the world, by utilizing information and communication technologies to improve city services, operations, and management.
- ❑ We discuss the essence of smart cities, investigate three driving forces of smart city development in China, summarize the key features of smart cities in China and other countries, and raise four big challenges that deserve careful thoughts on building future smart cities.

Key findings

Three big driving forces behind smart city development in China

- ❑ Urbanization: (1) urbanization and industrialization are the two engines of modernization and economic growth; (2) China needs to shift from its heavy reliance on exports to domestic demands; (3) urbanization can catalyze regional development.
- ❑ Policies: the construction of smart cities in China can be roughly divided into four phases.



Key findings

Three big driving forces behind smart city development in China

- ❑ Technologies: information and communication technologies provide the essential conditions for the development of smart cities.

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Concluding remarks

- ❑ The first challenge in the construction of smart cities is to coordinate the harmonious coexistence of new and old facilities and functional units.
- ❑ The smart city builders must provide alternative services that are accessible to everyone on an equal basis.
- ❑ The technology-centric and top-down features of smart cities in China may result in the sustainability issue in the long run.
- ❑ The fourth challenge is to improve the legal system to ensure that new technologies or services are not used for illegal purposes before they are properly regulated.



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