Special Section:
Big Data in Urban Planning

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Implementing Tracking Technologies in Urban Planning

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This article presents the dramatic growth in the use of advanced tracking technologies such as Global Positioning Systems (GPS) and advanced mobile phones—known as smartphones—for academic research in the last decade, with an emphasis on geography and urban planning. Tracking technologies supply researchers and planners with continuous high resolution data in time (up to seconds) and space (up to few meters); this opens up new possibilities for basic research and applicative implementations that can assist academics, urban planners, transportation planners and other stakeholders.

The fast penetration of smartphones in recent years will have a significant impact on the way we will implement tracking technologies in the future. We discuss how these devices can be employed in research, tracking individuals in time and space and functioning as location-aware survey tools in real time, among other things. We also engage in a debate over the advantages, disadvantages, and limitations of smartphones in this context, and highlight new research trends that are beginning to appear following the introduction of smartphones.

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