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Breathing cities - mobile positioning data for smart statistics and cities

Abstract

Mobile Positioning Data (MPD) has opened a new quality level for sustainable urban mobility planning. Previously the information was very limited across all dimensions – no combination of methodologies could provide detailed temporal and spatial information across all travel modes, over large population samples and for an unlimited time period. MPD analytics has widened all these dimensions. Temporal resolution ranges from separate hours to continuous monitoring, including historical data. Spatial behaviour details include detection of meaningful locations, activity space, movement frequency and regularity, connections between locations, all travel modes included. Population sample is ranging from one mobile operator to the whole population. Detailed mobility behaviour information creates the possibility for efficient mobility planning for a Smart City: efficient demand-based public transport, high-quality public space for walking/cycling in areas where local trips dominate, MaaS. Such dynamic representation of the city, when observed and visualized using the combination of MPD and other data sources, has a striking resemblance to a living, breathing and consuming organisms.