报告 11

大数据时代的城市管理 – 以空气污染管理为例
Urban Management in the Big Data Era – The Case of Air Pollution Management

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报告摘要 Abstract

随着信息和通信技术的发展，我们可从不同来源收集各种类型和时空尺度的数据。因此，城市问题管理可以利用到开放和大数据。本讲座的重点是利用大数据并透过一个坚实的科学基础和强大的软件平台来解决复杂的城市问题。讲座将采用有复杂的城市形态的高密度城市中空气污染的分析和管理作为我们的案例研究，以实证我们的论点。我们的讨论涉及到使用测量站、移动传感器、遥感和社交媒体的数据进行城市空气污染的监测、分析和管理。我们将提出基本概念和方法并用以解决实际问题。讲座会以利用大数据进行智能城市管治的前景为总结。

With the advance of ICT development, data of various types and spatio-temporal scales can be amassed from different sources. Management of urban problems can thus capitalize on the ubiquity of open and big data. This talk focuses on the use of big data to tackle complex urban issues with a solid scientific foundation and powerful software platform. It will employ the analysis and management of air pollution in high density cities with complicated urban morphology as a case study for the substantiation of our arguments. Our discussion involves the use of data coming from measurement stations, mobile sensors, remote sensing and social media for city air pollution monitoring, analysis and management. Basic concepts and methods will be given and applied to the solution of real-life problems. The talk will be concluded with an outlook for smart-city governance and management with big data.