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ALIVE:智慧城市多源感知数据价值体系探索

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摘 要:

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ALIVE: Smart City Multi-source Sensing Data Value System Exploration

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Abstract: Urban multi-source sensing data contains great value. It is an important data asset for smart city construction and a key factor in shap ing a new pattern of urban development in the future. However, the current multi-source sensing data of smart cities is generally characterized by "large data volume and weak value discoverly is difficult to meet the demand of urban governance for high-quality and in-depth knowledge services. In order to solve this problem, based on the ten 'yexperience of Sino-Singapore Tianjin ecology city smart city data aggregation platform, we proposed a smart city data value system framework theoretically from five aspects of data aggregation, link, insight, vitality and ex tension, aiming to provide ideas for the high-value application of multi-source sensing data of subsequent smart city construction.

Key word s: smart city, multi-source sensing data, value system, data aggregation, data link, data insight, data vitality, data extension

城市数据是记录城市自然环境、社会经济、人类活动等多源要素的重要载体,承载了城市对象从衍生到消亡的全生命周期变化,蕴含着巨大价值。随着感知技术和计算环境的成熟,基础地理信息数据、公共专题数据、实时监测数据等多源感知大数据在城市里迅速累积,其中基础地理信息数据包括影像数据、矢量数据、地名数据、高程数据、三维数据、街景数据和国情普查等;公共专题数据主要包括人口、法人、民生兴趣点以及宏观经济数据;实时监测数据包括生态环境、自然资源、交通运输、城市管理、综合执法等领域的群智实时监测数据信息。

在城市数据信息总量急剧增长、数据类型多样化的背景下,建立智慧城市数据平台、实现多源感知数据的高效管理应用得到了各方的高度重视。2014年国家八部委颁布的《关于促进智慧城市健康发展的指导意见》²³明确提出"加快推进信息资源共享与更新,以城市统一的地理空间框架和人口、法人等信息资源

为基础,叠加各部门、各行业相关业务信息,加快促 进跨部门协同应用"。2015年国务院颁布的《促进大 数据发展行动纲要》再次提出"加强顶层设计和统筹 协调,大力推动政府信息系统和公共数据互联开放共 享,加快政府信息平台整合,消除信息孤岛,推进数 据资源向社会开放"。2019年国家自然资源部发布的 《智慧城市时空大数据平台建设技术大纲》『对智慧城 市数据平台的重要作用进行了明确定位,"它既是智 慧城市不可或缺的、基础性的信息资源, 又是其他信 息交换共享与协同应用的载体, 为其他信息在三维空 间和时间交织构成的四维环境中提供时空基础,实现 基于统一时空基础下的规划、布局、分析和决策"。 2020年《中共中央、国务院关于构建更加完善的要素 市场化配置体制机制的意见》首次将数据作为一种新 型生产要素纳入到中央文件, 充分说明数据已从社会 经济发展的助力工具转变为核心动能。2022年《中华 人民共和国国民经济和社会发展第十四个五年规划和

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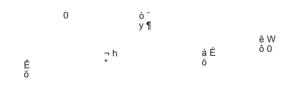
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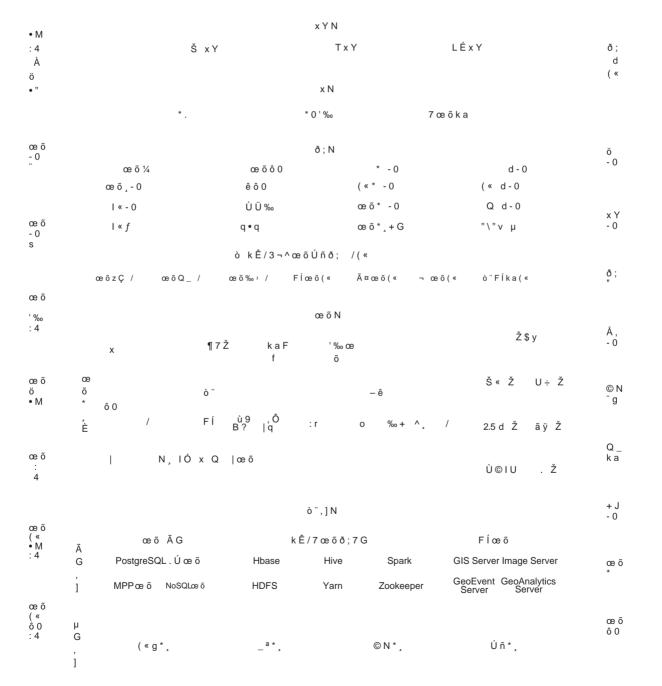
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