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报告

基于事立方模型的事件管理及多维度分析
Event Cube: Towards Event Management and Multi-dimensional Analysis

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讲者介绍 Biography

Qing Li is a Chair Professor at the Department of Computing, the Hong Kong Polytechnic University. He received his B.Eng. from Hunan University (Changsha), and M.Sc. and Ph.D. degrees from the University of Southern California (Los Angeles), all in computer science. His research interests include multi-modal data management, conceptual data modeling, social media, Web services, and e-learning systems. He has authored/co-authored over 400 publications in these areas. He is actively involved in the research community and has served as an associate editor of a number of major technical journals including IEEE Transactions on Knowledge and Data Engineering (TKDE), ACM Transactions on Internet Technology (TOIT), Data Science and Engineering (DSE), World Wide Web (WWW), and Journal of Web Engineering, in addition to being a Conference and Program Chair/Co-Chair of numerous major international conferences. He also sits in the Steering Committees of DASFAA, ER, ACM RecSys, IEEE U-MEDIA, and ICWL. Prof. Li is a Fellow of IEE/IET (UK), and a distinguished member of CCF (China).

报告摘要 Abstract

The last 3 decades have witnessed the big changes of data types, scales, and links with neighboring areas, from simple data with closed-world assumption to more complex objects with semi-closed/open assumption, from MB/GB/PB scale to PB/TB/EB/ZB scale, and from loose coupling to tight coupling with areas like Programming, Cloud Computing, IoT, and AI (machine learning in particular). In this talk, I will discuss several aspects of data management from a historical perspective, and through a joint collaboration we initiated, elaborate on the recent and complex types of data like (multi-modal) events for management. In particular, I will start with overviewing techniques of discovering events from multi-modal big data, and elaborate on building an event cube (EC) model to support event queries and analysis. Based on the essential event elements of 5W1H, the discovered events can be organized w.r.t. the dimensions and operated at various levels of granularity through the EC model. In addition, this model greatly facilitates analyzing and mining hidden/inherent relationships among the events, thereby enabling the system to answer the challenging questions of "how" and "why", thereby facilitating the analysis and mining of hidden/inherent relationships among the events effectively.

有兴趣合作之项目 Interested topics for future collaboration

causality relations, few-shot learning, Multimodal data fusion and mining, (personalized) recommender systems