Databases and the Silification of Health

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ABSTRACT

Developments in databases and computing are helping to create a revolution in health and in biomedical research. Many aspects of medicine are increasingly data-centric, from basics such as record-keeping to diagnosis and biological discovery. Drivers of change include massive curated biological data sets, consolidations of medical knowledge into systematised online repositories, innovations in data linkage, change of practice in hospitals, and new diagnostic technologies. However, the volumes of data means that new database and computational innovations are required if the data's value is to be fully exploited. This talk reviews the biomedical mechanisms that are creating data and explores achievements and challenges for database researchers in future health.

BIOGRAPHY

Professor Justin Zobel is leading the Computing for Life Sciences initiative within National ICT Australia's Victorian Laboratory. He received his PhD from the University of Melbourne and for many years was based in the School of CS&IT at RMIT University, where he led the Search Engine group. He is an Editor-in-Chief of the International Journal of Information Retrieval, an associate editor of ACM Transactions on Information Systems and of Information Processing & Management, and was until recently Treasurer of ACM SIGIR. In the research community, he is best known for his role in the development of algorithms for efficient text retrieval. He is the author of "Writing for Computer Science" and his interests include search, bioinformatics, fundamental data structures, and research methods.