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SDSC Researcher Co-Authors New Book on Managing Event Data

Systematic Information Modeling Key to Handling Data Deluge

A new book that focuses on how to create an information framework for managing a wide range of socially generated digital information has been co-authored by researchers at the San Diego Supercomputer Center (SDSC) at the University of California, San Diego, and UC Irvine.

The book, *Managing Event Information: Modeling, Retrieval, and Applications*, was written by SDSC researcher Amarnath Gupta; and Ramesh Jain, a Donald Bren Professor in Information and Computer Sciences at UC Irvine. The 141-page book is published by Morgan & Claypool, and is part of the publisher's *Synthesis Lectures on Data Management series*.

Amarnath Gupta, SDSC

The book addresses the exponential increase in data generation, thanks to the proliferation of citizen reporting, smart mobile devices, and social media. A significant portion of this data, called "event information" by the authors, is comprised of multimedia data, through which users share their experiences with a wider audience.

"In this book we explore a systematic information modeling and management framework that is necessary to capture this widely heterogeneous, and potentially very large, outlay of information produced by many different people," said Gupta, who is currently studying emerging information systems, notably the impact of high-performance computing platforms such as the systems at SDSC to assist in solving information systems problems. "We attempt to examine the modeling, storage, querying, and applications of such an event management system in a holistic manner. Using a semantic-web style

Ramesh Jain, UC Irvine

graph-based view of events, we show how such an event model, together with its query facility, can be used toward emerging applications such as semi-automated storytelling."

"Most data in early generations of information systems was related to objects," said Jain. "On the other hand, most data in emerging systems, particularly in social media, is related to events. There were no systematic approaches to represent all information related to events, as well as the relationships among them. Here we present approaches to represent, manage, and retrieve events and hope that these techniques will be very useful in emerging information systems."

The book, edited by M. Tamer Özsu, is available online free of charge to members of institutions that have licensed access to the Synthesis Digital Library of Engineering and Computer Science. The use of this book as a course text is encouraged and its text may be downloaded without restriction at licensing institutions or after a one-time fee of $25.00 at non-licensing schools. Please visit http://www.morganclaypool.com/page/licensed for more information. *Managing Event Information: Modeling, Retrieval, and Applications* can also be purchased in print directly from the Morgan & Claypool Bookstore for $35.00, or from Amazon and other booksellers worldwide.

MEDIA CONTACT

Jan Zverina, 858 534-5111 or jzverina@sdsc.edu

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