

Department of Computer Science 25th Anniversary

Distinguished Lecture Series



Prof. Lucila Ohno-Machado

Professor of Medicine & Founding Chief, Division of Biomedical Informatics
University of California San Diego, USA

Preserving Individual and Institutional Privacy in Distributed Regression Models

April 9, 2014 (Wed) 4:30pm

Y. C. Cheng Lecture Theatre (LT3), Ho Sin Hang Campus, HKBU

Abstract: Building predictive models using clinical and molecular data requires a large number of observations. The wide adoption of electronic health records in the USA allows the collection of data about a large number of patients. Learning healthcare systems are built from federated networks of clinical data warehouses. Their goal is to build data-driven models that improve patient outcomes. These models usually require adjustment for confounders such as co-morbidities and demographics. Distributed multivariate models help promote privacy by allowing data to remain at their origin and aggregating calculations made locally. I will describe methods and tools we have developed to perform privacy-preserving distributed computing on clinical data warehouses at the University of California San Diego and collaborating institutions.

Biography: Lucila Ohno-Machado, MD, PhD is Associate Dean for Informatics and Technology at the School of Medicine, University of California San Diego, founding chief of the Division of Biomedical Informatics and Professor of Medicine. She received her medical degree from the University of Sao Paulo and her doctoral degree in medical information sciences and computer science from Stanford. She leads a group of biomedical informatics faculty with diverse backgrounds in biomedicine, and quantitative sciences. Prior to her current position, she was faculty at Brigham and Women's Hospital, Harvard Medical School and at the MIT Division of Health Sciences and Technology and former director of its informatics training program. Dr. Ohno-Machado is an elected fellow of the American Institute for Medical and Biological Engineering and of the American College of Medical Informatics, American Society for Clinical Investigation, and Editor-In-Chief for the Journal of the American Medical Informatics Association (AMIA). She is past chair of the scientific program committee for the AMIA Annual Symposium and has served in review boards for NIH and other funding agencies.

Enquiry

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