Biomedical and Health Informatics Lecture Series

Tuesday, February 8, 2011
12:00 - 12:50 p.m., Room K-069

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"From Data to Decisions:
Directions in Evidence-Based Healthcare"

Nearly 2500 years ago, Hippocrates called for the careful recording and sharing of evidence about patients and their illnesses. While this charge sits at the foundation of modern medicine, large amounts of valuable healthcare data still go unrecorded. Information systems capturing increasing amounts of healthcare data have ignited interest in the exciting possibilities ahead for leveraging large quantities of patient and hospital data to increase the quality of care while reducing costs. I will discuss directions and trends with the use of machine learning and reasoning to enhance healthcare, touching on efficiencies that can be gained by collecting and analyzing large amounts of data about patients and their encounters with healthcare providers. The methods leverage algorithms for learning and decision making, and infrastructure for the electronic capture of records that will become more commonplace over time.

Dr. Eric Horvitz is a Distinguished Scientist at Microsoft Research. He pursues theoretical and practical challenges with machine learning and decision making under uncertainty. His contributions include advances in principles and applications of machine learning and inference, with efforts in biomedical informatics, search and retrieval, human-computer interaction, and e-commerce. He has been elected Fellow of the American Association for the Advancement of Science (AAAS) and of the Association for the Advancement of Artificial Intelligence (AAAI), and is currently serving as the Immediate Past President of the AAAI. He serves on the Advisory Board of the NSF Computer and Information Science and Engineering (CISE) Directorate and the council of the Computing Community Consortium (CCC), and is Associate Editor of *Decision Analysis* and the *Journal of the ACM*. He received his MD and PhD degrees at Stanford University. More information is at http://research.microsoft.com/~horvitz.