Ming Hsieh

Seminar Announcement Computer Engineering

Advances in Clouds and Their Application to Data Intensive Problems

Geoffrey Fox

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Friday, February 24th 10:30–11:30 AM HED-116

Q&A 11:30am-12:00pm

Abstract:

We introduce clouds and discuss the characteristics of problems that run well on them. We try to answer when you need your own cluster; when you need a Grid; when a national supercomputer; and when a cloud. We compare "academic" and commercial clouds and the experience on FutureGrid with Nimbus, Eucalyptus, OpenStack and OpenNebula. We look at programming models especially MapReduce and Iterative Mapreduce and their use on data analytics. We compare with an Internet of Things application with a Sensor Grid controlled by a cloud infrastructure.



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Fox received a Ph.D. in Theoretical Physics from Cambridge University **a**nd is now distinguished professor of Informatics and Computing, and Physics at Indiana University where he is director of the Digital Science Center and Associate Dean for Research and Graduate Studies at the School of Informatics and Computing. He previously held positions at Caltech, Syracuse University and Florida State University. He has supervised the PhD of 62 students and published over 600 papers in physics and computer science with a hindex of 61 and over 18700 citations. He currently works in applying computer science to Bioinformatics, Defense, Earthquake and Ice-sheet Science, Particle Physics and Chemical Informatics. He is principal investigator of FutureGrid – a facility to enable development of new approaches to computing. He is involved in several projects to enhance the capabilities of Minority Serving Institutions.



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Hosted by Prof. Kai Hwang