Transforming Big Data into Smart Data

Date/Time: January 4, 2014.

Time: 5:30 p.m.

Venue: Ahmedabad Education Society Institute of Computer Studies

Deriving Value via harnessing Volume, Variety, and Velocity using semantics and Semantic Web

Amit Sheth, Kno.e.sis – Wright State University

Abstract:

Big Data has captured alotof interest in research and industry, with anticipation of better decisions, efficient organizations, and many new jobs. Much of the emphasis is on technology that handles volume, including storage and computational techniques to support analysis (Hadoop, NoSQL, MapReduce, etc), and the challenges of the four Vs of Big Data: Volume, Variety, Velocity, and Veracity. However, the most important feature of Big Data, the raison d'etre, is noneof these 4 Vs -- but **value**. In this talk, I will define the concept of Smart Data, and discuss how it can be realized by extracting value from a variety of data types (eg., social data, sensor data, health care data) that make up today's Big Data. To accomplish this task requires organized ways to harness and overcome the original four V-challenges. In particular, we will need to utilize metadata, employ semantics and intelligent processing, and go beyond traditional reliance on ML and NLP.

For harnessing volume, I will discuss the concept of Semantic Perception, that is, how to convert massive amounts of data into information, meaning, and insight useful for human decision-making. For dealing with Variety, I will discuss experience in using agreement represented in the form of ontologies, domain models, or vocabularies, to support semantic interoperability and integration, and discuss how this can not simply be wished away using NoSQL. Lastly, for Velocity, I will discuss somewhat more recent work on Continuous Semantics, which seeks to use dynamically created models of new objects, concepts, and relationships and uses them to better understand new cues in the data that capture rapidly evolving events and situations. More at http://knoesis.org/vision

Speaker Bio:

Amit P. Sheth (http://knoesis.org/amit) is an educator, researcher, and entrepreneur. He is the LexisNexis Eminent Scholar and founder/executive director of the Ohio Center of Excellent in Knowledge-enabled Computing (Kno.e.sis). Kno.e.sis conducts research in Web 3.0 and applications to healthcare and life sciences, cognitive science, material sciences, and defense/intelligence. Kno.e.sis' activities have resulted in Wright State University being recognized as a top organization in the world on World Wide Web in research impact. With current h-index of 82, Prof. Sheth is one of top authors in Computer Science (top 50, 10 yrs), World Wide Web (top 2, 10 yrs) and databases (based on Microsoft Academic Search). His research has led to several commercial products, many real-world applications, and two earlier companies with two more in early stages. One of these was Taalee/Voquette/Semagix, which was likely the first company (founded in 1999) that developed Semantic Web applications and application development platforms. He is among the most highly cited authors in Computer Science.

For Whom: Faculty, Students, Researchers and Professional

Detailed Schedule:

Opening remark - 5.30 p.m.

Expert talk on 'Transforming Big Data into Smart Data' - 5.35 p.m.

Q & A, Closing and Tea / Coffee 6.45 p.m.

It is requested to make registration for attending this public lecture through given link.

Venue: AES school of Computer Studies, AG teachers college campus, Opp. L.D. Arts, University, Ahmedabad.