"Mining and Mine field: a Revolution in Social Science Research"
by Dipak Gupta (San Diego State University)

Abstract:
There is a new revolution taking place in how social scientists research aggregate phenomena. Analyses of social phenomena received an unprecedented boost after the invention of high-speed computers. Prior to the 1960s, most significant advances in theory building in social sciences were relegated largely to what we may charitably call, “informed speculation.” The invention of computers enhanced the capabilities to crunch numbers beyond any human capabilities. Suddenly, multivariate regressions, which were relegated largely to theoretical development, became commonplace in estimation. Today widespread use of the Internet and our enhanced capability to monitor it has opened up a brand new world of social science research. In the past, “data mining” was a dirty word implying a fishing expedition without a proper theoretical understanding of the real world. The recent years, however, have seen a phenomenal increase in research based on data mining, where the deductive reasoning of a theory based investigation is often seen as anachronistic. By bringing this larger issue to the fore, we would like to explore the advantages and pitfalls of the new methodology.

Bio:
Dipak K. Gupta is Distinguished Professor Emeritus in Political Science, San Diego State University. Dipak Gupta is part of a multi-University team on a grant, based at Virginia Tech from IARPA. The multi-disciplinary team aims at developing early warnings on protest demonstration, spread of epidemics, economic and political upheavals by monitoring open source information on the Web. Read the detailed project description. He is a Co-principal investigator on a four-year National Science Foundation Grant, where he is working with a team of SDSU researchers in developing a new methodology for tracking ideas across the world through the Internet. See:http://mappingideas.sdsu.edu/. Professor Gupta is also working with a team of economists from Norway, Australia, and the World Bank to develop an experimental economic model on the transformation of terrorist groups into organized crime syndicates. The project, "Bridging Areas of Expertise: Funding Research on Terrorism" is funded by a grant from the National Science Foundation.