Preface for the special issue on Knowledge Discovery and Management in Health Informatics

One of fundamental issues that healthcare/biomedical researchers encounter today is how to make use of the enormous amount of electronic healthcare and biomedical data. Knowledge discovery from Healthcare data holds great promise to improve the quality of patient care, prevent potential medical errors, and reduce healthcare cost. In addition, this may enable the practices of medicine to be data-driven and accelerate the practice of evidence-based medicine. Establishing a methodology for knowledge discovery and management of large amounts of health/biomedical data has therefore become a main priority in health informatics and biomedicine. To accomplish this objective, both practical applications and theoretical research will be essential.

The International Workshop on Knowledge Discovery and Management in Health Informatics (KDMHI), in conjunction with the IEEE International Conference on Bioinformatics and Biomedicine (BIBM) 2007, provided an important forum for disseminating state-of-the-art research results on health informatics, for discussing interesting and challenging research issues and for sharing hands-on experience in developing and applying health information technologies to biomedical domain.

The workshop received 8 papers and the workshop program committee accepted 3 papers for oral presentation at the workshop. The guest editors selected 2 of the workshop papers and invited the authors of these two papers to submit extended versions of their papers to this special issue. The editors called for additional papers. The following 3 papers were accepted after a rigorous review process and were revised based on reviewer comments.

- Lessons From Developing an Annotated Corpus of Patient Histories
  Thomas Brox Røst, Ola Huseth, Øystein Nytrø, and Anders Grimsmo

- Linking Clinical Events in Elderly to In-home Monitoring Sensor Data: A Brief Review and a Pilot Study on Predicting Pulse Pressure
  Mihail Popescu and Elena Florea

- Bayesian Value of Information Analysis with Linear, Exponential, Power Law Failure Models for Aging Chronic Diseases
  Chi-Chang Chang

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