HealthMining 2015:
The ICDM Workshop on
Data Mining and Decision Analytics on Public Health and Wellness

In conjunction with the IEEE International Conference on Data Mining (IEEE ICDM 2015)

For many years, data mining and decision analytics techniques have already been extensively applied to various domains, such as smart environments, social networks, marketing, and web technology. The focus of this workshop is mainly on the issues and challenges of data mining techniques with the purpose of improving human well-being and quality of life. It is expected that the workshop may increase the diversity of application areas that can benefit from data mining. At the same time, it is also desirable that the discussion and vision of this workshop would also offer further insights into, as well as new tools for, the issues of data collection, processing, system modeling, simulation and optimization arising from various public health topics.

The objective of this workshop is to serve as a venue for researchers to discuss how data mining and analytics methods can contribute to improving public health quality in clinical, medical/biomedical, and healthcare systems in smart ways, including evidence-based medicine, personalized treatment and healthcare, assistive technology and active surveillance and control of diseases. In addition to mining statistical regularities, associations, or causalities from large-scale health-related datasets, it would be more desirable to further investigate how the results can effectively and efficiently support decision-making, system modeling, optimization, and simulation in various healthcare systems.

Topics Of Interest

- Large-scale data acquisition and management issues for public health
- Social and other network-based analysis for public health
- Medical big data mining and innovative applications
- Mining risk patterns in medical data
- Mental and physical health data integration
- Biomarker discovery and biomedical data mining
- Clinical data mining for practice knowledge building
- Data mining from clinical decision-making, and practitioner reflection
- Data mining from genetic data of diseases
- Data mining for disease profiling and personalized treatment

- Data mining for (active) syndromic surveillance
- Data mining for infectious/chronic disease epidemiology and control
- Data mining for exploring hidden patterns in clinical systems
- Data mining for medical/biomedical, and healthcare systems
- Data mining for assistive environments
- Data modeling and information management for pervasive assistive environments
- Data mining and knowledge modeling for wellness
- Spatiotemporal data exploration and mining of diseases
- Unstructured data mining in medicine and healthcare
- Semantic data mining in medicine and healthcare
- Scalable data integration in medicine and healthcare
- Evidence-based decision-support systems
- Healthcare knowledge abstraction, classification, and summarization
- Healthcare knowledge computerization, execution, inference, and representation

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IMPORTANT DATES

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