Call for Papers
ACM Transactions on Management Information Systems (ACM TMIS)
Special Issue on Informatics for Smart Health and Wellbeing

Despite a substantial percentage of GDP spent on healthcare per year, preventable medical errors are still inevitable due to fragmentation of medical information. In recent years, a significant effort has been placed on advancing information technology for effective healthcare and wellness in both academic and industrial applications. There is increased effort to transform reactive care to proactive and preventive care, clinic-centric to patient-centered practice, training-based interventions to globally aggregated evidence, and episodic response to continuous well-being monitoring and maintenance. To address the challenge of smart health and wellbeing we need to include the following (a) an interoperable, digital infrastructure of shareable health data and knowledge, (b) utilizing diverse data to provide automated and augmented insight, discovery, and evidence-based health and wellness decision support systems, (c) a cyber-based empowering of patients and healthy individuals that enables them to play a substantial role in their own health and treatment, (d) monitoring and assisting individuals using intelligent systems (including sensors, devices, and robotics) to maintain function and independence, and e) technologies such as data/text mining that assist in the management, curation, discovery of new knowledge for decision support.

In this special issue, we are particularly interested in system-oriented and research papers accompanied with an in-depth evaluation.

Topics of interest include but not limited to:

Better access to relevant information: sharing, integrating and providing information
- Patient education, learning and involvement
- Consumer and clinician health information needs, seeking, sharing, and use
- Healthcare knowledge abstraction, classification and summarization
- Effective Information retrieval for healthcare applications
- Natural language processing and text mining for biomedical and clinical applications, EHR, clinical notes, and health consumer texts
- Intelligent systems and text mining for electronic health records
- Health and clinical data integrity, privacy and representativeness for secondary use of data
- E-communities, social networks, and social media for patients and caregivers

Improving the clinical practice and training
- Virtual patient modeling for learning, practicing and demonstrating care practices
- Medical recommender systems
- Text mining clinical text for innovative applications (patient monitoring, recommender systems for clinicians, adverse effects monitoring)
- Mental and physical health data integration
- Computer-aided diagnosis
- Computational support for patient-centered and evidence-based care
- Disease profiling and personalized treatment
- Visual analytics for healthcare
- Transdisciplinary healthcare through IT
Combining, augmenting, integrating and mining clinical and medical data
- Data augmentation and combination for evidence-based clinical decision making
- Biomarker discovery and biomedical data mining
- Semantic Web, linked data, ontologies for healthcare applications
- Software infrastructure for biomedical applications (text mining platforms, semantic web, workflows, etc)
- Intelligent Medical data management
- Translational approaches to healthcare
- Computational intelligence methodologies for healthcare

Assistive, persuasive and intelligent devices and software for medical care and health monitoring
- Assistive devices and tools for individuals with special needs
- Intelligent medical devices and sensors
- Continuous monitoring and streaming technologies for healthcare
- Computer support for surgical intervention
- Localized data for improving emergency care
- Localization, persuasion and mobile approaches to increasing healthy life styles and better self-care
- Virtual and augmented reality for healthcare

Global systems for population monitoring and large-scale data analysis and management
- Global spread of disease: models, tools and interventions
- Data analytics for clinical care
- Systems for Telemedicine
- Pharmacy informatics systems and drug discovery
- Collaboration technologies for healthcare
- Healthcare workflow management
- Meta-studies of community, national and international programs

On-Line Submission: http://mc.manuscriptcentral.com/tmis (please select "Special Issue: Smart Health and Wellbeing" as the manuscript type). Details of the journal and manuscript preparation are available on the website: http://tmis.acm.org/

Important Dates
Submission Deadline: November 30, 2012
Notification of First Review: February 4, 2013
Submission of Revised Manuscript: March 4, 2013
Notification of Second Review: March 25, 2013
Submission of Second Revised Manuscript: April 8, 2013
Final Acceptance notification: April 15, 2013
Final Manuscript Due: April 29, 2013

Guest Editors
Christopher C. Yang (Chris.Yang at Drexel.edu)
Drexel University, USA

Sophia Ananiadou (Sophia.Ananiadou at manchester.ac.uk)
University of Manchester, UK and National Centre for Text Mining

Gondy Leroy
Claremont Graduate University (gondy.leroy at cgu.edu)