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PREFACE: MEDICAL DATA AND SOCIAL MEDIAL ANALYSIS

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This special issue is under the theme of "Medical Data and Social Media Analysis and Modeling". We are particularly pleasant to report in this special issue several interesting and cutting-edge research work, carried out by our colleagues in Canada and United States.

The paper entitled "Older Adults, Frailty, and the Social and Behavioral Determinants of Health" (by Gao et. al. from the University of Minnesota) aims to examine the associations between social and behavioral determinants of health (SBDH) and frailty among older adults using an existing Omaha System dataset collected in the community. This exploratory data analysis study successfully identified relationships between SBDH and frailty for older adults along a continuum of frailty using the Omaha System.

Led by Dr. Sunmoo Yoon, a research scientist from Columbia University Medical Center in the city of New York, "Prediction Models for Burden of Caregivers Applying Data Mining Techniques" (Yoon et. al.) applied several classification algorithms (J48, RandomForest, Multilayer Perceptron, AdaboostM1, etc.), to iteratively generate prediction models for caregiving difficulty with 10-fold cross validation. In another line of research, Yoon and her collaborative team sought to gain insights from tweets in the languages of both English/Korean about culturally-appropriate nursing activities for an emerging global acute disease management, specifically Middle East Respiratory Syndrome (MERS): "What can we learn about the Middle East Respiratory Syndrome (MERS) outbreak from Tweets?".

Dr. Xiangmin Zhang from the School of Information Sciences at Wayne State University, at the same time, his paper "User Perceived Learning from Interactive Searching on Big Medical Literature Data" investigates feasibility and applicability of using search engines for massive amount of medical literature data, using the PubMed data in particular. Searching behaviors are associated with the user's perceived learning, several measures also are used for investigating properties of learning during searching process. The fifth paper we have collected is "Fuzzy Temporal Meta-clustering of Financial Trading Volatility Patterns", by Prof. Pawan Lingras and et. al. from St. Mary University in Halifax, NS, Canada. The paper entitled "CertOnto: Towards an Ontological Representation of Fair Trade Certification Standards" seeks automatizing the process of fair trade certification processes through use of ontologies. Particularly, an ontology for the purpose called CertOnto is proposed in the paper. Dr. Xing Tan from York University in Canada and Prof. Giri Kumar Tayi from State University of New York at Albany were two key members in the I-Choose project (Building Information Sharing Networks to Support Consumer Choice) sponsored by the US National Science Foundation (NSF).

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