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Third ACM SIGSPATIAL International Workshop on the Use of GIS in Public Health

In conjuncture with the 22nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems

Proceedings of the 3rd ACM SIGSPATIAL International Workshop on the Use of GIS in Public Health (HealthGIS) November 4th, 2014. Dallas, Texas, USA

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FOREWORD

These proceedings contain the papers selected for presentation at the third edition of the ACM *Workshop* on the Use of GIS in Public Health (HealthGIS 2014), which is being held in conjunction with the ACM SIGSPATIAL GIS conference.

Public health and public healthcare are important social issues with deep implications for government administrations and with large effect on individual standards of living. In many countries, healthcare institutions are being pushed to their limit by an aging population and increased urbanization (which may lead to additional health issues such as pollution). Many of these challenges have strong geospatial components. For example, GIS techniques may be used to determine spatial correlates of health. In addition, the ability to detect and record the location history of individuals and groups using cellular phones coupled with the ability to analyze and visually present large amounts of geospatial data can be harnessed to advance health-related applications. Other notable examples include using geographic information systems and appropriate applications to assist the evacuation of injured people, monitoring the spread of infectious diseases, collecting data for statistical analysis of the effect of pollution on public health, and providing assistance to elderly people with orientation difficulties. These applications necessitate new techniques, systems, and algorithms to effectively utilize geospatial data in the context of public health. This workshop aims to deliver cutting edge research in the emerging field of health and GIS. The program of the workshop is organized in four sessions: (1) A research session on Guidance and Assistance Applications, (2) A research session on Mapping and Tracking Diseases, (3) An invited talk and a panel of experts on two selected topics, and (4) A research session about Geographical Analysis and Monitoring of Health Data.

We would like to thank the many people who contributed to the *HealthGIS 2014*. We thank the authors for providing the content of the program and the program committee for the evaluation process. We would also like to thank the organization committee of ACM GIS 2014 for the help with the workshop planning.

We hope that these proceedings will inspire new research ideas in the field of GIS and Health, and that you will serve as a valuable resource for the community.

Daniel W. Goldberg Ori Gudes and Yaron Kanza

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Table of Contents

Session 1: Guidance and Assistance Applications
A GIS-based Serious Game Recommender for Online Physical Therapy,
Imad Afyouni, Faizan Ur Rehman, Ahmad Qamar, Akhlaq Ahmad, Mohamed Abdur Rahman and Saleh Basalamah
Prediction of Freezing of Gait from Parkinson's Disease Movement Time Series 11 using Conditional Random Fields
Roland Assam and Thomas Seidl
Step Up Life: A Context Aware Health Assistant
Vijay Rajanna, Raniero Lara-Garduno, Dev Jyoti Behera, Karthic Madanagopal, Daniel Goldberg and Tracy Hammond
The threshold of Route Guidance for Visually Impaired Based on Haptic
Guansheng Wang and Jianghua Zheng
Session 2: Mapping and Tracking Diseases
Spatio-Temporal Disease Tracking Using News Articles
Rongjian Lan, Marco Adelfio and Hanan Samet
Geovisualization for cluster detection of Hepatitis A & E outbreaks in Ahmedabad, \dots 45 Gujarat, India
Carl Hughes, Raja Sengupta, Deepak Saxena and Vinayak Naik
Bayesian Multiscale Modeling for Aggregated Disease Mapping Data
Mehreteab Aregay, Andrew B. Lawson, Christel Faes and Russell Kirby

Session 3: Invited Talk and Panel

Session 4: Geographical Analysis and Monitoring of Health Data

A model for the Geographical Analysis and monitoring of agricultural areas example.. 55 and tests in south Italian regions

Veltri Pierangelo, Giuseppe Tradigo, Giovanni Canino and Carmine Pagliaro

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Giovanni Canino, Pietro H. Guzzi, Giuseppe Tradigo, Aidong Zhang and Pierangelo Veltri

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