1. Record Nr. UNINA9910484737503321

Titolo	Social, Cultural, and Behavioral Modeling : 10th International Conference, SBP-BRiMS 2017, Washington, DC, USA, July 5-8, 2017, Proceedings / / edited by Dongwon Lee, Yu-Ru Lin, Nathaniel Osgood, Robert Thomson
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-60240-3
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XVIII, 358 p. 98 illus.)
Collana	Information Systems and Applications, incl. Internet/Web, and HCI ; ; 10354
Disciplina	302.30285
Soggetti	Computers and civilization Artificial intelligence Application software Data mining Computer communication systems Computers and Society Artificial Intelligence Computer Appl. in Social and Behavioral Sciences Information Systems Applications (incl. Internet) Data Mining and Knowledge Discovery Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Behavioral and Social Sciences -- Inferring Follower Preferences in the 2016 U.S. Presidential Primaries with Sparse Learning -- 1 Introduction -- 2 Related Work -- 3 Data -- 4 Methodology -- 4.1 Model Formulation -- 4.2 Coordinate Descent Algorithm -- 4.3 Model Selection -- 5 Empirical Results -- 6 Conclusions -- References -- Detection and Analysis of 2016 US Presidential Election Related Rumors on Twitter -- 1 Introduction -- 2 Related Work -- 3 Dataset -- 4 Rumor Detection -- 4.1 Rumor Detection Algorithms -- 4.2 Evaluation on Rumor Classification Task --

4.3 Evaluation on Rumor Identification Task -- 5 Analyzing Rumor Tweets Pertaining to the Election -- 5.1 Which Side Posted the Most Rumors? -- 5.2 Who Posted These Rumors? -- 5.3 What Rumors Did They Post? -- 5.4 When Did They Post These Rumors? -- 6 Conclusions -- References -- How Emotional Support and Informational Support Relate to Linguistic Alignment -- 1 Introduction -- 2 Related Work -- 3 Automated Classification of Social Support Types -- 4 Linguistic Alignment Measures -- 5 Corpus -- 6 Alignment and Support Type at Post Level -- 6.1 Methods -- 6.2 Results -- 7 Discussion -- 8 Conclusion and Future Work -- References -- Gender Politics in the 2016 U.S. Presidential Election: A Computer Vision Approach -- 1 Introduction -- 2 Related Literature -- 3 Data and Methodology -- 3.1 Data -- 3.2 Modeling Gender Affinity -- 3.3 Statistical Testing -- 3.4 Gender Inference by Computer Vision -- 4 Case Study: The Woman Card -- 5 Limitations and Future Research -- 6 Conclusions -- References -- Agent-Based Modeling Approach in Understanding Behavior During Disasters: Measuring Response and Rescue in eBayanihan Disaster Management Platform -- 1 Introduction -- 2 Literature Review.
2.1 Agent-Based Modeling in Understanding Behaviors During Disaster and Emergency Events -- 2.2 Organizational Chart of the Philippine Rescue and Response Cluster -- 2.3 eBayanihan as a Social Networking Platform for Disaster Management -- 3 Methodology -- 4 Results -- 5 Conclusion -- References -- An Agent-Based Model of Posting Behavior During Times of Societal Unrest -- 1 Introduction -- 2 Data Collection -- 2.1 Preliminary Analysis -- 3 Model Description -- 4 Results and Discussion -- References -- 'They All Look the Same to Me.' An Agent Based Simulation of Out-Group Homogeneity -- Abstract -- 1 Background -- 2 Model Description -- 2.1 Model Scope and Architecture -- 3 Experimental Runs -- 3.1 A World Without Out-Group Homogeneity -- 3.2 Introducing Out-Group Homogeneity -- 4 Discussion and Conclusion -- References -- Cultural Dimension Theory Based Simulations for US Army Personnel -- 1 Introduction -- 2 Literature Review -- 2.1 Cultural Dimensions -- 2.2 Virtual Reality C3 Simulations -- 3 Cultural Dimension Theory Applicability -- 3.1 Objective -- 3.2 Method -- 3.3 Results -- 3.4 Discussion -- 4 Cultural Simulation Design Process -- 4.1 Overview -- 4.2 Simulation Development -- 5 Conclusion -- References -- Socio-Cultural Cognitive Mapping -- Abstract -- 1 Introduction -- 2 Algorithm -- 2.1 Selecting Data -- 2.2 Generating the Similarity and Constraint Matrices -- 2.3 Moving Nodes to Satisfice Constraints -- 2.4 Evaluating Fit and Returning Results -- 3 The Hatfield-McCoy Case Study -- 4 Discussion and Conclusion -- References -- Cyber and Intelligence Applications -- A Cognitive Model of Feature Selection and Categorization for Autonomous Systems -- Abstract -- 1 Introduction -- 2 Approach -- 2.1 A Cognitive Theory of Categorization -- 2.2 ACT-R Implementation -- 3 Testing and Revision -- 3.1 Testing Procedure.
3.2 Results and Incremental Refinement -- 4 Conclusions and Future Directions -- Acknowledgements -- References -- ENWalk: Learning Network Features for Spam Detection in Twitter -- Abstract -- 1 Introduction -- 2 Related Work -- 3 Dataset -- 4 Spam Analysis -- 4.1 Spammer Type -- 4.2 Activity Window -- 4.3 Fraudulence -- 4.4 Mentioning Celebrities and Popular Hashtags -- 5 Learning Latent Features for Spam Detection -- 5.1 Overview -- 5.2 The Optimization Problem -- 5.3 Equivalent Neighborhood Generation -- 5.4 Algorithm: ENWalk -- 6 Experiment -- 6.1 Baseline Methods -- 6.2 Node Classification -- 6.3 Node Ranking -- 7 Conclusion -- Acknowledgements -- References -- Understanding Russian

Information Operations Using Unsupervised Multilingual Topic Modeling -- Abstract -- 1 Introduction -- 2 STEMMER: A Framework for Unsupervised Analytics -- 3 Results -- 3.1 'Brilliant Jump' NATO Exercises Dataset -- 3.2 2016 Presidential Election Dataset - Results of Interest -- 4 Conclusion -- References -- Social Cyber Forensics Approach to Study Twitter's and Blogs' Influence on Propaganda Campaigns -- Abstract -- 1 Introduction -- 2 Literature Review -- 3 Methodology -- 4 Conclusion, Summary, and Future Directions -- Acknowledgements -- References -- From Cyber Space Opinion Leaders and the Diffusion of Anti-vaccine Extremism to Physical Space Disea ... -- Abstract -- 1 Introduction -- 2 Background -- 3 Methodology -- 3.1 Agents and Environment -- 3.2 Process Overview and Model Scheduling -- 3.3 Initialization -- 4 Results -- 5 Discussion -- References -- Event-Based Model Simulating the Change in DDoS Attack Trends After P/DIME Events -- 1 Introduction -- 2 Relevant Work -- 3 Method -- 4 Virtual Experiment -- 5 Results and Discussion -- 5.1 Overview -- 5.2 Limitations -- 6 Conclusion -- References. Using a Real-Time Cybersecurity Exercise Case Study to Understand Temporal Characteristics of Cyberattacks -- 1 Introduction -- 2 Methodology -- 3 Results -- 3.1 Observed Duration of Adversarial Intrusion Chain Stages -- 3.2 Time Series Generation and Clustering -- 3.3 Analysis of the Adaptation Process -- 4 Conclusion -- References -- Hybrid Modeling of Cyber Adversary Behavior -- Abstract -- 1 Introduction -- 2 Hybrid Cyber Adversary Models -- 2.1 Decision Theoretic Models -- 2.2 Cognitive Decision-Making Models -- 2.3 Grammatical Representation of Cyber Attack Vectors -- 2.4 Reactive Agent Framework for Realistic Goal Prioritization -- 3 Discussion and Conclusions -- Acknowledgements -- References -- Cyber-FIT: An Agent-Based Modelling Approach to Simulating Cyber Warfare -- Abstract -- 1 Introduction -- 2 Background -- 3 The Cyber-FIT Simulation Framework -- 3.1 Model Definition -- 3.2 Terrain -- 3.3 Forces -- 3.4 Interactions -- 3.5 Model Outputs -- 4 Virtual Experiments -- 4.1 How Many Forces Should We Deploy to Minimize the Effect of a Routing Protocol Attack (RPA) in an ... -- 4.2 What Will Be the Expected Effect on Cyber Terrain if the Adversary Switches from a Fifteen Day R ... -- 4.3 What Number of Forces Maximizes Expected Cyber Terrain Mission Capability Rate Against Random At ... -- 5 Discussion -- 6 Conclusion -- References -- Information, Systems, and Network Sciences -- Large-Scale Sleep Condition Analysis Using Selfies from Social Media -- Abstract -- 1 Introduction -- 2 Model Construction -- 2.1 Training Data Collection and Rating -- 2.2 Feature Extraction for Facial Images -- 2.3 Model Training and Prediction -- 3 Selfie Collection, Processing and Prediction -- 4 Main Result -- 4.1 Age, Gender, and Race -- 5 Related Work -- 6 Limitations and Future Work -- 7 Conclusions -- Acknowledgement -- References. Modeling the Co-evolution of Culture, Signs and Network Structure -- 1 Introduction -- 2 Methodology -- 3 Results -- 4 Discussion -- References -- Simulating Population Behavior: Transportation Mode, Green Technology, and Climate Change -- Abstract -- 1 Introduction -- 2 Theoretical Background -- 2.1 The Agent Based Model -- 3 ABM Model Experiments -- 3.1 Transportation Behavior Model -- 3.2 Results Analysis and Discussion -- 4 Conclusion -- Acknowledgements -- References -- A Parametric Study of Opinion Progression in a Divided Society -- 1 Introduction -- 2 Simulation Setup -- 2.1 Probabilistic Finite State Automata -- 2.2 Bounded Confidence Dynamic -- 3 Simulation Scenarios and Results -- 3.1 Effect of Global Events -- 3.2 Effect of Influencers -- 3.3 Effect of Distance Parameter (d) -- 4 Conclusion and Future Work -- References -- Integrating Simulation

and Signal Processing with Stochastic Social Kinetic Model -- 1 Introduction -- 2 Stochastic Social Kinetic Model -- 3 Particle Filter with Stochastic Kinetic Model -- 4 Tracking City-Scale Transportation Dynamics -- 4.1 Modeling Traffic Dynamics -- 4.2 Experimental Setup -- 4.3 Evaluation Results -- 5 Conclusions -- References -- Learning Network Dynamics from Tumblr®: A Search for Influential Users -- 1 Introduction -- 2 Transforming Network Attributes -- 2.1 Signal Processing on Graphs -- 2.2 The Dictionary Learning Approach -- 2.3 Dictionary Learning Adaptations for Improved Parallelism -- 3 Opinion Dynamics Simulations -- 3.1 The Decaying Cascade Model -- 3.2 The Threshold Model -- 4 Simulation Analysis -- 5 Real Data Results -- 6 Conclusion -- References -- Modeling the Impact of Protraction on Refugee Identity -- Abstract -- 1 Introduction -- 2 Protraction and Refugee-Based Identity -- 3 Modeling Approach -- 4 Model Development -- 5 Simulation Results -- 6 Conclusions -- Acknowledgements.
References.

Sommario/riassunto

This book constitutes the refereed proceedings of the 10th International Conference on Social, Cultural, and Behavioral Modeling & Prediction and Behavior Representation in Modeling and Simulation, SBP-BRiMS 2017, held in Washington, DC, USA, in July 2017. The 16 full papers and 27 short papers presented were carefully reviewed and selected from 79 submissions. Owing to its strong multi-disciplinary heritage, the papers represent a large range of disciplines including computer science, psychology, sociology, communication science, public health, bioinformatics, political science, and organizational science and use numerous types of computational methods such as machine learning, language technology, social network analysis and visualization, agent-based simulation, and statistics. They are organized in the following topical sections: behavioral and social sciences; cyber and intelligence applications; information, systems, and network sciences; and methodology.