Monday October 19, 2020 – **Conference Day 1, Reception, & Keynote**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1</th>
<th>Session 2</th>
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<tbody>
<tr>
<td>8:45am – 9:00am</td>
<td>Welcome</td>
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<tr>
<td>9:00am – 10:30am</td>
<td><strong>Human Modeling</strong>&lt;br&gt;<strong>Moderators: Adewale Obadimu, Thomas Marcoux, and Mustafa Alassad</strong>&lt;br&gt;- Modeling Interventions for Insider Threat&lt;br&gt;- Digital Trails of Work Stressors&lt;br&gt;- The Human Resource Management Parameter Experimentation Tool&lt;br&gt;- Homicidal Event Forecasting and Interpretable Analysis using Hierarchical Attention Model&lt;br&gt;- A Game-Transformation-based Framework to Understand Initial Conditions and Outcomes in the context of Cyber-enabled Influence Operations (CIOs)&lt;br&gt;- Controversial information diffuses faster and further in Reddit&lt;br&gt;- Breadth verses depth: the impact of tree structure on cultural influence&lt;br&gt;- A Game-Transformation-based Framework to Understand Initial Conditions and Outcomes in the context of Cyber-enabled Influence Operations (CIOs)&lt;br&gt;- Introduction and program overview&lt;br&gt;- Simulations&lt;br&gt;- Discussion and lessons learned</td>
<td>Moderators: Thomas Magelinski, Mihovil Bartulovic, and Joshua Uyheng&lt;br&gt;- Polarizing Tweets on Climate Change&lt;br&gt;- Controversial information diffuses faster and further in Reddit&lt;br&gt;- Breadth verses depth: the impact of tree structure on cultural influence&lt;br&gt;- A Game-Transformation-based Framework to Understand Initial Conditions and Outcomes in the context of Cyber-enabled Influence Operations (CIOs)&lt;br&gt;- Discussion and lessons learned</td>
<td>DARPA Ground Truth Program and Challenge Design&lt;br&gt;&lt;br&gt;<strong>Moderator: Ariel M. Greenberg or Asmeret Naugle</strong>&lt;br&gt;- Introduction and program overview&lt;br&gt;- Simulations&lt;br&gt;- Discussion and lessons learned</td>
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**Conference Presenters should prepare to join the session 10 minutes prior to the scheduled time below.**

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*All times US Eastern. Updated October 18, 2020*
10:50am – 12:20pm

**Agent Modeling**
Moderators: Shahan Ali Memon, Ibrahim Rahhal, and Christine Sowa
- Towards Agent Validation of a Military Cyber Team Performance Simulation
  Geoffrey Dobson and Kathleen Carley
- Development of a Hybrid Machine Learning Agent Based Model for Optimization and Interpretability
  Paul Cummings and Andrew Crooks
- Modeling Forced Migrant Populations Using ABMs
  Melanie Richey
- Development of a Hybrid Machine Learning Agent Based Model for Optimization and Interpretability
  Paul Cummings and Andrew Crooks

**Political Influence**
Moderators: Yigeng Zhang, Daniele Bellutta, and Mihovil Bartulovic
- Lying About Lying on Social Media: A Case Study of the 2019 Canadian Elections
  Catherine King, Daniele Bellutta and Kathleen Carley
- PoliBERT: Classifying political social media messages with BERT
  Shloak Gupta, Sarah Bolden, Jay Kachhadia, Ania Korsunskaja and Jennifer Strome-Galley
- Canadian Federal Election and Hashtags That Do Not Belong
  Thomas Magelinski, Mihovil Bartulovic and Kathleen M. Carley
- The devil is in the details: Studying the Influence and Content Diffusion Dynamics of Social Bots During 2014 Italian Mayoral Elections
  Pujan Paudel and Andrew Sung

**DARPA Ground Truth Performance and Evaluation**
Moderator: Ariel M. Greenberg, Ariel M. or Asmeret Naugle
- Reminder of team roles and missions
  Adam Russell
- Research teams
  - (A) James Evans
  - (B) Aurora C. Schmidt
  - (IV&V, Ed) Svitlana Volkova (EGDS)
- Evaluation and results analysis
  - (T&E, Ed) Asmeret Naugle
- Discussion and lessons learned

12:20pm – 1:20pm

**LUNCH BREAK**

1:20pm – 2:50pm

**Group Detection**
Moderators: Ninareh Mehrabi, Pegah Hozhabriendi, and Lynnette Hui Xian Ng
- Twitter Community Detection Using Principles of Dynamic Social Impact Theory
  Benjamin Mitchell, Partha Mukherjee and Youakim Badr
- Community based Discussion Detection on Code Switched Social Media Content
  Prarthana Padia, Lucia Falzon, Aaron Harwood, Shanika Karunasekera and Michelle Vanni
- Group Formation Theory at Multiple Scales
  Casey Doyle, Asmeret Naugle, Michael Bernard, Kiran Lakkaraju, Robert Kittinger, Matthew Sweitzer and Fred Rothganger
- Bot Impacts on Public Sentiment and Community Structures: Comparative Analysis of Three Elections in the Asia-Pacific
  Joshua Uyheng and Kathleen M. Carley

**Political Influence 2**
Moderators: Ibrahim Rahhal, Catherine King, and Aman Tyagi
- Data Collection and Sensemaking from Telegram: A Case Study of Ukrainian Political Leaders Channels and Chat Groups
  Tuja Khaund, Mainuddin Shaik and Nitin Agarwal
- A Structural Approach for Classifying Russian Social Media Narratives in the Baltic Region
  Timur Chabuk, Adam Jonas and Sue Kase
- Social Network Analysis of Gobekli Tepe: Belief Propagation in 10th Millennium BC
  Niloufar Bagheri-Jebelli and William Kennedy
- The Russian Strategy for Interference and Influence on Reddit: An Analysis of Infiltrating New Social Media Platforms
  Christine Sowa and Kathleen Carley

**Government Session**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>2:50pm – 3:00pm</td>
<td>BREAK</td>
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</table>
| 3:00pm – 4:30pm | **Keynote:** Barry G. Silverman, PhD  
Professor Emeritus, Electrical and Systems Engineering, University of Pennsylvania |
<p>| 4:30pm – 7:30pm | <strong>Virtual Reception; Posters, Challenge Voting</strong>                                 |</p>
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<tr>
<td>8:45am – 9:00am</td>
<td>TEXTUAL ANALYSIS</td>
<td>Welcome</td>
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<td><strong>Moderators:</strong> Hanin Alhaddad, Mainuddin Shaik, and Muhammad Nihal Hussain</td>
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<td></td>
<td>- Artifacts of Crisis: Textual Analysis of Euromaidan</td>
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<td>(Thomas Magelinski, Zachary Stine, Thomas Marcoux, Nitin Agarwal and Kathleen M. Carley)</td>
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<td>- MDR Cluster-Debias: A Nonlinear Word Embedding Debiasing Pipeline</td>
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<td>(Yuhao Du and Kenneth Joseph)</td>
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<td>- Experiments with One-Class SVM and Word Embeddings for Document Classification</td>
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<td>(Jingnan Bi, Hyoungah Kim and Vito D'Orazio)</td>
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<td>- Understanding Colonial Legacy and Environmental Issues in Senegal through Language Use</td>
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<td>(Kamwoo Lee, Jeanine Braithwaite and Michel Atchikpa)</td>
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<td>9:00am – 10:30am</td>
<td>COVID 0</td>
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<td>Knight Centers and Covid-19</td>
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<td>- Talk 1: Intro to Special Session - Dr. Kathleen M. Carley</td>
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<td>- Talk 2: David Broniatowski &amp; Nicolas Velasquez - COVID 19: hate speech, civil liberties, and political mobilization on digital platforms</td>
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<td>- Talk 4: Kathleen M. Carley - The Disinformation Playground</td>
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<td>10:30am – 11:00am</td>
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<td>11:00am – 12:30pm</td>
<td>Government Sponsor Panel</td>
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<td><strong>Panelists:</strong></td>
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<td>Laurie Fenstermacher AFRL</td>
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<td>Edward Palazzolo ARO</td>
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<td>Rebecca Goolsby ONR</td>
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<td>Brian Kettler DARPA</td>
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<td>Dan Cosley NSF</td>
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<td>Paul Tandy DTRA</td>
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<td>Kathleen Larson AFOSR</td>
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<td>12:30pm – 2:00pm</td>
<td>LUNCH BREAK</td>
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**COVID 1**

**Moderators:** Shashank Uttrani, Thomas Magelinski, and Joshua Uyheng

- Non-Pharmaceutical Herd Immunity using Homemade Masks  
  **Dale Brearcliffe**

- Preliminary Evaluation of Global Mass Gatherings Suspension in Saudi Arabia during the COVID-19 Pandemic  
  **Sultanah Alshammari, Waleed Almutiry, Harsha Gwalani and Saeed Algarni**

- The Ebb and Flow of the COVID-19 Misinformation Themes  
  **Thomas Marcoux, Esther Mead and Nitin Agarwal**

- The Coronavirus is a Bioweapon: Analysing Coronavirus Fact-Checked Stories  
  **Lynnette Ng and Kathleen Carley**

**Graduate Consortium**

**Mentor Lunch**
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<tr>
<th>Time</th>
<th>Session</th>
<th>Moderators</th>
<th>Presentations</th>
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| 2:00pm –   | Human Modeling 2  | Mainuddin Shaik, Tuja Khaund, and Esther Mead | - Learning Behavioral Representations from Wearable Sensors Nazgol Tavabi, Homa Hosseinmardi, Jennifer Villatte, Andres Abeliuk, Shrikanth Narayanan, Emilio Ferrara and Kristina Lerman  
- Predicting Cognitive Control in Older Adults using Deep Learning and EEG Data Alina Vereshchaka, Fan Yang, Abhijit Suresh, Ibrahim L. Olokodana and Wen Dong  
- Predicting Student Flight Performance with Multimodal Features Zerong Xi, Olivia Newton, Greg McGowin, Gita Sukthankar, Steve Fiore and Kevin Oden  
- Modeling decisions from experience among frequent and infrequent switchers via strategy-based and instance-based models Neha Sharma and Varun Dutt |
| 3:30pm –   | COVID 2                                     | Daniele Bellutta, Catherine King, and Ibrahim Rahhal | - Cultural Convergence: Insights into the behavior of misinformation networks on Twitter Liz McQuillan, Erin McCweeney, Alicia Bargar and Alexander Ruch  
- Investigating dynamics of COVID-19 spread and containment with agent-based modeling Amirsalaran Rajabi, Alexander Mantzaris, Ece Mutlu and Ivan Garibay  
- A Context-Aware Social Distancing Nudge for Public Health in Response to COVID-19 Pandemic Shuyuan Mary Ho, Md Shamim Seraj, Kevin Yee, Xiamen Liu and Gordon Erlebacher  
- Modeling, Estimating, and Minimizing Average New Infections of COVID-19 Based on Information Theory and Social Networks Hussein Al-Hamdani, Mustafa Alassad, Nitin Agarwal and Seshadri Mohan |
| 4:00pm –   | Agent Modeling 2  | Daniele Bellutta, Christine Sowa, and Catherine King | - Utilizing Python for Agent-based Modeling: The Mesa Framework Jacqueline Kazli, David Masad and Andrew Crooks  
- Effects of Assortativity on Consensus Formation with Heterogeneous Agents Ece Mutlu and Ivan Garibay  
- The Grey Spot of Twitter Bot Moderation: Studying the traits of accounts who survived amongst the batch of suspended accounts Pujan Paudel and Andrew Sung  
- Multi-cause Discrimination Analysis Using Potential Outcomes Wen Huang, Yongkai Wu and Xintao Wu |
| 5:30pm     | COVID 3                                     | Aman Tyagi, Shahan Ali Memon, and Yigeng Zhang | - Medical Literature Mining and Retrieval in a Conversational Setting Souvik Das, Sougata Saha and Rohini Srinjari  
- Analytical Study of the Non-pharmaceutical Public Health Interventions to Control the Novel Coronavirus Disease 2019 (COVID-19) Aseel Addawood, Sultanah Alshammari, Amal Alqahtani and Amal Almansour  
- Modeling the Absence of Framing Effect among Indian and US populations in an Experience-based COVID-19 Disease Problem Shashank Uttrani, Neha Sharma and Varun Dutt |
| 3:30pm     | BREAK                                      |                                      |                                                                                                                |
| 5:30pm     | Graduate Consortium                       |                                      |                                                                                                                |
## Conference Day 3

### Time | Session 1 | Session 2 | Session 3
--- | --- | --- | ---
8:45am – 9:00am | Welcome | Welcome |  
9:00am – 10:30am | **Information Operation**  
**Moderators:** Ramon Villa-Cox, Uzoamaka Ezeakunne and Pegah Hozhabrierdi  
- Identifying Influencers by Countries in Twittersphere  
  Rong Pan, Guanqi Fang and Aleksey Panasyuk  
- Strategic Information Operation in YouTube: The case of White Helmets  
  Nazim Choudhury, Kin Wai NG and Adriana Iamnitchi  
- Optimizing Attention-Aware Opinion Seeding Strategies  
  Charles Martin, Dana Warmsley and Samuel Johnson  
- On Countering Disinformation With Caution: Effective Inoculation Strategies and Others That Backfire Into Community Hyper-Polarization  
  Amirarsalan Rajabi, Chathika Gunaratne, Alexander V. Mantzaris and Ivan Garibay | **COVID 4**  
**Moderators:** Mihovil Bartulovic, Talha Oz, and Adewale Obadimu  
- Cognitive Modeling for Computational Epidemiology  
  Peter Pirolli, Archna Bhatia, Konstantinos Mitsopoulos, Christian Lebiere and Mark Orr  
- Modeling Protester Orchestration through Connective Action: A COVID-19 Lockdown Protest Case Study  
  Billy Spann, Nitin Agarwal, Oluwaseun Johnson and Esther Mead  
- Systems Thinking and Modeling in Social Networks: A Case Study of Coronavirus Conspiracy Theories Challenges in Twitter network  
  Mustafa Alassad, Muhammad Nihal Hussain and Nitin Agarwal |  
10:30am – 10:50am | BREAK |  
10:50am – 12:20pm | **Health**  
**Moderators:** Shashank Uttrani, Thomas Magelinski, and Joshua Uyheng  
- Characterizing Sociolinguistic Variation in the Competing Vaccination Communities  
  Shahan Ali Memon, Aman Tyagi, David R. Mortensen and Kathleen M. Carley  
- Critical spatial clusters for vaccine preventable diseases  
  Jose Cadena, Achla Marathe and Anil Kumar Vullikanti  
- Deploying System Dynamics Models for Disease Surveillance in the Philippines  
  Joshua Uyheng, Christian E. Pulmano and Ma. Regina Justinia Estuar  
- The Rise and Fall of Humanitarian Citizen Initiatives: A simulation-based approach  
  Erika Frydenlund, Jose Padilla, Hanne Haaland and Hêgo Wallevik | **COVID 5**  
**Moderators:** Mustafa Alassad, Mainuddin Shaik, and Esther Mead  
- Exploring the Impact of Mandatory Remote Work during the COVID-19 Pandemic  
  Talha Oz and Andrew Crooks  
- Network-Based Analysis of Early Pandemic Mitigation Strategies, Solutions, and Future Directions  
  Pegah Hozhabrierdi, Raymond Zhu, Maduakolam Onyewu and Sucheta Soundarajan  
- Utilizing Topic Modeling and Social Network Analysis to Identify and Regulate Toxic COVID-19 Behaviors on YouTube  
  Adewale Obadimu, Esther Mead, Tuja Khaund, Maryetta Morris and Nitin Agarwal |
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<tr>
<td>8:30am – 11:30am</td>
<td><strong>High Dimensional Network Analysis</strong>&lt;br&gt;Jeff Reminga and Kathleen M. Carley&lt;br&gt;Moderators: Uzoamaka Ezeakunne, Ramon Villa-Cox, and Pegah Hozhabrierdi</td>
<td><strong>YouTube Data Analytics: Revealing Computational Propaganda Techniques and Tactics</strong>&lt;br&gt;Nitin Agarwal, Muhammad Nihal Hussain, Thomas Marcoux, and Joseph Kready&lt;br&gt;Moderators: Ninareh Mehrabi, Lynnette Hui Xian Ng, and Shashank Uttrani</td>
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<td>11:30am – 12:00pm</td>
<td><strong>BREAK</strong></td>
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**Thursday October 22, 2020 - Tutorials and Closing**

**Registered Participants will be emailed a link from their instructors on how to connect.**
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<td>12:00pm – 3:00pm</td>
<td>Facebook and Reddit Data in ORA&lt;br&gt;<em>Christine Sowa and Kathleen M. Carley</em>&lt;br&gt;Moderators: Hanin Alhaddad, Mihovil Bartulovic, and Yigeng Zhang</td>
<td>Networked Time Series Analysis and Clustering&lt;br&gt;<em>Mihovil Bartulovic and Tom Magelinski</em>&lt;br&gt;Moderators: Catherine King, Ibrahim Rahhal, and Aman Tyagi</td>
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<td>3:00pm – 3:30pm</td>
<td><strong>BREAK</strong></td>
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<td>3:30pm – 6:30pm</td>
<td>Dynamic and Spatial Networks&lt;br&gt;<em>Rick Carley</em>&lt;br&gt;Moderators: Thomas Magelinski, Joshua Uyheng, and Daniele Bellutta</td>
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<tr>
<td>6:30pm – 7:30pm</td>
<td><strong>Final Remarks and Awards</strong></td>
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