Homa Hosseinmardi

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Research topics	Computational Social Science, Data Science, Network Science, Online Platforms	
Positions Held	2020- present	Senior Research Associate, Computational Social Science Lab, University of Pennsylvania
	2019-2020	Postdoctoral Research Fellow, Computational Social Science Lab, University of Pennsylvania
	2017-2019	Postdoctoral Research Fellow, Information Sciences Institutes, University of Southern California
	2015-2017	Research Scientist, Danaher Labs
Education	2012-2015	PhD, Computer Science, University of Colorado Boulder Thesis: *Multimodal Labeling and Characterization of Social Network Data for Detection and Prediction of Cyberbullying*

Work in Progress

H. Hosseinmardi, D. Rothschild, D. J. Watts "Examining Mainstream Media Coverage of the 2020 Democratic Candidates".

D. Muise, **H. Hosseinmardi**, D. Rothschild, M. Mobius, D. J. Watts, "A Large-scale Cross-platform Analysis of News Consumption".

H. Hosseinmardi, Samar Haider, D. Rothschild, M. Mobius, D. J. Watts, "Diversity or Uniformity? Content Overlap in Online News".

H. Hosseinmardi, A. Ghasemian, D. Rothschild, D. J. Watts, "Zooming into Dark Corners of YouTube".

H. Hosseinmardi, D. Rothschild, D. J. Watts, "News Consumption Shift across Platforms".

H. Hosseinmardi, D. Rothschild, D. J. Watts, "Separated Reality: Large Scale Study of TV News Narratives".

Publications

H. Hosseinmardi, A. Ghasemian, A. Clauset, D. Rothschild, Markus Mobius, D. J. Watts, "Examining the consumption of radical content on YouTube." Proceedings of the National Academy of Sciences 118, no. 32, 2021.

A. Ghasemian, **H. Hosseinmardi**, A. Galstyan, E. M. Airoldi, and A. Clauset. "Stacking models for nearly optimal link prediction in complex networks." Proceedings of the National Academy of Sciences 117, no. 38, 2020.

N. Tavabi, **H. Hosseinmardi**, J. L. Villatte, A. Abeliuk, S. Narayanan, E. Ferrara, and K. Lerman. "Learning Behavioral Representations from Wearable Sensors." In International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation, pp. 245-254. Springer, Cham, 2020.

H. Kao, S. Yan, **H. Hosseinmardi**, S. Narayanan, K. Lerman, and Emilio Ferrara. "User-Based Collaborative Filtering Mobile Health System." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 4, no. 4, 1-17, 2020.

S. Yan, **H. Hosseinmardi**, H. T. Kao, S. Narayanan, K. Lerman, E. Ferrara, "Affect Estimation with Wearable Sensors." Journal of Healthcare Informatics Research, 1-34, 2020.

S. Yan, **H. Hosseinmardi**, H. T. Kao, S. Narayanan, K. Lerman, E. Ferrara, "Estimating individualized daily self-reported affect with wearable sensors." In 2019 IEEE International Conference on Healthcare Informatics (ICHI), pp. 1-9. IEEE, 2019.

H. T. Kao, S. Yan, D. Huang, N. Bartley, **H. Hosseinmardi**, E. Ferrara, "Understanding Cyberbullying on Instagram and askfm via Social Role Detection." In Companion Proceedings of the 2019 World Wide Web Conference, pp. 183-188. 2019.

H. T. Kao, **H. Hosseinmardi**, S. Yan, M. Hasan, S. Narayanan, K. Lerman and E. Ferrara, "Discovering Latent Psychological Structures from Self-report Assessments of Hospital Workers." International Conference on Behavioral, Economic, and SocioCultural Computing (BESC2018) (best paper award).

A. Ghasemian, **H. Hosseinmardi**, and A. Clauset, "Evaluating Overfit and Underfit in Models of Network Community Structure." IEEE Transactions on Knowledge and Data Engineering 32, no. 9 (2019): 1722-1735.

P. Goyal, **H. Hosseinmardi**, E. Ferrara, A. Galstyan, "Capturing edge attributes via network embedding." IEEE Transactions on Computational Social Systems 5, no. 4 (2018): 907-917.

P. Goyal, **H. Hosseinmardi**, E. Ferrara, A. Galstyan, "Embedding networks with edge attributes." In Proceedings of the 29th on Hypertext and Social Media, pp. 38-42, 2018.

R. Ibn Rafiq, **H. Hosseinmardi**, R. Han, Q. Lv, S. Mishra, "Scalable and timely detection of cyberbullying in online social networks." In Proceedings of the 33rd Annual ACM Symposium on Applied Computing, pp. 1738-1747. 2018.

H. Hosseinmardi, R. Ibn Rafiq, R. Han, S. Mishra, Q. Lv, "Prediction of Cyberbullying Incidents in a Media-based Social Network." In 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), pp. 186-192. IEEE, 2016.

H. Hosseinmardi, R. Ibn Rafiq, S. A. Mattson, R. Han, S. Mishra, Q. Lv, "Analyzing Factors Impacting Revining on the Vine Social Network." In International Conference on Social Informatics, pp. 17-32. Springer, Cham, 2015.

R. Ibn Rafiq, H. Hosseinmardi, R. Han, Q. Lv, S. Mishra, and S. A. Mattson. "Careful what you share in six seconds: Detecting cyberbullying instances in Vine." In 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), pp. 617-622. IEEE, 2015.

R. Ibn Rafiq, **H. Hosseinmardi**, S. A. Mattson, R. Han, Q. Lv, S. Mishra, "Analysis and detection of labeled cyberbullying instances in Vine, a video-based social network." Social network analysis and mining 6, no. 1, 1-16, 2016.

H. Hosseinmardi, R. Ibn Rafiq, R. Han, S. Mishra, Q. Lv, "Analyzing Labeled Cyberbullying Incidents on the Instagram Social Network." In International conference on social informatics, pp. 49-66. Springer, Cham, 2015.

H. Hosseinmardi, N. Correll, and R. Han, "Distributed Spatio-Temporal Gesture Recognition in Sensor Arrays." ACM Transactions on Autonomous and Adaptive Systems (TAAS) 10, no. 3, 1-19, 2015.

H. Hosseinmardi, A. Ghasemian, R. Han, Q. Lv, and S. Mishra, "Towards Understanding Cyberbullying Behavior in a Semi-anonymous Social Network." In 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2014), pp. 244-252. IEEE, 2014.

H. Hosseinmardi, R. Ibn Rafiq, S. Li, Z. Yang, R. Han, Q. Lv and S. Mishra, "A Comparison of Common Users across Instagram and ask.fm to Better Understand Cyberbullying." In 2014

IEEE Fourth International Conference on Big Data and Cloud Computing, pp. 355-362. IEEE, 2014.

S. Ma, **H. Hosseinmardi**, N. Farrow, R. Han, and N. Correll, "Establishing Multicast Groups in Computational Robotic Materials." In 2012 IEEE International Conference on Green Computing and Communications, pp. 311-316. IEEE, 2012.

H. Hosseinmardi, R. Han, and N. Correll, "Bloom Filter-Based Ad Hoc Multicast Communication in Cyber-Physical Systems and Computational Materials." In International Conference on Wireless Algorithms, Systems, and Applications, pp. 595-606. Springer, Berlin, Heidelberg, 2012.

H. Hosseinmardi, and F. Lahouti, "Multicast lifetime maximization using network coding: A cross-layer approach." In 2008 24th Biennial Symposium on Communications, pp. 1-4. IEEE, 2008.

H. Hosseinmardi, and F. Lahouti, "Online multicasting using network coding in energy constrained wireless ad hoc networks." In 2008 3rd International Symposium on Wireless Pervasive Computing, pp. 545-549. IEEE, 2008.

Preprints	**H. Hosseinmardi**, A. Ghasemian, K. Lerman, and E. Ferrara, "Tensor Regression: A Supervised Framework for Human Behavioral Data Mining and Prediction".
	H. Hosseinmardi, E. Ferrara, K. Lerman, "Discovering Hidden Structure in High Dimensional Human Behavioral Data via Tensor Factorization." Hetronam, WSDM 2018.
Professional Services	Co-founder of CU CyberSafety Research Center and workshop series on Computational Methods for CyberSafety.
	Organizing the First International Workshop on Computational Methods for CyberSafety, CIKM 2016.
	Technical Program Committee Co-chair, International Workshop on Computational Methods for CyberSafety, WWW 2017, 2018, 2020.
	Workshop Co-chair, The Fourth Workshop on Computational Methods in Online Misbehavior, WWW 2019.
	Journal review: PNAS, Social Science Journal, PLOS ONE, and Future Generation Computer Systems Journal, Computers in Human Behavior Journal.
	Program committee and External reviewer: ICWSM, NetSci, IC2S2, ASONAM, WWW, ICDM, SDM, WiDS
Recent Talks	International Conference on Politics and Computational Social Science (IC2S2) (August 2021) Beyond Misinformation Workshop (August 2021) International Conference on Computational Social Science (IC2S2) (July 2021) Networks 2021 (July 2021) International Conference on Computational Social Science (IC2S2) (July 2020)
Teaching and Mentorship	*Gust lectures* - Computer Science—Probabilistic Models of Human and Machine Intelligence (grad, Fall 2015) - Computer Science—Fundamentals of Human Computer Interaction (undergrad, Spring 2014) - Danaher Labs, Data Science bootcamps (Spring 2016, Fall 2017)

Mentorship
- (UGs) Josh Ludan, Yue Chen, Misty Liao, Seven Fandozzi, Vivienne Chen; (MSs) Rachel S. M. Leong, Zhangyi Fan, Xiaonan Liu, Keith Golden, Kailun Li; (PhDs) Hsien-Te Kao, Shen Yan, Rahat Ibn Rafigh
- Summer School on Methods for Computational Social Science, Summer 2018.

Awards   University of Colorado Boulder, Department of Computer Science Outstanding Research Award, May 2015.
University of Colorado Boulder, Department of Computer Science Graduate Student Fellowship, Fall 2012.

Other Experiences   Analysis of the mobility data of Covid-19 for the City of Philadelphia: Optimal Interventions to Control COVID-19 in Networked Populations, J. F. Barreras, V. Preciado, H. Hassani, D. J. Watts, H. Hosseinmardi, A. Ghasemian, M. Whiting.

Examining video moderation in YouTube platform, D. J. Watts, H. Hosseinmardi, N. C. Dias, L. Yphtach.