Benjamin D. Horne

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Education

Rensselaer Polytechnic Institute Ph.D. in Computer Science - Dissertation: Robust News Veracity Detection	Troy, NY 2014 – 2020
Union University B.S. in Computer Science, Minor in Mathematics	Jackson, TN 2010 – 2014
Union University B.S. in Business Administration	Jackson, TN 2010 – 2014
Vanguard-Sentinel Career & Technology Center I.T. and Network Fundamentals	Fremont, OH 2008 – 2010

Academic and Research Appointments

University of Tennessee Knoxville	Knoxville, TN
Assistant Professor, School of Information Sciences	2020 – Present
Rensselaer Polytechnic Institute	Troy, NY
Graduate Research Assistant, Computer Science	Fall 2014, Fall 2017 - Spring 2020
NSF GK-12 Teaching Fellow	Summer 2015 - Fall 2016
Graduate Teaching Assistant, Computer Science	Spring 2015
U.S. Army Research Laboratory	Adelphi, MD
Visiting Graduate Researcher, Network Science Research Laboratory	Summer 2017
Cornell University	Ithaca, NY
NSF Undergraduate Researcher, Information Sciences	Summer 2013
Texas Tech University	Lubbock, TX
NSF Undergraduate Researcher, Computer Science	Summer 2012

Industry Experience

Steele Martin Jones and Company	Jackson, TN
I.T. Administrator	Summer 2011 - Spring 2014
Home Medical Products Inc	Jackson, TN
I.T. Technician	Spring 2011 – Summer 2011

Publications

Total citations (Google Scholar December 2022): 1206

H-Index (Google Scholar December 2022): 15

Dataset Downloads (Dataverse December 2022): 16,120

Notes: I publish across multiple disciplines, each with different practices in terms of author order and venue importance. For example, in computing, students are first authors, while the lab leader is the last author.

• * indicates UTK student authors at the time of submission

- IF indicates Impact Factor of journal at the time of acceptance, if known
- AR indicates acceptance rate of conference, if known
- ABDC Rating indicates rating (A*, A, B, C) from Australian Business Deans Council, if applicable.

Book Chapters:

BC1. Fake News Starts with the Title

Chapter 9. "Language That Manipulates: Politics, Advertising, and Doublespeak" in Language Awareness: Readings for College Writers. 13th Edition by P. Eschholz, A. Rosa, and V. Clark. Macmillan Learning 2020 Benjamin D. Horne

Journal Publications (Peer-Reviewed):

- J1. Forking Paths of Cultural Complexity: A Case Study of Research Paradigms Advances in Complex Systems (ACS) 2022 (IF: 1.23) Joshua Borycz, Benjamin D. Horne, and R. Alexander Bentley
- J2. Monitoring event-driven dynamics on Twitter: A case study in Belarus Springer Nature Social Sciences (SNSS) 2022 Natalie M. Rice, Benjamin D. Horne, Catherine Luther, Joshua Borycz, Suzie L. Allard, Damian J. Ruck, Michael Fitzgerald, Oleg Manaev, Brandon C. Prins, Maureen Taylor, and R. Alexander Bentley
- J3. The Reasoning Behind Fake News Assessments: A Linguistic Analysis AIS Transactions on Human-Computer Interaction (THCI) 2022 (ABDC Rating: A) Lydia Manikonda, Dorit Nevo, Benjamin D. Horne, Clare Arrington, and Sibel Adalı
- J4. How Topic Novelty Impacts the Effectiveness of News Veracity Interventions Communications of the ACM (CACM) 2022 (ABDC Rating: A, IF: 4.65) Dorit Nevo and Benjamin D. Horne
- J5. Partisanship over security: Public narratives via Twitter on Foreign Interferences in the 2016 and 2020 U.S. Presidential Elections

First Monday 2021 (ABDC Rating: B, IF: 1.19)

Catherine A. Luther, Benjamin D. Horne, and Xu Zhang

- J6. Tailoring Heuristics and Timing AI Interventions for Supporting News Veracity Assessments Computers in Human Behavior Reports (CHB Reports) 2020 (ABDC Rating: A, IF: 6.83) Benjamin D. Horne, Dorit Nevo, Sibel Adalı, Lydia Manikonda, Clare Arrignton Media Coverage: IEEE Spectrum, RPI News, ACM TechNews, Electronics360, Tech Xplore, Scienmag, Newswise, The Next Web, Tech Monitor
- J7. Effects of Priming Messages to Decrease Negativity in Online Learning Environments APA Scholarship of Teaching and Learning in Psychology 2020 Hung-Tao Chen, Benjamin D. Horne, Dan Florrel, Megan Thomas
- J8. Robust Fake News Detection Over Time and Attack ACM Transactions on Intelligent Systems and Technology (TIST) 2019 (IF: 4.65) Benjamin D. Horne, Jeppe Nørregaard, and Sibel Adalı
- J9. Uncertainty-based False Information Propagation in Social Networks ACM Transactions of Social Computing (TSC) 2019 Jin-Hee Cho, Scott Rager, John O'Donovan, Sibel Adalı, and Benjamin D. Horne
- J10. Recognizing Experts on Social Media: A Heuristics Based Approach ACM SIGMIS Database: The Database for Advances in Information Systems 2018 Benjamin D. Horne, Dorit Nevo, and Sibel Adalı

Refereed Computing Conferences (Peer-Reviewed):

Note: Conference proceedings are considered top-tier publication venues for computing. These conferences are heavily refereed and highly selective venues for top archival research, often exceeding many journals in their selectivity, visibility, and impact.

C1. Characterizing YouTube and BitChute Content and Mobilizers During U.S. Election Fraud Discussions on Twitter

14th ACM Web Science Conference (WebSci) 2022 (AR: 32%)

Matthew C. Childs*, Milo Trujillo, Cody Buntain, and Benjamin D. Horne

Media Coverage: Reuters Special Report

- **C2.** Local News Online and COVID in the U.S.: Relationships among Coverage, Cases, Deaths, and Audience The 16th International Conference on Web and Social Media (ICWSM) 2022 (AR: 8%) Kenneth Joseph, Benjamin D. Horne, Jon Green, John P. Wihbey
- C3. What is BitChute? Characterizing the "Free Speech" Alternative to YouTube 31st ACM Conference on Hypertext and Social Media (HT'20) 2020 (AR: 29%) Milo Trujillo, Mauricio Gruppi, Cody Buntain, and Benjamin D. Horne Media Coverage: Mashable, Business Insider, YLE, Reuters Special Report Other: Cited on Wikipedia pages for Bitchute and WebTorrent (01/2021)
- C4. Trustworthy Misinformation Mitigation with Soft Information Nudging IEEE Conference on Trust, Privacy & Security in Intelligent Systems (TPS) 2019 Benjamin D. Horne, Mauricio Gruppi, and Sibel Adalı
- C5. Different Spirals of Sameness: A Study of Content Sharing in Mainstream and Alternative Media The 13th International Conference on Web and Social Media (ICWSM) 2019 (AR: 17%) Benjamin D. Horne, Jeppe Nørregaard, and Sibel Adalı
- C6. Rating Reliability and Bias in News Articles: Does AI Assistance Help Everyone? The 13th International Conference on Web and Social Media (ICWSM) 2019 (AR: 17%) Benjamin D. Horne, Dorit Nevo, John O'Donovan, Jin-Hee Cho, and Sibel Adalı
- C7. Identifying the Social Signals that Drive Online Discussions: A Case Study of Reddit Communities International Conference on Computer Communications and Networks (ICCCN) 2017 (AR: 30%) Benjamin D. Horne, Sibel Adalı, and Sujoy Sikdar
- C8. From Sports to Science: Using Basketball Analytics to Broaden the Appeal of Math and Science Among Youth MIT Sloan Sports Analytics Conference (SSAC) 2017

John F. Drazan, Amy K. Loya, Benjamin D. Horne, and Ron Eglash

Best Research Paper Award (\$10,000 prize)

Media Coverage: NBA Enrichment Program, Denver Stiffs Podcast, RPI News, Fansided, SB Nation, Vice Sports, Harvard Sports Analytics Blog

- **C9.** Impact of message sorting on access to novel information in networks Conference on Advances in Social Networks Analysis and Mining (ASONAM) 2016 Benjamin D. Horne, Sibel Adalı, and Kevin Chan
- C10. Expertise in social networks: how do experts differ from other users?

 The International Conference on Web and Social Media (ICWSM) 2016 (AR: 17%)

 Benjamin D. Horne, Dorit Nevo, Jesse Freitas, Heng Ji, and Sibel Adalı

Refereed Workshops and Demo Tracks (peer-reviewed):

W1. Tell Me Who Your Friends Are: Using Content Sharing Behavior for News Source Veracity Detection MEDIATE Workshop at ICWSM 2021 Mauricio Gruppi, Benjamin D. Horne, and Sibel Adalı W2. From Tweeting About News to Creating News Around Tweets: Characterizing Tweets Embedded in News Articles

MEDIATE Workshop at ICWSM 2021

Mauricio Gruppi, Sibel Adalı, Matthew Salemi, and Benjamin D. Horne

W3. Do All Good Actors Look The Same? Exploring News Veracity Detection Across The U.S. and The U.K. ICWSM Data Challenge on Safety 2020

Benjamin D. Horne, Mauricio Gruppi, and Sibel Adalı

W4. An Exploration of Verbatim Content Republishing by News Producers The International Workshop on News and Public Opinion (NECO) at ICWSM 2018 Benjamin D. Horne and Sibel Adalı

W5. An Exploration of Misinformation Classification in Brazil and The U.S.

The International Workshop on News and Public Opinion (NECO) at ICWSM 2018
Benjamin D. Horne, Mauricio Gruppi, and Sibel Adalı

W6. Assessing the News Landscape: A Multi-Module Toolkit for Evaluating the Credibility of News The 27th ACM International Web Conference (WWW) Demo Track 2018 Benjamin D. Horne, Will Dron, Sara Khedr, and Sibel Adalı

W7. This Just In: Fake News Packs a Lot in Title, Uses Similar, Repetitive Content in Text Body, More Similar to Satire than Real News

The International Workshop on News and Public Opinion (NECO) at ICWSM 2017 Benjamin D. Horne and Sibel Adalı

Media Coverage: Science News

W8. The Impact of Crowds on News Engagement: A Reddit Case Study The International Workshop on News and Public Opinion (NECO) at ICWSM 2017 Benjamin D. Horne and Sibel Adalı

W9. Exploring the Creative Destruction of 3D Printing Through an Analysis of Intellectual Property Issues Emerging Researcher National (ERN) Conference 2013 Stephanie M. Santoso, Benjamin D. Horne, and Stephen B. Wicker

Published Datasets (peer-reviewed):

D1. The MeLa BitChute Dataset

The 16th International Conference on Web and Social Media (ICWSM) 2022 https://doi.org/10.7910/DVN/KRD1VS

Milo Trujillo, Mauricio Gruppi, Cody Buntain, and Benjamin D. Horne

D2. NELA-Local: A Dataset of U.S. Local News Articles for the Study of County-level News Ecosystems The 16th International Conference on Web and Social Media (ICWSM) 2022 https://doi.org/10.7910/DVN/GFE66K

Benjamin D. Horne, Mauricio Gruppi, Kenneth Joseph, Jon Green, John P. Wihbey, and Sibel Adalı

D3. NELA-GT-2018: A Large Multi-Labelled News Dataset for the Study of Misinformation in News Articles The 13th International Conference on Web and Social Media (ICWSM) 2019 https://doi.org/10.7910/DVN/ULHLCB Jeppe Nørregaard, Benjamin D. Horne, and Sibel Adalı

D4. Sampling the News Producers: A Large News and Feature Data Set for the Study of the Complex Media Landscape

The 12th International Conference on Web and Social Media (ICWSM) 2018

https://doi.org/10.7910/DVN/ZCXSKG

Benjamin D. Horne, Sara Khedr, and Sibel Adalı

Technical Reports and White Papers:

TR1. A Psycho-linguistic Analysis of BitChute: A Metadata Supplement to The MeLa BitChute Dataset Technical Report 2022

https://doi.org/10.7910/DVN/KRD1VS

Benjamin D. Horne

TR2. NELA-GT-2021: A Large Multi-Labelled News Dataset for the Study of Misinformation in News Articles Technical Report 2022

https://doi.org/10.7910/DVN/RBKVBM

Mauricio Gruppi, Benjamin D. Horne, and Sibel Adalı

TR3. NELA-GT-2020: A Large Multi-Labelled News Dataset for the Study of Misinformation in News Articles Technical Report 2021

https://doi.org/10.7910/DVN/CHMUYZ

Mauricio Gruppi, Benjamin D. Horne, and Sibel Adalı

TR4. NELA-GT-2019: A Large Multi-Labelled News Dataset for the Study of Misinformation in News Articles Technical Report 2020

https://doi.org/10.7910/DVN/O7FWPO

Mauricio Gruppi, Benjamin D. Horne, and Sibel Adalı

Other Conferences, Workshops, and Abstracts (lightly peer-reviewed):

- c1. Automated Parsing of Personal Identity Facets for a Collection of Visual Images International Conference on Dublin Core and Metadata Applications (DC) 2022 Brian Dobreski, Melissa Resnick, and Benjamin D. Horne
- c2. Russia Public Diplomacy Efforts to Influence Neighbors: Media Messaging Supports Hard Power Projection 72nd Annual International Communication Association Conference (ICA) 2022
 Maureen Taylor, Natalie Rice, Oleg Manaev, Catherine Luther, Suzie Allard, Michael Fitzgerald, Brandon Prins, Joshua Borycz, R. Alexander Bentley, and Benjamin D. Horne
- c3. Traditional and Social Media Usage and Pro-Russian versus Anti-Russian Attitudes in Belarus and Ukraine 72nd Annual International Communication Association Conference (ICA) 2022 Catherine Luther, Brandon Prins, Oleg Manaev, Natalie Rice, Maureen Taylor, Suzie Allard, Michael Fitzgerald, Benjamin D. Horne, R. Alexander Bentley, and Joshua Borycz
- c4. Role of Social Affinity on News Coverage of Disasters: Implications for Disaster Donations (Abstract) Decision Sciences Institute (DSI) Annual Conference 2021
 Trilce Encarnacion, Jose Holguin-Veras, and Benjamin D. Horne
- c5. Hateful YouTube: Characterizing the Social Video-hosting Platform BitChute (Abstract) 6th International Conference on Computational Social Science (IC2S2) 2020 Milo Trujillo, Mauricio Gruppi, Cody Buntain, and Benjamin D. Horne
- c6. Effects of Priming on Online Discussion Behavior (Abstract) The Human Factors and Ergonomics Society (HFES) International Annual Meeting 2018 Hung-Tao Chen and Benjamin D. Horne
- c7. Models for Predicting Community-Specific Interest in News Articles The 37th Military Communications Conference (MILCOM) 2018 Benjamin D. Horne, William Dron, and Sibel Adalı
- c8. The Multi-Domain Integration and Correlation Engine
 The 37th Military Communications Conference (MILCOM) 2018
 Willaim Dron, Andrew Hunter, Ali Sydney, Siddharth Pal, John Hancock, Lisa Scott, Tarek Abdelzaher,
 Jiawei Han, Sibel Adalı, and Benjamin D. Horne

Other Significant Research Dissemination (blogs, essays, op-eds, etc.):

O1. Is Automated Content Moderation Going to Solve Our Misinformation Problems? Information Matters Vol. 3 Issue 1 2023
Benjamin D. Horne

O2. Fake News Starts with the Title

Medium Post 2017 - Views: 3,500 Reads: 1,000

Benjamin D. Horne

Funding

Note: Co-PIs at UTK unless stated otherwise

External Funding:

F1. Minerva Grant, United States Department of Defense, Office of Naval Research

Title: Monitoring the Content and Measuring the Effectiveness of Russian Disinformation and Propaganda Campaigns in Selected Former Soviet Union States

PI: Catherine Luther

Co-PI: Benjamin D. Horne, Suzie Allard, Alex Bentley, Michael Fitzgerald, Brandon Prins, Maureen Taylor (University of Technology Sydney)

Funding: \$1.6 Million

Duration: 2019 - 2023 Note: I was added as a Co-PI in 2021

Related Publications: J2. c2. c3.

Related Talks: T6. T3.

Awards & Honors

Robert McNaughton Prize	
Outstanding Ph.D. graduate in Computer Science at RPI	2020
Best Research Paper Award (\$10,000 prize) MIT Sloan Sports Analytics Conference	2017
Outstanding Research Poster Award	
RPI Graduate Research Symposium	2017
Academic Excellence Medal in Computer Science	
Highest GPA at graduation in Union University Computer Science	2014
Dr. Joe Tucker Scholarship	
Union University Math and Computer Science Departments	2013

Invited Talks, Panels, and Guest Lectures

T1. Invited Speaker

Title: Learning News Outlet Veracity using Relationship Graphs + My thoughts on Future Directions Disinformation Countermeasures and Machine Learning (DisCoML) Workshop at ICML 2022

T2. Invited Speaker

Title: What is Machine Learning?

The UTK Pre-College Programs & Southern Appalachian Science and Engineering Fair, 2022

T3. Invited Co-speaker with Dr. Catherine Luther

Title: Exploring the Impact of Russian Propaganda and Disinformation on Russian-speaking populations in post-Soviet States

U.S. DoD Basic Research Forum, 2021

T4. Invited Speaker

Title: Tailoring Heuristics and Timing AI Interventions for Supporting News Veracity Assessments iDRAMA Lab Seminar Series, 2021

T5. Invited Speaker

Title: AI for Misinformation

IDEA Institute for Artificial Intelligence, 2021

T6. Invited Co-speaker with Dr. Catherine Luther

Title: Exploring the Impact of Russian Propaganda and Disinformation on Russian-speaking populations in post-Soviet States

U.S. Technology Leadership Council (USTLC), 2021

T7. Co-Guest Lecture with Dr. Guy Harrison

Title: Advice on the Academic Job Hunt

CCI 620 Communication and Information Professional Development Seminar, 2021

T8. Panel Moderator

Title: The Rise of Extremist Movements on Social Media

UTK CCI Social Media Week, 2021

T9. Guest Lecture

Title: Robust News Veracity Detection With Some Adversarial Attacks ECE 692 Adversarial Learning, UTK Tickle College of Engineering, 2021

T10. Panelist

Title: Power of Information: Information Science Graduate Programs iSchool's Inc. Information Science Graduate Programs Fair, 2020

Teaching

University of Tennessee Knoxville:

INSC 201 Foundations of Information Sciences

Taught 5 times between 2020 – 2022

INSC 260 (formerly 360) Programming for Infomation Applications

Taught 4 times between 2021 – 2023 Newly Created

INSC 484 Database Applications

Taught 2 times between 2021 – 2022 Newly Created

INSC 591 Indep Project/Research

Taught 4 times between 2020 - 2023

INSC 594 Graduate Research Participation

Taught 5 times between 2021 – 2023

INSC 493 Indep Project/Research

Taught 3 times between 2022 - 2023

Rensselaer Polytechnic Institute:

CSCI 2300 Introduction to Algorithms

Spring 2015 as a Graduate Teaching Assistant

PhD Advisor:

Namrita Varier, PhD Communications and Information, UTK

PhD Committee Member:

Katie Knight, PhD Communications and Information, UTK

Masters Research Mentor:

Jeremy Horner, MS Information Sciences, UTK (2022)

Matt Childs, MS Information Sciences, UTK (2021 - 2022)

Denise Yewell, MS Information Sciences, UTK (2022)

Rohit Srivastava, MS Information Sciences, UTK (2021)

Nelia Koontz, MS Information Sciences, UTK (2021)

Summer Phillips, MS Information Sciences, UTK (2020 – 2022)

Undergraduate College Scholars Mentor:

Diego Lourenco, College Scholars Program, UTK (2021 – 2023)

Undergraduate Research Mentor:

Taylor Rogers, Computer Science, UTK (2022)

Service

University Service:

UTK Data Science Faculty Committee (Intercollegiate Program) (2021 – 2023)

UTK Proposal for Chancellor's Cluster Hiring Initiative: Data Driven Society Team (2022)

School and College Service:

SIS Undergraduate Program Committee (2020 – 2023)

SIS Faculty and Doctoral Student Affairs Committee (2022 – 2023)

CCI Social Media Week Ad-Hoc Committee (2021)

SIS Professor of Practice Search Committee (2020)

Academic Community Service:

Organizer: CrisisFACTS at The NIST Text Retrieval Conference (TREC) (2023)

Journal Reviewer: Nature Scientific Data (2023), Nature Scientific Reports (2022), Digital Journalism (2022), Information Processing and Management (2021), Harvard Kennedy School Misinformation Review (2020), International Journal of Communications (IJoC) (2019 – 2020), ACM Transactions on Internet Technology (TOIT) (2017)

Conference Program Committee Member: ICWSM (2019 - 2023), ACM WebSci (2020 - 2023), ICA Conference (2021), ICIS (2021), AMCIS (2017 - 2020), ASONAM (2019)

Workshop Program Committee Member: MEDIATE Workshop at ICWSM (2022), NECO Workshop at ICWSM (2017, 2018, 2020), MIS2 Workshop at WSDM (2018)