

# Xinchen Yu

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## CONTACT INFORMATION

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## RESEARCH INTERESTS

My research lies at the intersection of **natural language processing** (NLP) and **computational social science** (CSS). The primary goal is to **make computers understand and facilitate better communication** between people. My latest work centers on **explaining, predicting, and preventing** incivility in user-generated content. Specifically, I enhance the robustness of NLP systems in identifying **hate speech and counter speech**. Additionally, I develop reliable frameworks to **measure and forecast the incivility of conversations**, as well as bridge the gap between computer science and computational social science to facilitate the use of cutting-edge AI models in other disciplines, including communication and social science.

## ACADEMIC APPOINTMENTS

**Assistant Professor of Practice**, Department of Computer Science  
University of Arizona, Tucson, AZ

Aug. 2023 - present

## EDUCATION

**Ph.D. in Information Science** (Data Science Concentration)

Jul. 2023

University of North Texas, Denton, TX

Committee: Lingzi Hong (Chair), Eduardo Blanco, Junhua Ding, Diyi Yang

Thesis: Countering Hate Speech: Modeling User-generated Web Content Using Natural Language Processing (NLP)

**M.S. in Information Science**

May 2019

University of Pittsburgh, Pittsburgh, PA

**B.S. in Library and Information Science**

May 2017

Zhejiang University, Hangzhou, China

## PAPERS IN SUBMISSION

Xiaoying Song, Sharon Lisseth Perez, **Xinchen Yu**, Eduardo Blanco, Lingzi Hong. Echoes of Discord: Forecasting Hater Reactions to Counterspeech. *Under review*

## PUBLICATIONS

**Xinchen Yu**, Hayden Arnold, Benjamin Su, Eduardo Blanco. Measuring and Forecasting Conversation Incivility: the Role of Antisocial and Prosocial Behaviors. Accepted by ICWSM'25

**Xinchen Yu**, Eduardo Blanco, Lingzi Hong (2024). Hate Cannot Drive out Hate: Forecasting Conversation Incivility following Replies to Hate Speech. In *Proceedings of the 18th International AAAI Conference on Web and Social Media (ICWSM'24)*. Vol. 18, pp. 1740-1752. Buffalo, NJ, USA.

**Xinchen Yu**, Ashley Zhao, Eduardo Blanco, Lingzi Hong (2023). A Fine-Grained Taxonomy of Replies to Hate Speech. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP'23)*. pp. 7275-7289. Singapore.

**Xinchen Yu**, Zhuoli Xie, Afra Mashhadi, Lingzi Hong (2022). Multi-task Models for Multi-faceted Classification of Pandemic Information on Social Media. In *Proceedings of the 14th ACM Web Science Conference (WebSci'22)*. pp. 327-335. Barcelona, Spain.

**Xinchen Yu**, Eduardo Blanco, Lingzi Hong (2022). Hate Speech and Counter Speech Detection: Conversational Context Does Matter. In *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'22)*. pp. 5918-5930. Seattle, WA, USA.

**Xinchen Yu**, Jeremy Boy, Rene Clausen Nielsen, Lingzi Hong (2022). Linguistic Characteristics of Social Media Messages Spreading across Geographic and Linguistic Boundaries. In *Proceedings of the 9th European Conference on Social Media (ECSM'22)*. pp. 211-218. Virtual.

**Xinchen Yu**, Afra Mashhadi, Jeremy Boy, Rene Clausen Nielsen, Lingzi Hong (2022). Causal Impact Model to Evaluate the Diffusion Effect of Social Media Campaigns. In *Proceedings of 20th European Conference on Computer-Supported Cooperative Work (EUSSET'22)*. Vol. 6, no. 1. Coimbra, Portugal.

Alexander Kahanek, **Xinchen Yu**, Lingzi Hong, Ana Cleveland, Jodi Philbrick (2021). Temporal Variations and Spatial Disparities in Public Sentiment Toward COVID-19 and Preventive Practices in the United States: Infodemiology Study of Tweets. In *JMIR Infodemiology*. 2021;1(1):e31671.

Lingzi Hong, William Moen, **Xinchen Yu**, Jiangping Chen (2021). The Disciplinary Research Landscape of Data Science Reflected in Data Science Journals. In *Journal of Information Discovery and Delivery*. Vol. 49, pp. 287-297.

**Xinchen Yu**, Daida Shashidhar Reddy, Lasya Bentula, Lingzi Hong (2020). Characteristics of Information Spreading across Nations. In *Proceedings of the Association for Information Science and Technology (ASIS&T'20)*. Vol 57:e309. Pittsburgh, PA, USA.

**Xinchen Yu**, Shashidhar Reddy Daida, Jeremy Boy, Lingzi Hong (2020). The Effect of Structural Affinity on the Diffusion of a Transnational Online Movement: The Case of #MeToo. In *Proceedings of the 12th International Conference on Social Informatics (SocInfo'20)*. pp. 447-460. Virtual.

#### HONORS AND AWARDS

UNT Margaret Irby Nichols Endowed Scholarship (\$1,000)	2023
UNT Dewey E. Carroll Endowed Graduate Fellowship (\$4,000, top 1)	2022
UNT Graduate Student Research Awards (\$1,200)	2021, 2022
UNT Department of Information Science Travel Grant	2020, 2022
UNT COVID-19 Student Success Award (\$1,000)	2020, 2021
ZJU Excellent Student Awards	2014-2017
ZJU Hengyi Scholarship (top 1/326)	2016
ZJU Real Estate Fund Scholarship	2015

#### TEACHING

**Instructor of Record** at the University of Arizona.

- CSC 110: Introduction to Computer Programming I (Fall 2023, Spring 2024, Fall 2024)
- CSC 380: Principles of Data Science (Fall 2023, Spring 2024)

**Instructor of Record** at the University of North Texas.

- INFO 4670: Data Analysis and Knowledge Discovery (Fall 2022)

**Teaching Assistant** at the University of North Texas.

- INFO 3010: Introduction to Data Science (Fall 2020, Fall 2021)
- INFO 5709: Data Visualization and Communication (Spring 2021, Spring 2022)

#### INVITED TALKS & CONFERENCE PRESENTATIONS

**Countering Hate Speech: Detection, Strategies, and Forecasting.**

- Lucy Wang's Group Seminar, University of Washington, Oct. 2024

### **Forecasting Conversation Incivility following Replies to Hate Speech.**

- ICWSM, Jun. 2024

### **A Fine-Grained Taxonomy of Replies to Hate Speech**

- EMNLP, Dec. 2023

### **Hate speech and counter speech detection.**

- Women in Data Science Worldwide Tucson Conference (WiDS), Mar. 2024
- AJCAI Workshop on Toxic Language Detection (TLD), Dec, 2022
- NAACL, *Oral Presentation*, Aug. 2022

### **Multi-Faceted Classification of Pandemic Information.**

- WebSci, *Oral Presentation*, Jun. 2022

### **Characteristics of Information Spreading across Nations.**

- ASIS&T, *Oral Presentation*, Oct. 2020

## **SERVICE**

### **Mentoring and Advising**

- Hayden Arnold, UofA, undergraduate student → KAIST Digital Humanities and Computational Social Sciences
- Benjamin Su, UofA, undergraduate student → USC Viterbi School of Engineering
- Selina Lu, UofA, undergraduate student → CMU School of Information Systems & Management
- Ashley Zhao, TAMS, high school student → Cornell Engineering

### **Area Chairing**

- The 31st International Conference on Computational Linguistics (COLING 2025): Offensive Speech Detection and Analysis track

### **Reviewing**

- The Annual Meeting of the Association for Computational Linguistics (ACL 2024)
- The Conference on Empirical Methods in Natural Language Processing (EMNLP 2023, 2024)
- The Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)
- The ACM Conference on Human Factors in Computing Systems (CHI 2024)
- Computational Linguistics
- Information Discovery and Delivery
- The Electronic Library

### **To University of Arizona**

- Faculty Advisor, Women in Information and Computer Science      Fall 2023-Fall 2024
- Member, Transfer Student Support Committee      Fall 2023-Spring 2024

## REFERENCE

### **Eduardo Blanco**

Associate Professor in the Department of Computer Science  
College of Science  
University of Arizona  
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### **Lingzi Hong**

Assistant Professor in the Department of Information Science  
School of Information  
University of North Texas  
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### **Siqi Wu**

Assistant Professor in the Department of Information and Library Science  
Luddy School of Informatics, Computing, and Engineering  
Indiana University Bloomington  
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Website: <https://avalanchesiqi.github.io>