Xinchen Yu

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 — Aug. 2023 - present
University of Arizona, Tucson, AZ

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 Armold, Benjamin Su, Eduardo Blanco (2025). 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-Tucson), 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 Armold, 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

Conference Organizing

- The 7th Women in Data Science Tucson Conference (WiDS-Tucson 2025)

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
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Siqi Wu
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