Xinchen Yu

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RESEARCH INTERESTS

My research lies at the intersection of natural language processing (NLP) and computational social science (CSS). I am passionate about conversational behaviors and anti-social computing. The primary goal is to model conversations from user-generated content to explain, predict, and prevent online incivility. Specifically, I enhance NLP system performance on modeling uncivil behaviors by incorporating conversational context. Additionally, I develop frameworks to measure and forecast incivility of conversations. I am also interested in developing socially aware language technologies and facilitate their usage in other disciplines such as social and political science.

ACADEMIC APPOINTMENTS **Assistant Professor of Practice**, Computer Science

Aug. 2023 - present

University of Arizona, Tucson, AZ

EDUCATION

Ph.D. in Information Science

Jul. 2023

University of North Texas, Denton, TX

Advisor: Lingzi Hong

Committee: 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 Zhejiang University, Hangzhou, China

May 2017

PAPERS IN SUBMISSION

Xinchen Yu, Hayden Armold, Benjamin Su, Eduardo Blanco. Measuring and Forecasting Conversation Incivility: the Role of Antisocial and Prosocial Behaviors. *Under review*

PUBLICATIONS

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 2024).

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 2023).

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 2022).

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 2022).

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 2022).

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 2022).

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*.

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*.

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 2020).

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 2020).

TEACHING

Instructor of record at the University of Arizona.

- CSC 110: Introduction to Computer Programming I (Fall 2023 Fall 2024)
- CSC 380: Principle 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

Forecasting Conversation Incivility following Replies to Hate Speech.

• ICWSM, Jun. 2024

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, Aug. 2022

HONORS AND AWARDS

UNT Margaret Irby Nichols Endowed Scholarship (\$1,000)	2022
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

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
- $\bullet\:$ Selina Lu, UofA, undergraduate student \to CMU School of Information Systems & Management
- Ashley Zhao, TAMS, high school student → Cornell Engineering

Area Chairing

• COLING 2025: Offensive Speech Detection and Analysis track

Reviewing

- ACL 2024
- EMNLP 2023, 2024
- LREC-Coling 2024
- 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