# Hao Peng

16/274, Lau Ming Wai Academic Building Website: https://haoopeng.github.io/ CONTACT City University of Hong Kong Email: haopeng@cityu.edu.hk Kowloon Tong, Hong Kong LinkedIn: @hao-peng RESEARCH Computational Social Science, Data Science, Science of Innovation, Social Networks, Management Science, Complex Systems, Network Science, Social Media, Natural **INTERESTS** Language Processing, Diversity, Leadership, Communication, Ethnicity, Gender **Assistant Professor EMPLOYMENT** July 2024 - Present City University of Hong Kong Hong Kong, SAR • Department of Data Science College of Computing Postdoctoral Fellow May 2022 - June 2024 Northwestern University Evanston, IL, USA Kellogg School of Management (KSM) Northwestern Institute on Complex Systems (NICO) Research Intern May 2019 - July 2019 University of Southern California Los Angeles, USA Information Sciences Institute (ISI) Research Intern May 2016 - Aug. 2016 University of Pennsylvania Philadelphia, USA • The Positive Psychology Center World Well-Being Project (WWBP) **EDUCATION** Ph.D. in Information Science Sep. 2017 - May 2022 University of Michigan, School of Information Ann Arbor, MI, USA M.S. in Data Science Sep. 2015 - May 2017 Indiana University, School of Informatics Bloomington, IN, USA Sep. 2011 - June 2015 B.S. in Information Management

## AWARDS / GRANTS Grants

• City University of Hong Kong Startup Grant, HKD 900,000 (2024-2026)

Guangzhou, China

#### **Awards**

- Emerging Award, The Complex Systems Society, London, 2024
- Best Paper Honorable Mention, NetSci, Québec City, 2024

Sun Yat-Sen University, School of Information Management

- Best Paper Award (\$1,000), ASIS&T, Salt Lake, 2021
- Second Prize (\$750), John Hunter Plotting Contest, SciPy, Austin, 2019
- Microsoft Azure Research Award, 2016

#### Other Awards

- OPA Conference Travel Grant, Northwestern University, 2024
- UMich Rackham Travel Award, 2019
- UMSI PhD Travel Grant, 2018, 2019
- Travel Scholarship, IC2S2, 2018
- Indiana University Data Science Program Fellowship, 2015
- Academic Excellence Scholarship of Sun Yat-Sen University, 2011
- First Prize in the Provincial Physics Competition, Hubei, China, 2010
- Third Prize in the National Physics Olympiad Contest, China, 2010

#### **PUBLICATIONS**

\* denotes equal contribution. † denotes corresponding author.

## **Journal Papers**

- 1. Use of Promotional Language in Grant Applications and Grant Success H.S. Qiu, H. Peng, H.B. Fosse, T.K. Woodruff, B. Uzzi† JAMA Network Open 7(12), e2448696 (2024)
- Promotional Language and the Adoption of Innovative Ideas in Science H. Peng\*, H.S. Qiu\*, H.B. Fosse, B. Uzzi†
   Proceedings of the National Academy of Sciences 121, e2320066121 (2024)
- 3. Author Mentions in Science News Reveal Widespread Disparities Across Name-inferred Ethnicities
  - H. Peng<sup>†</sup>, M. Teplitskiy, D. Jurgens<sup>†</sup> Quantitative Science Studies 1-23 (2024)
- 4. Is Novel Research Worth Doing? Evidence From Peer Review at 49 Journals M. Teplitskiy†, H. Peng, A. Blasco, K.R. Lakhani Proceedings of the National Academy of Sciences 119, e2118046119 (2022)
- 5. Dynamics of Cross-Platform Attention to Retracted Papers
   H. Peng, D.M. Romero†, E.Á. Horvát†
   Proceedings of the National Academy of Sciences 119, e2119086119 (2022)
- Neural Embed. of Scholarly Periodicals Reveal Complex Disc. Organizations H. Peng, Q. Ke, C. Budak, D.M. Romero, Y.Y. Ahn† Science Advances 7, eabbgoo4 (2021)
- Network Modularity Controls the Speed of Information Diffusion H. Peng, A. Nematzadeh, D.M. Romero, E. Ferrara† Physical Review E 112, 052316 (2020)
- 8. Social Influence and Unfollowing Accelerate the Emergence of Echo Chambers K. Sasahara<sup>†</sup>, W. Chen, H. Peng, G.L. Ciampaglia, A. Flammini, F. Menczer Journal of Computational Social Science (2020)

g. Sentiment Analysis of Web Reviews Using Comparative Sentence Extraction
 H. Peng, J. Xu†, Z. Xiao
 Data Analysis and Knowledge Discovery 265 (2015)

## **Conference Papers**

- Event-Driven Analysis of Crowd Dynamics in the BLM Online Social Movement
   H. Peng, C. Budak, D.M. Romero
   The ACM International World Wide Web Conference (2019)
- 11. Recognizing Pathogenic Empathy in Social Media
  M. Abdul-Mageed, A. Buffone, H. Peng, S. Giorgi, J. Eichstaedt, L. Ungar
  The International AAAI Conference on Web and Social Media (2017)
- Performance Dynamics and Success in Online Games
   A. Sapienza, H. Peng, E. Ferrara
   IEEE International Conference on Data Mining Workshop (2017)

# Pre-prints

Acceptance in Top Biology Journals Shows Large Ethnic Disparities
 H. Peng, K.R. Lakhani, M. Teplitskiy
 SocArXiv (2021) [Link]

#### **TEACHING**

City University of Hong Kong, Department of Data Science

SDSC 5002 - Exploratory Data Analysis and Visualization
 Sem A 2024/25

Northwestern University, School of Communication

MSLCE - Culture & Art Analytics (lecturer for Ágnes Horvát)
 Spring 2023

University of Michigan, School of Information

• SI 106 - Programs, Information and People (TA for Paul Resnick) Winter 2019

Fall 2018

• SI 330 - Data Manipulation (TA for Matthew Kay)

## SELECTED TALKS Invited Talks

(Talks in 2023/24 were scheduled virtually due to family circumstances)

- The 3rd Computational Social Science Conference, CUHK Jan 2025
   Does Promotional Language Communicate Merits of Novel Ideas in Science?
- Southern University of Science and Technology, Shenzhen Jan 2025
   Promotional Language and the Adoption of Innovative Ideas in Science
- 3. School of Information Management, Sun Yat-Sen University Nov 2024 Promotional Language Facilitates Idea Adoption in Science
- 4. School of Data Science (Zoom), City University of Hong Kong
   Necessity and Strategy for Facilitating Idea Adoption in Science
- 5. Wednesdays@NICO, Northwestern University

   Necessity and Strategy for Facilitating Idea Adoption in Science

6.	Graduate School of Management (Zoom), UC Davis - Necessity and Strategy for Facilitating Idea Adoption in Science	Jan 2024
7.	HKU Business School (Zoom), The University of Hong Kong - Necessity and Strategy for Facilitating Idea Adoption in Science	Dec 2023
8.	Harvard Business School (Zoom), Harvard University - Does Promotional Language Communicate the Merits of Innovative	Oct 2023 /e Science?
9.	Mendoza College of Business (Zoom), University of Notre Dame - Does Promotional Language Communicate the Merits of Innovative	Oct 2023 ve Science?
Conference Presentation / Participation		
	ICWSM, Copenhagen	June 2025
2.	ICSSI, Copenhagen Business School, Denmark - The Power of "We" in Science Funding and Academic Publishing	June 2025
3.	The ACM Web Conference (WWW), Sydney	May 2025
4.	International Conference on Information Systems (ICIS), Bangkok	Dec 2024
5.	National Bureau of Economic Research (NBER), Boston - Promotional Language and the Adoption of Innovative Ideas in Sc	July 2024 Eience
6.	IC2S2, UChicago - Gender Differences in Scholarly Self-Promotion on Twitter	July 2022
7.	ICSSI, National Academy of Sciences, Washington, DC - Dynamics of Cross-Platform Attention to Retracted Papers - The Gender Gap in Scholarly Self-Promotion on Twitter	June 2022
8.	IC2S2, ETH Zurich, Switzerland - Analyzing Online Attention to Retracted Papers	July 2021
9.	IC2S2, MIT	July 2020
	<ul> <li>Network Modularity Controls the Speed of Information Diffusion</li> <li>Neural Embeddings of Periodicals Reveal Complex Disciplinary Organizations</li> <li>Say My Name: Author Mentions in Science News Reveal Ethnic Bias</li> </ul>	
10.	WWW, San Francisco - Event-Driven Analysis of Crowd Dynamics in BLM Online Social M	May 2019 ovement
11.	IC2S2, Northwestern University - Event-Driven Modeling of Crowd Dynamics in Online Social Move	July 2018
12.	NetSci, Indianapolis - A Quantitative Model for Revealing Disciplinary Organizations in S	June 2017
	nar Talks Computational Social Science Lab Mini-Conference, CUHK - Linguistic Strategies for Facilitating Idea Adoption in Science	April 2025
•	Science of Science for the Future, Swarma Pattern	Oct 2024
	Job Market Brain Dump, Kellogg, Northwestern University	May 2024
	DS/CSS Seminar, University of Michigan	Oct. 2019
•	IAR Seminar, University of Michigan	April 2019

#### SERVICES

## City University of Hong Kong, Department of Data Science

- PhD Admission Committee Member, 2024-2026
- MSDS Programme Committee Member, 2024-2026
- Programme Committee of MS in Artificial Intelligence for Science, 2025-27

#### Journal Reviewer

- PNAS, Science Advances, Nature Human Behaviour, Nature Communications, Scientific Reports
- Information Processing & Management, Transactions on the Web, Science Communication, PLOS One, Scientometrics, Journal of the Association for Information Science and Technology, Sage Open

## Program Committee Member / Reviewer

- The ACM Web Conference: 2019, 2020
- The ACM International Conference on Web Search and Data Mining: 2019, 2020
- The ACM Conference on Human Factors in Computing Systems: 2022, 2024
- The ACM Conference on Computer-Supported Cooperative Work: 2020, 2023
- The International AAAI Conference on Web and Social Media: 2020-2024
- International Conference on Computational Social Science: 2022-2025
- Academy of Management Conference: 2024
- Conference on Complex Systems: 2024, 2025
- European Conference on Artificial Intelligence: 2025

# **Professional Memberships**

- Academy of Management (AOM)
- The Complex Systems Society (CSS)
- The Network Science Society (NetSci)
- Association for Information Systems (AIS)
- International Communication Association (ICA)
- Association for Computational Linguistics (ACL)
- Association for Information Science & Technology (ASIS&T)

# MEDIA COVERAGE Selected News Stories

- 1. Aug 2024, Science News
  - The power of words: how promotional language drives scientific innovation
- 2. April 2024, NPR
  - Which scientists get mentioned in the news? Mostly ones with Anglo names, says study
- 3. April 2024, LSE Impact Blog
  - Researchers with minority ethnic names are written out of US science journalism
- 4. April 2024, Fast Company
  - Researchers with African and East Asian names are less likely to be mentioned in U.S. media

- 5. April 2024, The Conversation, Yahoo! News, Phys.org
  - US media coverage of new science less likely to mention researchers with African and East Asian names
- 6. Mar 2024, Science Magazine
  - Scientists with East Asian and African names get short shrift in news coverage
- 7. Dec 2022, Michigan News
  - Journal editors, reviewers don't show bias against novelty
- 8. July 2022, The Washington Post
  - Retractions aren't a panacea for bad research
- 9. July 2022, Le Monde (French)
  - En science aussi les fausses informations circulent mieux que les bonnes
  - (In science too, false information circulates better than good information)
- 10. July 2022, Deutschlandfunk (German National Radio)
  - Warum fehlerhafte Studien oft die meiste Aufmerksamkeit bekommen
  - (Why flawed studies often get the most attention)
- 11. June 2022, Northwestern Now
  - Flawed research not retracted fast enough to prevent spread of misinformation
- 12. June 2022, Retraction Watch, Inside Higher Ed
  - Retractions: A Missed Opportunity?
- 13. June 2022, Academica Group
  - Article retractions take too long to influence public discourse
- 14. June 2022, Michigan News, Phys.org
  - Flawed research not retracted fast enough to prevent spread of misinformation, study finds
- 15. Oct 2021, Entrepreneur, Scientific American, Yahoo! News
  - Facebook Whistleblower Testified That Company's Algorithms Are Dangerous
- 16. Oct 2021, Big Think
  - Here's exactly how social media algorithms can manipulate you
- 17. Sep 2021, MSN, Salon
  - How "engagement" makes you vulnerable to manipulation and misinformation on social media
- 18. Sep 2021, The Conversation, Newsbreak, Phys.org
  - Facebook's algorithms fueled massive foreign propaganda campaigns during the 2020 election
- 19. Dec 2020, Scientific American
  - Information Overload Helps Fake News Spread, and Social Media Knows It
- 20. Sep 2020, New Scientist
  - US science news biased against people with names of non-British origin