

Katy Ilonka Gero

katy.gero@sydney.edu.au www.katygero.com

Current Position

2025–present **Lecturer in Computer Science**, University of Sydney

Education

- 2023–2025 **Postdoctoral Fellow in Computer Science**, Harvard University
Advised by Elena Glassman
- 2017–2022 **Ph.D. in Computer Science**, Columbia University
Thesis: AI and the writer: how language models support creative writers
Advised by Lydia Chilton
- 2017–2019 **M.S. in Computer Science**, Columbia University
- 2009–2013 **B.S. in Mechanical Engineering**, Massachusetts Institute of Technology

Publications

Full Conference Publications

From Planning to Revision: How AI Writing Support at Different Stages Alters Ownership

K. Gero, T. Long, C. Schnitzler, P. Dhillon.

Proceedings of the 2026 ACM Designing Interactive Systems Conference (DIS '26, to appear)

A Paradigm for Creative Ownership

T. Polimetla, **K. Gero**, E. Glassman.

Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26)

Creative Writers' Attitudes on Writing as Training Data for Large Language Models (**Best Paper Award**)

K. Gero, M. Desai, C. Schnitzler, N. Eom, J. Cushman, E. Glassman.

Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)

Position: Data Authenticity, Consent and Provenance for AI are All Broken: What Will It Take to Fix Them?

S. Longpre, R. Mahari, N. Obeng-Marnu, W. Brannon, T. South, **K. Gero**, A. Pentland, J. Kabbara.

Forty-First International Conference on Machine Learning (ICML '24)

Not Just Novelty: A Longitudinal Study on Utility and Customization of an AI Workflow

T. Long, **K. Gero**, L. Chilton.

Proceedings of the 2024 ACM Designing Interactive Systems Conference (DIS '24)

Supporting Sensemaking of Large Language Model Outputs at Scale (**Honorable Mention**)

K. Gero, C. Swoopes, Z. Gu, J. Kummerfeld, E. Glassman.

Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)

A Design Space for Intelligent and Interactive Writing Assistants

M. Lee, **K. Gero**, J. Chung, S. Shum, V. Raheja, H. Shen, S. Venugopalan, T. Wambsganss, D. Zhou, E.

Alghamdi, T. August, A. Bhat, M. Choksi, S. Dutta, J. Guo, M. Hoque, Y. Kim, S. Knight, S. Neshaei, A. Shibani,

D. Shrivastava, L. Shroff, A. Sergeyuk, J. Stark, S. Serman, S. Wang, A. Bosselut, D. Buschek, J. Chang, S.

Chen, M. Kreminski, J. Park, R. Pea, Z. Shen, P. Siangliulue.

Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)

Social Dynamics of AI Support in Creative Writing

K. Gero, T. Long, L. Chilton.

Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)

Sparks: Inspiration for Science Writing Using Language Models

K. Gero, V. Liu, L. Chilton.

Proceedings of the 2022 ACM Designing Interactive Systems Conference (DIS '22)

Eliciting Gestures for Novel Note-taking Interactions

K. Gero, L. Chilton, C. Melancon, M. Cleron.

Proceedings of the 2022 ACM Designing Interactive Systems Conference (DIS '22)

What Makes Tweeterials Tick: How Experts Communicate Complex Topics on Twitter

K. Gero, V. Liu, S. Huang, J. Lee, L. Chilton.

Proceedings of the 21st ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '21)

Mental Models of AI Agents in a Cooperative Game Setting (Best Paper Award)

K. Gero, Z. Ashktorab, C. Dugan, Q. Pan, J. Johnson, W. Geyer, M. Ruiz, S. Miller, D. Millen, W. Geyer.

Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20)

Low-Level Linguistic Controls for Style Transfer and Content Preservation

K. Gero, C. Kedzie, J. Reeve, L. Chilton.

Proceedings of the 12th International Conference on Natural Language Generation (INLG '19)

Metaphoria: An Algorithmic Companion for Metaphor Creation

K. Gero, L. Chilton.

Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)

Biometeorological indices explain outside dwelling patterns based on Wi-Fi data in support of sustainable urban planning

C. Reinhart, J. Dhariwal, **K. Gero**.

Building and Environment (Building and Environment '17)

Design and analysis of a robust, low-cost, highly articulated manipulator enabled by jamming of granular media

N. Cheng, M. Lobovsky, S. Keating, A. Setapen, **K. Gero**, A. Hosoi, K. Iagnemma.

International Conference on Robotics and Automation (IEEE ICRA '12)

Workshop Papers, Posters, and Other

Augmented Close Reading for Classical Latin using BERT for Intertextual Exploration

A. Gong, **K. Gero**, M. Schiefsky.

Proceedings of the 5th International Conference on Natural Language Processing for Digital Humanities (ACL Workshop '25).

Comment: The incentive gap in data work in the era of large models

K. Gero, P. Das, P. Dognin, I. Padhi, P. Sattigeri, K. Varshney.

Nature Machine Intelligence (Nature Machine Intelligence).

Sensemaking Interfaces for Human Evaluation of Language Model Outputs

K. Gero, J. Kummerfeld, E. Glassman.

Workshop on Human Evaluation for Generative Models, NeurIPS (NeurIPS Workshop '22).

A Design Space for Writing Support Tools Using a Cognitive Process Model of Writing

K. Gero, A. Calderwood, C. Liu, L. Chilton.

1st Workshop on Intelligent and Interactive Writing Assistants, ACL (ACL Workshop '22).

How do we audit generative models?

K. Gero.

Generative AI and HCI Workshop, CHI (CHI Workshop '22).

Lightweight Decoding Strategies for Increasing Specificity

K. Gero, C. Kedzie, S. Petridis, L. Chilton.

arXiv preprint arXiv:2110.11850 (arXiv 2021).

Poetry Machines: Eliciting Interactive Writing Tools from Poets

K. Booten*, **K. Gero***.

Proceedings of the 2021 on Creativity & Cognition (C&C '21).

How Novelists Use Generative Language Models: An Exploratory User Study

A. Calderwood, V. Qiu, **K. Gero**, L. Chilton.

1st Workshop on Human-AI Co-Creation with Generative Models, IUI (IUI Workshop '20).

How a Stylistic, Machine-Generated Thesaurus Impacts a Writer's Process

K. Gero, L. Chilton.

Proceedings of the 2019 on Creativity & Cognition (C&C '19).

Challenges in Finding Metaphorical Connections

K. Gero, L. Chilton.

Proceedings of the Workshop on Figurative Language Processing, NAACL (NAACL Workshop '18).

Research Internships

2022 **IBM Research**, Yorktown Heights, NY; Jun–Aug

Mentor: Kush Varshney

Investigated data work in text generation; resulted in Nature Machine Intelligence publication.

2021 **Google Research**, New York, NY; Jun–Aug

Mentor: Chris Melancon

Ran study on novel stylus gestures for note-taking; resulted in DIS paper.

2019 **IBM Research**, Cambridge, MA; Jun–Aug

Mentor: Zahra Ashktorab

Ran study on mental models of AI; resulted in CHI Best Paper Award.

Industry Employment

2016–17 **Soofa**, Research & Development Lead, Cambridge, MA

Soofa creates technology for cities, like solar-powered transit signs. Managed research projects on the Soofa Platform.

2013–16 **Rest Devices**, Product Developer, Boston, MA

Rest Devices designed and manufactured a soft, wearable baby monitor. Oversaw manufacturing; designed and implemented new algorithms.

Funding

2026 Multi-modal Interactive Gen-AI Teaching and Research Facility

Capital Equipment (CAPEX) and Contingency Fund, University of Sydney, 201,000AUD

2023 Making Sense of Language Model Outputs for End-User Tasks

Amazon Research Award, Amazon Science, 70,000USD

2019 An AI Tool to Help Scientists Explain Technical Work to the Public

Magic Grant, The Brown Institute for Media Innovation, 65,000USD

- 2018 Making art in an age of algorithms: Critical readings across the disciplines
Seed Grant for Interdisciplinary Research, Columbia University, 2,000USD

Fellowships, Awards & Recognition

- 2023–25 Library Innovation Lab Fellow, *Harvard University*
- 2023–25 Embedded EthiCS Teaching Fellow, *Harvard University*
- 2023 EECS Rising Stars, *Georgia Tech*
- 2022 Paul Charles Michelman Memorial Award for Exemplary Service, *Columbia University*
- 2018 Graduate Student Digital Project Honorable Mention, *NYC Digital Humanities*
- 2017 Provost's Diversity Fellowship, *Columbia University*
- 2017 NSF Graduate Research Fellow (GRFP), *National Science Foundation*
- 2013 Carl G. Sontheimer Prize for Excellence in Innovation & Creativity, *Massachusetts Institute of Technology*

Teaching

Instructor

- 2026 **Usability Engineering** (COMP 4427/5427), University of Sydney
Co-Instructor: Zhanna Sarsenbayeva
- 2024 **Research Topics in Human-Computer Interaction** (CS 270R), Harvard University
Co-Instructor: Elena Glassman

Teaching Assistant

- 2019 **Introduction to Natural Language Processing** (CS 4705), Columbia University
Instructor: Kathy McKeown
- 2018 **Advanced Web Design Study** (COMS 6998), Columbia University
Instructor: Lydia Chilton

Guest Lectures

- 2025 Introduction to Human-Computer Interaction, *University of Sydney*
- 2023 Intelligent and Interactive Writing Assistants, *Pennsylvania State University*
- 2023 Human-Centered NLP, *Carnegie Mellon University*
- 2021 Communicating Data & Statistics, *Columbia University*
- 2020 Advanced Web Design Studio, *Columbia University*

Invited Talks

2026

- Who Owns the Future of AI?, *University of Melbourne* (Center for AI and Digital Ethics Seminar)
- Who Owns the Future of AI?, *University of Melbourne* (Human-Computer Interaction Seminar)
- Seed Banks, Stoop Swaps, Scoby: New Visions for Generative AI, *TEXT: Center for Contemporary Cultures of Text*, *Aarhus University* (AI and the Creative Condition Conference)

2025

Who Owns the Future of AI?, *Sydney AI Meetup* (Keynote)
Design Frictions for LLM Usage, *Commonwealth Bank* (Networking Hour)
LLM Fine-Tuning, *Australian National University* (AI+ML Seminar)
Community Language Models by and for Writers, *Berkman Klein Center* (Community Hour)
Envision Community Owned and Operated Language Models, *Columbia University* (HCI Seminar)
Writing to the Future, *PEN Write America* (You Are A Writer Panel)

2024

Navigating the Role of LLMs in the Creative Chain, *IBM* (HCI Seminar)
Cooperatively Owned & Operated Language Models, *Berkman Klein Center* (Ethical Tech Working Group)
AI and the Writer, *Northern New York Library Network* (AI & the Adirondacks)
Writers & Artists Interacting with AI, *CUNY* (Art Science Connect: AI Symposium)
Fine-Tuning Language Models for Voice, *University of Maryland* (Writing Class)
Your Voice in the Machine, *Johns Hopkins University Writing Program* (Digital Doppelgangers)

2023

AI and the Writer, *Harvard Kennedy School* (Belfer Center for Science and International Affairs)
AI and the Writer, *Amazon AWS* (Human in the Loop Science Summer Seminar Series)
The Incentive Gap in Data Work, *Observable* (Data and Donuts)
AI and the Writer, *Secure AI* (Lunch-n-Learn)
AI and the Writer, *University of Colorado Boulder* (ATLAS Institute)
Your Voice in the Machine, *Johns Hopkins University Writing Program* (Digital Doppelgangers)
Training Your Voice into the Machine, *Monthly Workshop* (If, Then: Technology and Poetics)
Writing with Artificial Intelligence, *Augsburg University* (MFA in Creative Writing Program)

2021

AI Support Tools, *Conversations with The Browser*
Path to PhD, *Rutgers University* (Douglass Project for Women in STEM)
What are Language Models and How Should We Use Them?, *RISD* (Computational Poetics Class)

2020

Technology for Writing, *AI4ALL* (AI4ALL Summer Program)
Technology for Writing, *Ignition Hacks*
Technology for Writing, *Columbia University* (Demystifying the Dissertation Speaker Series)
Re-Generating Text with Style, *CultureHub* (Re-Fest)

2019

Semantic Tools for Writers, *Dartmouth College* (Computational Models & Mimesis Symposium)
AI Tools for Creative Writing, *Grammarly* (NLP Meeting)
Words, words, words, style, words, words, words, and words, *Babycastles* (WordHack)

Community Service

- 2019–22 Mentor, **Women in Science at Columbia and Women in Computer Science**, Columbia University
Various semester-based career mentorship for undergrads.
- 2021 Mentor, **BEARS Research Program for Women**, Barnard College
Ran monthly meetings with five undergrads to demystify research.

- 2020–21 Organizer, **Pre-Application Review Program for PhD Applicants**, Columbia University
With Chris Kedzie, initiated this now-permanent program to improve equity in PhD admission process.
- 2019–20 Academic Chair, **Women in Computer Science (WiCS) Club**, Columbia University
Ran events to introduce undergraduates to research.

Professional Service

Organizing

- 2026 Associate Chair, *Specific Application Areas Subcommittee*, CHI
- 2025 Associate Chair, *General*, DIS
- 2024 Lead Organizer, *Workshop on Intelligent and Interactive Writing Assistants*, NAACL
- 2024 Registration Co-Chair, *Creativity and Cognition (C&C)*
- 2024 Co-Organizer, *Workshop on Intelligent and Interactive Writing Assistants*, CHI
- 2023 Associate Chair, *Computer Supported Cooperative Work (CSCW)*
- 2023 Co-Organizer, *Workshop on Intelligent and Interactive Writing Assistants*, CHI
- 2022 Co-Organizer, *Workshop on Intelligent and Interactive Writing Assistants*, ACL

Reviewing

- 2026 CHI, DIS, C&C, UIST, ToCHI, HCIJ, CACM
- 2025 CHI, DIS, HAI-GEN
- 2024 CHI, AIES
- 2023 CHI, TOCHI, UIST, CSCW, TheWebConf, HAI-GEN, FDG
- 2022 CHI, UIST, TOCHI, DIS, DH, FigLang, HAI-GEN, HMCaT
- 2021 CHI, TOCHI, IJHCI, DIS, C&C, CSCW
- 2020 UIST, HAI-GEN

Undergraduate and Master's Mentees

University of Sydney

- Tanvi Bangar**, Undergraduate Honours Thesis
- Devang Jindia**, Undergraduate Honours Thesis
- Yang Song**, Master's Research Pathway
- Wendy Fu**, Undergraduate Dalyell Scholar
- Helen Chen**, Affiliate Master's Student (University of Waterloo)

Harvard University

- Tejaswi Polimetla**, Data Science Master's Thesis
- Ashley Gong**, Undergraduate Senior Thesis
- Ivy Liang**, Undergraduate Senior Thesis
- Leah Teichholtz**, Undergraduate Senior Thesis

Columbia University

Sarah Huang, Barnard CS Undergraduate

Jennifer Lee, Columbia CS/Literature Undergraduate → Stanford Modern Thought and Literature PhD

Vivian Qiu, Columbia CS/Creative Writing Undergraduate → AlphaSights Manager

Charlotte Li, Columbia CS Undergraduate → Northwestern Computer Science PhD

Alex Calderwood, Columbia CS/Journalism Master's → UC Santa Cruz Computational Media PhD

Media Writing

2026 *Making a Literary Future with Artificial Intelligence*, LA Review of Books

2022 *AI Reveals the Most Human Parts of Writing*, Wired

2020 *What Kinds of Sonnets Will Computers Write?*, Catapult

2018 *Is It Possible for Machines to Translate Poetry?*, Electric Literature

Involvement in the Arts

As a writer and poet, I've been involved in artistic and community endeavors in the traditional and computational poetry community. My poems have been published in venues such as The HTML Review, Stirring Lit, Catapult, and more. I have been invited to read my poems at events such as The New York City Poetry Festival, the Dear Ocean Reading Series, and MIT's William Corbett Poetry Series.

Books

2025 *The Anxiety of Conception*, Nothing to Say Press

Editorial Positions

2023– Founding Editor, *Ensemble Park: A Journal of Human+Computer Writing*

2022–23 Member of the Editorial Collective, *taper magazine*