

# ELISA KREISS

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## Academic Employment

**Assistant Professor**, University of California, Los Angeles (UCLA) Nov 2023 –  
Department of Communication  
Department of Computer Science (*by courtesy*, Jul 2026–)

**Google**, People + AI Research (PAIR) July 2022 – Sept 2022  
Research Internship  
Manager: Meredith Ringel Morris

## Education

**Stanford University, Linguistics**, USA Sept 2018 – Sept 2023  
*Doctor of Philosophy*  
Committee: Christopher Potts (Advisor), Noah Goodman, Dan Jurafsky, Meredith Ringel Morris

**Osnabrück University, Cognitive Science**, Germany Sept 2014 – Dec 2017  
*Bachelor of Science*  
Advisors: Judith Degen and Eleni Gregoromichelaki

## Publications

### Conference Publications

Note: Conferences are the primary publication medium in computer science, comparable to journals in other disciplines.

- [1] P. Savgira, **E. Kreiss**, and H. Hosseinmardi. “What Stays and What Goes: Auditing the Impact of LLM Summarization on News Partisanship”. *Proceedings of the Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems*. 2026.
- [2] B. Gao and **E. Kreiss**. “Measuring Bias or Measuring the Task: Understanding the Brittle Nature of LLM Gender Biases”. *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*. 2025.
- [3] G. Liu, V. T. Le, S. Rahman, **E. Kreiss**, M. Ghassemi, and S. Gabriel. “MOSAIC: Modeling Social AI for Content Dissemination and Regulation in Multi-Agent Simulations”. *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*. 2025.
- [4] R. Kapur and **E. Kreiss**. “Reference-Based Metrics Are Biased Against Blind and Low-Vision Users’ Image Description Preferences”. *EMNLP: Third Workshop on NLP for Positive Impact*. 2024. Best Paper Award.
- [5] N. Naik, C. Potts, and **E. Kreiss**. “CommVQA: Situating Visual Question Answering in Communicative Contexts”. *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing*. 2024.
- [6] A. Zur, **E. Kreiss**, K. D’Oosterlinck, C. Potts, and A. Geiger. “When Interpretability Enhances Accessibility: Training CLIP to Prefer Descriptions Over Captions”. *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing*. 2024.
- [7] **E. Kreiss**<sup>\*</sup>, E. Zelikman<sup>\*</sup>, C. Potts, and N. Haber. “ContextRef: Evaluating Referenceless Metrics For Image Description Generation”. *The Twelfth International Conference on Learning Representations (ICLR)*. 2024.

- [8] A. Verma, K. Mukherjee, C. Potts, **E. Kreiss**, and J. Fan. “Evaluating human and machine understanding of data visualizations”. *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2024. Vol. 46.
- [9] A. Cao\*, A. Geiger\*, **E. Kreiss\***, T. Icard, and T. Gerstenberg. “A semantics for causing, enabling, and preventing verbs using structural causal models”. *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2023. Vol. 45.
- [10] **E. Kreiss**, C. Bennett, S. Hooshmand, E. Zelikman, M. R. Morris, and C. Potts. “Context Matters for Image Descriptions for Accessibility: Challenges for Referenceless Evaluation Metrics”. *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing*. 2022. Pp. 4685–4697.
- [11] **E. Kreiss**, F. Fang, N. Goodman, and C. Potts. “Concadia: Towards Image-Based Text Generation with a Purpose”. *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing*. 2022. Pp. 4667–4684.
- [12] F. Fang, K. Sinha, N. D. Goodman, C. Potts, and **E. Kreiss**. “Color Overmodification Emerges from Data-Driven Learning and Pragmatic Reasoning”. *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2022. Vol. 44.
- [13] A. Geiger, Z. Wu, H. Lu, J. Rozner, **E. Kreiss**, T. Icard, N. Goodman, and C. Potts. “Inducing causal structure for interpretable neural networks”. *International Conference on Machine Learning*. 2022. Pp. 7324–7338.
- [14] Z. Wu, A. Geiger, J. Rozner, **E. Kreiss**, H. Lu, T. Icard, C. Potts, and N. Goodman. “Causal Distillation for Language Models”. *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*. 2022. Pp. 4288–4295.
- [15] Z. Wu\*, **E. Kreiss\***, D. Ong, and C. Potts. “ReaSCAN: Compositional Reasoning in Language Grounding”. *Thirty-fifth Conference on Neural Information Processing Systems Datasets and Benchmarks Track (Round 1)*. 2021.
- [16] **E. Kreiss** and J. Degen. “Production expectations modulate contrastive inference.” *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2020. Vol. 42.
- [17] **E. Kreiss\***, Z. Wang\*, and C. Potts. “Modeling Subjective Assessments of Guilt in Newspaper Crime Narratives”. *Proceedings of the 24th Conference on Computational Natural Language Learning*. 2020. Pp. 56–68.
- [18] **E. Kreiss**, M. Franke, and J. Degen. “Uncertain evidence statements and guilt perception in iterative reproductions of crime stories.” *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2019. Vol. 41.

## Journal Articles

- [19] J. Degen, R. D. Hawkins, C. Graf, **E. Kreiss**, and N. D. Goodman. “When redundancy is useful: A Bayesian approach to “overinformative” referring expressions.” In: *Psychological Review* 127.4 (2020), p. 591.

## Lightly Reviewed Publications

- [20] **E. Kreiss**, J. A. Hermsillo, K. Srinivasan, C. Bennett, T. Piccardi, M. S. Bernstein, M. R. Morris, and C. Potts. “Characterizing Image Accessibility on Wikipedia across Languages”. *Wiki Workshop*. 2023.
- [21] **E. Kreiss**, S. Venugopalan, S. Kane, and M. R. Morris. “Practical Challenges for Investigating Abbreviation Strategies”. *CHI Conference on Human Factors in Computing Systems: The Second Workshop on Intelligent and Interactive Writing Assistants*. 2023.
- [22] N. Naik, C. Potts, and **E. Kreiss**. “Context-VQA: Towards Context-Aware and Purposeful Visual Question Answering”. *Proceedings of the International Conference on Computer Vision (ICCV): 5th Workshop On Closing The Loop Between Vision And Language*. 2023.
- [23] S. Hooshmand, **E. Kreiss**, and C. Potts. “Intuitive Image Descriptions are Context-Sensitive”. *NeurIPS Workshop: Meaning in Context*. 2021.
- [24] **E. Kreiss**, R. X. Hawkins, J. Degen, and N. Goodman. “Mentioning atypical properties of objects is communicatively efficient”. *Proceedings of the Annual Meeting of the Cognitive Science Society*. 2017. Vol. 39.

## Grants

<b>Seeing Through Culture: Understanding How Culture Shapes Nonvisual Accessibility Needs</b> PI UCLA Society of Hellman Fellows Award	2025 – 2026
<b>Leveraging California’s Linguistic Diversity to Improve Large Language Models</b> Co-I (with PI Matt Wagers) University of California Multicampus Research Programs and Initiatives	2025 – 2027
<b>Improved Measures of Data Visualization Literacy to Advance Research and Assessment in STEM Education</b> Co-PI (with PI Judith Fan and Co-PIs Lace Padilla and Christopher Potts) National Science Foundation	2024 – 2026
<b>Vision-Text Understanding Study to Improve Accessibility and Education</b> PI Googler-initiated Research Grants (GiGs)	2024
<b>Towards Vision-Language Model Assessment for Nonvisual Accessibility</b> PI Google Gemma Academic Program: GCP Credits Award	2024
<b>Generating Descriptions of Data Visualizations to Improve Accessibility and Learning Outcomes in STEM Education</b> PI (with Co-PIs Judith Fan and Christopher Potts) Stanford Human-Centered AI & Accelerator for Learning Seed Grant	2023 – 2024
<b>Tackling Image Accessibility with Descriptive Texts and Context</b> PI (with Co-PIs Christopher Potts and Noah D. Goodman) Google Research Award	2021 – 2024
<b>Stanford Linguistics Department Research Grant</b>	2019

## Awards

<b>Best Paper Award</b> , with co-author Rhea Kapur For <i>Reference-Based Metrics Are Biased Against Blind and Low-Vision Users’ Image Description Preferences</i> EMNLP: Third Workshop on NLP for Positive Impact	2024
<b>NeurIPS Top Reviewer Award (best 10%)</b>	2023
<b>Stanford Community Impact Award</b> For profound dedication to the university and overall Stanford community	2022

## Teaching

<b>Instructor: The Science of Language</b> , UCLA	Mar 2026 – June 2026
<b>Instructor: NLP for Social Science</b> , UCLA	Jan 2026 – Mar 2026
<b>Instructor: The Science of Language</b> , UCLA	Mar 2025 – June 2025
<b>Instructor: NLP for Social Science</b> , UCLA	Sept 2024 – Dec 2024
<b>Instructor: Communication and Cognition</b> , UCLA	Mar 2024 – June 2024
<b>Guest Lecture: Inclusive Design</b> (Thomas Brinck), University of Maryland	September 2023
<b>Guest Lecture: Human-Centered NLP</b> (Diyi Yang), Stanford	May 2023
<b>TA (Teaching Assistant): Introduction to Linguistics</b> (Katherine Hilton), Stanford	Sept 2021 – Dec 2021
<b>TA: Introduction to Semantics and Pragmatics</b> (Christopher Potts), Stanford	Jan 2021 – Mar 2021
<b>TA: Cognitive Modeling</b> (Michael Franke), Osnabrück	Feb 2018 – Sept 2018

**TA: Introduction to Computational Linguistics** (Eleni Gregoromichelaki), Osnabrück  
**TA: Introduction to Computational Linguistics** (Peter Bosch), Osnabrück

April 2017 – July 2017  
April 2016 – July 2016

## Advising

### Dissertation Committee

Joyce Yanru Jiang (in progress, UCLA Communication)  
Haoyi Qiu (in progress, UCLA Computer Science)

### Qualifying Exam & Masters Committee

Michael Lin Simon (in progress, UCLA Computer Science)  
Mohsen Fayyaz (in progress, UCLA Computer Science)  
Zachary Rosen (2026, UCLA Communication)  
Siyi Gong (2025, UCLA Communication)  
Lin L. Lin (2025, UCLA Communication)  
Haoyi Qiu (2025, UCLA Computer Science)  
Joyce Yanru Jiang (2024, UCLA Communication)

## Invited Talks

<b>Colloquium Series on Mind, Technology, and Society</b> , <i>UC Merced</i> From Images to Words: The Problem of Information Selection	April 2026
<b>Technology and Social Behavior (TSB) Distinguished Speaker Series</b> , <i>Northwestern</i> Redefining the Image Captioning Challenge: From Truthful to Useful	Mar 2026
<b>A Bridge to Humanizing AI: A Celebration of 50 Years UCLA Communication</b> , <i>UCLA</i> Panel discussion with Martine Rothblatt, Rick Dale, and Ray Kurzweil	Oct 2025
<b>Project Nightingale NSF Workshop on Data Visualization Understanding</b> , <i>Stanford</i> Emerging strategies for writing accessibility descriptions for data visualizations	July 2025
<b>Getty Museum AI Seminar</b> , <i>Getty Museum, LA</i> AI for Visual Media Accessibility: Opportunities and Challenges	July 2025
<b>CLASP Seminar at Gothenburg University</b> , <i>virtual</i> Towards Pragmatic Visual Description Generation	April 2025
<b>CMU Accessibility Lunch Seminar</b> , <i>virtual</i> How communicative principles (should) shape human-centered AI for nonvisual accessibility	March 2025
<b>UCLA Psycholinguistics Colloquium</b> , <i>UCLA</i> Towards Pragmatic Visual Description Generation	Oct 2024
<b>CVPR: VizWiz Grand Challenge Workshop</b> , <i>Seattle</i> How communicative principles (should) shape human-centered AI for nonvisual accessibility	June 2024
<b>CVPR: New Frontiers for Zero-shot Image Captioning Evaluation Workshop</b> , <i>Seattle</i> Redefining image captioning based on communicative principles	June 2024
<b>Workshop on The Future of Accessible Work &amp; Generative AI</b> , <i>UC Irvine</i> Defining image-based text generation as an accessibility task in AI	June 2024
<b>UCLA Social Psychology Colloquium</b> , <i>UCLA</i> Situating vision-language AI models in social tasks: Opportunities and challenges in image accessibility	May 2024
<b>Purdue University Dept. of Communication</b> , <i>Purdue University</i> Communicating in a visual world: A challenge and opportunity for AI	April 2024

<b>Wikimedia Research Showcase</b> , <i>virtual</i> Towards image accessibility solutions grounded in communicative principles	April 2024
<b>University of Michigan School of Information</b> , <i>University of Michigan</i> Making the visual, non-visually accessible: Towards human-centered AI systems for accessibility	Feb 2024
<b>UCLA Dept. of Psychology's Cognitive Forum</b> , <i>UCLA</i> Using vision-language models to describe the visual world: A communicative problem	Feb 2024
<b>MIT Computational Psycholinguistics Lab</b> , <i>MIT</i> Towards pragmatic visual description generation	Dec 2023
<b>Berkeley AI Research (BAIR) Workshop</b> , <i>virtual</i> How communicative goals (should) shape image-based text generation	Oct 2023
<b>Allen Institute for AI</b> , <i>virtual</i> Image-based natural language generation for increasing equitable access to visual content	June 2023
<b>ELLIS Institute, Tübingen</b> , <i>virtual</i> Communicating in a visual world: A challenge and opportunity for AI	Mar 2023
<b>UCLA Department of Communication</b> , <i>UCLA</i> Communicating in a visual world: A challenge and opportunity for AI	Jan 2023
<b>Tübingen University Colloquium</b> , <i>virtual</i> Towards context-sensitive image descriptions with a purpose	Jan 2022
<b>AI4All</b> , Stanford Chapter, <i>virtual</i> Computational models of language comprehension	July 2020

## Professional Service

Action Editor for Transactions of the Association for Computational Linguistics (TACL)	2025 – 2027
Area Chair for Conference on Language Modeling (COLM)	2025 – 2026
Reviewer for Transactions of the Association for Computational Linguistics (TACL)	2023 – 2026
Reviewer for Association for Computational Linguistics (ARR/ACL/EMNLP)	2020 – 2026
Reviewer for the Wikimedia Research Funds	2026
Reviewer for the German Science Foundation (DFG)	2026
Reviewer for WikiWorkshop 2025	2025
Reviewer for ACL Student Research Workshop (SRW)	2025
Area Chair for the International Conference on Computational Linguistics (COLING)	2024
Reviewer for Conference on Language Modeling (COLM)	2024
Reviewer for Psychonomic Bulletin & Review	2023 – 2024
Reviewer for PNAS	2023 – 2024
Reviewer for NeurIPS: Datasets and Benchmarks	2022 – 2024
Reviewer for Neural Information Processing Systems (NeurIPS)	2023 – 2024
Reviewer for Annual Conference of Cognitive Science (CogSci)	2022, 2024
Reviewer for Journal of Pragmatics	2023
Reviewer for NeurIPS: Meaning in Context	2021
Co-organizer for EMNLP 2026: NLP for Positive Impact Workshop	2026

## University & Departmental Service

Member of Expert Committee on AI in Teaching, UCLA	2025 –
Communication High-Performance Computing Committee (Chair), UCLA	2025 –

Undergraduate Admissions Committee for Communication, UCLA	2025–
Legislative Assembly Representative, UCLA	2024–
UCLA NLP Seminar Co-organizer, UCLA	2024–
Departmental Statistical Sequence Ad Hoc Committee, UCLA	2024–2025
Departmental Awards Committee Member, UCLA	2024–2025
Graduate Teaching Assistant Mentor, Stanford	2023–2024
Member of the Summer research program internship committee CSLI, Stanford	2020–2022
Member of the Stanford NLP group application program CLiPS, Stanford	2020–2022
Graduate student representative, Linguistics, Stanford	2020–2021
Linguistics Lab TA, Stanford	2019–2020
Member of the faculty search committee, Osnabrück University	2017–2018