Chase Stokes

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I am a mixed methods researcher examining the challenges and opportunities presented by communicating data and information. My work is situated at the intersection of language and visualization, specifically considering the use and impact of text elements in visual designs.

EDUCATION

PhD. in Information Science | University of California Berkeley   *2021 – present*
   Dissertation: Combining Text and Visuals for Effective Data Communication
   Advisor: Professor Marti Hearst

Northwestern University   *2017 - 2021*
   B.A. in Psychology and Gender and Sexuality Studies | GPA: 3.9/4.0, Magna Cum Laude
   Advisor: Professor Steven Franconeri

RESEARCH EXPERIENCE

University of California Berkeley | Berkeley, CA   *2021 – present*
Graduate Student Researcher

Northeastern University | Oakland, CA   *Summer 2024*
Temporary Research Assistant

Tableau Research at Salesforce | Palo Alto, CA   *Summer 2023*
Research Intern

Northwestern University | Evanston, IL   *2018 – 2021*
Undergraduate Research Assistant

The Family Institute at Northwestern University   *2019-2021*
Undergraduate Research Assistant

PUBLICATIONS

Stokes, C., Hu, C., & Hearst, M.A. (2024). "It's a Good Idea to Put It Into Words": Writing `Rudders' in the Initial Stages of Visualization Design. *IEEE Transactions on Visualization and Computer Graphics.*

Stokes, C., Sanker, C., Cogley, B., & Setlur, V. (2024). From Delays to Densities: Exploring Data Uncertainty through Speech, Text, and Visualization. In *Computer Graphics Forum, 43*(3), e15100. https://doi.org/10.1111/cgf.15100

Stokes, C., Sanker, C., Cogley, B., & Setlur, V. (2024). Mixing Modes: Active and Passive Integration of Speech, Text, and Visualization for Communicating Data Uncertainty. *Computer Graphics Forum*. https://doi.org/10.2312/evs.20241072

Stokes, C., Bearfield, C. X., & Hearst, M.A. (2023). The Role of Text in Visualizations: How Annotations Shape Perceptions of Bias and Influence Predictions. *IEEE Transactions on*

Visualization and Computer Graphics, 30(10), 6787-6800.
https://doi.org/10.1109/tvcg.2023.3338451

Bearfield, C. X., **Stokes, C.,** Lovett, A., & Franconeri, S. (2023). What Does the Chart Say? Grouping Cues Guide Viewer Comparisons and Conclusions in Bar Charts. *IEEE Transactions on Visualization and Computer Graphics, 30*(8), 5097-5110. https://doi.org/10.1109/TVCG.2023.3289292

Stokes, C., Setlur, V., Cogley, B., Satyanarayan, A., and Hearst, M.A. (2022). Striking a Balance: Reader Takeaways and Preferences when Integrating Text and Charts. *IEEE Transactions on Visualization and Computer Graphics, 29*(1), 1233-1243. https://doi.org/10.1109/TVCG.2022.3209383

Xiong, C., **Stokes, C.,** Kim, Y. S., & Franconeri, S. (2022). Seeing What You Believe or Believing What You See? Belief Biases Correlation Estimation. *IEEE Transactions on Visualization and Computer Graphics, 29*(1), 493-503. https://doi.org/10.1109/TVCG.2022.3209405

WORKSHOP PAPERS

Stokes, C., Sanker, C., Cogley, B., and Setlur, V. (2024). Voicing Uncertainty: How Speech, Text, and Visualizations Influence Decisions with Data Uncertainty, in Uncertainty Workshop, *IEEE Transactions on Visualizations and Computer Graphics*

Stokes, C., and Hearst, M.A. (2022). Why More Text is (Often) Better: Themes from Reader Preferences for Integration of Charts and Text, in NLVIZ Workshop, *IEEE Transactions on Visualization and Computer Graphics.*

Stokes, C., and Hearst, M.A. (2021). Give Text A Chance: Advocating for Equal Consideration for Language and Visualization, in NLVIZ Workshop, *IEEE Transactions on Visualization and Computer Graphics.*

POSTERS AND PRESENTATIONS

Stokes, C. (2024). Combining Text and Visuals for Effective Data Communication. Presentation at the Doctoral Colloquium at 2024 IEEE VIS Conference.

Stokes, C. (2024). Writing as a Tool in Visualization Design. Presentation at the Fall 2024 EPIC Lab Advance.

Stokes, C., Xiong, C., & Hearst, M.A. (2022, Nov). Driving Reader Interpretations with Text Annotations in Data Visualizations. Poster presented at Society for Judgement and Decision Making, San Diego, CA.

Xiong, C., **Stokes, C.,** Lovett, A., & Franconeri, S. (2021, May). Visual Salience and Grouping Cues Guide Relation Perception in Visual Data Displays. Poster presented at Virtual Vision Sciences Society.

Stokes, C., Xiong, C., & Franconeri, S. (2020, May). Seeing What You Want: Prior Belief Biases Perception of Correlation in Scatterplots. Poster presented at Virtual 32nd APS Annual Convention, Chicago, IL.

Callahan, C., **Stokes, C.,** & Lawrence, E. (2020, May). Modifying the Relationship Quality Interview for Sexual and Gender Minority Couples. Accepted Poster Presentation at the 8th Annual LGBTQ Research Symposium at the University of Illinois at Urbana-Champaign. (Conference canceled due to COVID-19)

TEACHING EXPERIENCE

University of California Berkeley | Berkeley, CA   *Spring 2023*
Graduate Student Instructor
    INFO 247: Information Visualization and Presentation

FELLOWSHIPS, AWARDS, AND GRANTS

Fellowships
NSF Graduate Research Fellowship Program Recipient   *2023 – present*
Ford Foundation Predoctoral Fellowship Honorable Mention   *2023*
School of Information Fellowship for Doctoral Study   *2021 – 2022*

Awards
National Merit Finalist   *2017 – 2021*
Grants
Northwestern Summer Undergraduate Research Grant ($3,500)   *Summer 2020*
    Visual Grouping Affords Different Comparison Patterns in Visualized Data
Northwestern Academic Year Research Grant ($1,000)   *2020*
    Variations in Conclusions Afforded by Chart Type

STUDENT LEADERSHIP ROLES

Underrepresented Applicant Feedback Program   *2023*
Coordinated initiative to provide feedback to 50+ underrepresented PhD. applicants

NorCal Visualization Group Organizer   *2022 – 2023*
Organized 6 unique speakers for hour-long seminars

STUDENT MEMBERSHIPS

Association for Computing Machinery, Student Member   *2021 – present*
Psychonomic Society, Student Member   *2021 – present*
Cognitive Science Society, Student Member   *2021 – present*
Society for Judgment and Decision Making, Student Member   *2021 – 2023*

AD-HOC REVIEWS

ACM Computer-Human Interaction (CHI)   *2022 - 2024*
Transactions on Visualization and Computer Graphics (TVCG)   *2023 - 2024*
Ocean and Coastal Research   *2023*
Journal of Official Statistics   *2023*
IEEE VIS Short Papers   *2022*
Creativity & Cognition   *2021*

SERVICE AND OUTREACH

Student Volunteer at IEEE VIS   *2022*

REFERENCES PROVIDED UPON REQUEST