

# List of Papers

Data Science and Visualization 2024

University of Bremen

1. Oscar Alvarado and Annika Waern. 2018. Towards Algorithmic Experience: Initial Efforts for Social Media Contexts. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). Association for Computing Machinery, New York, NY, USA, Paper 286, 1–12. <https://dl.acm.org/doi/abs/10.1145/3173574.3173860>
2. Oscar Alvarado, Hendrik Heuer, Vero Vanden Abeele, Andreas Breiter, and Katrien Verbert. 2020. Middle-Aged Video Consumers' Beliefs About Algorithmic Recommendations on YouTube. Proc. ACM Hum.-Comput. Interact. 4, CSCW2, Article 121 (October 2020), 24 pages. <https://doi.org/10.1145/3415192>
3. Marco Tulio Ribeiro, Sameer Singh, and Carlos Guestrin. 2016. "Why Should I Trust You?": Explaining the Predictions of Any Classifier. In Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD '16). Association for Computing Machinery, New York, NY, USA, 1135–1144. <https://doi.org/10.1145/2939672.2939778>
4. Ilias Flaounas, Omar Ali, Thomas Lansdall-Welfare, Tijl De Bie, Nick Mosdell, Justin Lewis, and Nello Cristianini. 2013. Research Methods In The Age Of Digital Journalism. Digital Journalism 1, 1 (2013), 102–116. DOI: [10.1080/21670811.2012.714928](https://doi.org/10.1080/21670811.2012.714928).
5. Justin Grimmer. We Are All Social Scientists Now: How Big Data, Machine Learning, and Causal Inference Work Together. PS: Political Science & Politics. 2015;48(1):80–3. DOI: [10.1017/S1049096514001784](https://doi.org/10.1017/S1049096514001784)
6. David Lazer, Alex Pentland, Lada Adamic, Sinan Aral, Albert-László Barabási, Devon Brewer, Nicholas Christakis, Noshir Contractor, James Fowler, Myron Gutmann, Tony Jebara, Gary King, Michael Macy, Deb Roy, and Marshall Van Alstyne. 2009. Computational Social Science. Science 323, 5915 (2009), 721–723. DOI: [10.1126/science.1167742](https://doi.org/10.1126/science.1167742)
7. Hanna Wallach. 2018. Computational Social Science != Computer Science + Social Data. Commun. ACM 61, 3 (Feb. 2018), 42–44. DOI: [10.1145/3132698](https://doi.org/10.1145/3132698)
8. Hendrik Heuer, Hendrik Hoch, Andreas Breiter, and Yannis Theocharis. 2021. Auditing the Biases Enacted by YouTube for Political Topics in Germany. In Proceedings of Mensch und Computer 2021 (MuC '21). Association for Computing Machinery, New York, NY, USA, 456–468. <https://doi.org/10.1145/3473856.3473864>
9. Shamika Klassen and Casey Fiesler. (2022). "This Isn't Your Data, Friend": Black Twitter as a Case Study on Research Ethics for Public Data. Social Media + Society, 8(4). DOI: [10.1177/20563051221144317](https://doi.org/10.1177/20563051221144317)
10. Casey Fiesler and Nicholas Proferes. (2018). "Participant" Perceptions of Twitter Research Ethics. Social Media + Society, 4(1). DOI: [10.1177/2056305118763366](https://doi.org/10.1177/2056305118763366)
11. A. Satyanarayan, D. Moritz, K. Wongsuphasawat and J. Heer, "Vega-Lite: A Grammar of Interactive Graphics," in IEEE Transactions on Visualization and Computer Graphics, vol. 23, no. 1, pp. 341–350, Jan. 2017, doi: [10.1109/TVCG.2016.2599030](https://doi.org/10.1109/TVCG.2016.2599030).

12. Michael Bostock, Vadim Ogievetsky and Jeffrey Heer, "D<sup>3</sup> Data-Driven Documents," in IEEE Transactions on Visualization and Computer Graphics, vol. 17, no. 12, pp. 2301-2309, Dec. 2011, DOI: [10.1109/TVCG.2011.185](https://doi.org/10.1109/TVCG.2011.185).
13. Jessica Hullman and Nick Diakopoulos, "Visualization Rhetoric: Framing Effects in Narrative Visualization," in IEEE Transactions on Visualization and Computer Graphics, vol. 17, no. 12, pp. 2231-2240, Dec. 2011, doi: [10.1109/TVCG.2011.255](https://doi.org/10.1109/TVCG.2011.255).
14. J. Hullman, X. Qiao, M. Correll, A. Kale and M. Kay, "In Pursuit of Error: A Survey of Uncertainty Visualization Evaluation," in IEEE Transactions on Visualization and Computer Graphics, vol. 25, no. 1, pp. 903-913, Jan. 2019, DOI: [10.1109/TVCG.2018.2864889](https://doi.org/10.1109/TVCG.2018.2864889).
15. Tamara Munzner, "A Nested Model for Visualization Design and Validation," in IEEE Transactions on Visualization and Computer Graphics, vol. 15, no. 6, pp. 921-928, Nov.-Dec. 2009, DOI: [10.1109/TVCG.2009.111](https://doi.org/10.1109/TVCG.2009.111).
16. Michael Sedlmair, Miriah Meyer and Tamara Munzner, "Design Study Methodology: Reflections from the Trenches and the Stacks," in IEEE Transactions on Visualization and Computer Graphics, vol. 18, no. 12, pp. 2431-2440, Dec. 2012, DOI: [10.1109/TVCG.2012.213](https://doi.org/10.1109/TVCG.2012.213)
17. Crystal Lee, Tanya Yang, Gabrielle D Inchoco, Graham M. Jones, and Arvind Satyanarayan. 2021. Viral Visualizations: How Coronavirus Skeptics Use Orthodox Data Practices to Promote Unorthodox Science Online. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, Article 607, 1–18. DOI: [10.1145/3411764.3445211](https://doi.org/10.1145/3411764.3445211)
18. Vidya Setlur, Sarah E. Battersby, Melanie Tory, Rich Gossweiler, and Angel X. Chang. 2016. Eviza: A Natural Language Interface for Visual Analysis. In Proceedings of the 29th Annual Symposium on User Interface Software and Technology (UIST '16). Association for Computing Machinery, New York, NY, USA, 365–377. DOI: [10.1145/2984511.2984588](https://doi.org/10.1145/2984511.2984588)
19. Justin Talbot, Bongshin Lee, Ashish Kapoor, and Desney S. Tan. 2009. EnsembleMatrix: interactive visualization to support machine learning with multiple classifiers. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09). Association for Computing Machinery, New York, NY, USA, 1283–1292. DOI: [10.1145/1518701.1518895](https://doi.org/10.1145/1518701.1518895)
20. Bongshin Lee, Petra Isenberg, Nathalie Henry Riche and Sheelagh Carpendale, "Beyond Mouse and Keyboard: Expanding Design Considerations for Information Visualization Interactions," in IEEE Transactions on Visualization and Computer Graphics, vol. 18, no. 12, pp. 2689-2698, Dec. 2012, DOI: [10.1109/TVCG.2012.204](https://doi.org/10.1109/TVCG.2012.204)
21. Arjun Srinivasan, Nikhila Nyapathy, Bongshin Lee, Steven M. Drucker, and John Stasko. 2021. Collecting and Characterizing Natural Language Utterances for Specifying Data Visualizations. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 464, 1–10. DOI: [10.1145/3411764.3445400](https://doi.org/10.1145/3411764.3445400)
22. Saleema Amershi, Dan Weld, Mihaela Vorvoreanu, Adam Fourney, Besmira Nushi, Penny Collisson, Jina Suh, Shamsi Iqbal, Paul N. Bennett, Kori Inkpen, Jaime Teevan, Ruth Kikin-Gil, and Eric Horvitz. 2019. Guidelines for Human-AI Interaction. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, Paper 3. DOI: [10.1145/3290605.3300233](https://doi.org/10.1145/3290605.3300233)

23. Mark Weiser. 1999. The computer for the 21st century. SIGMOBILE Mob. Comput. Commun. Rev. 3, 3 (July 1999), 3–11. DOI: [10.1145/329124.329126](https://doi.org/10.1145/329124.329126)
24. Chatzimpampas, A., Martins, R. M., Jusufi, I., & Kerren, A. (2020). A survey of surveys on the use of visualization for interpreting machine learning models. Information Visualization, 19(3), 207-233. DOI: [10.1177/1473871620904671](https://doi.org/10.1177/1473871620904671)
25. Franconeri, S. L., Padilla, L. M., Shah, P., Zacks, J. M., & Hullman, J. (2021). The Science of Visual Data Communication: What Works. Psychological Science in the Public Interest, 22(3), 110-161. DOI: [10.1177/15291006211051956](https://doi.org/10.1177/15291006211051956)
26. T. Spinner, U. Schlegel, H. Schäfer and M. El-Assady, "explAIner: A Visual Analytics Framework for Interactive and Explainable Machine Learning," in IEEE Transactions on Visualization and Computer Graphics, vol. 26, no. 1, pp. 1064-1074, Jan. 2020, DOI: [10.1109/TVCG.2019.2934629](https://doi.org/10.1109/TVCG.2019.2934629).
27. H. Lam, E. Bertini, P. Isenberg, C. Plaisant and S. Carpendale, "Empirical Studies in Information Visualization: Seven Scenarios," in IEEE Transactions on Visualization and Computer Graphics, vol. 18, no. 9, pp. 1520-1536, Sept. 2012, DOI: [10.1109/TVCG.2011.279](https://doi.org/10.1109/TVCG.2011.279)
28. Isenberg, P., Elmqvist, N., Scholtz, J., Cernea, D., Kwan-Liu Ma, & Hagen, H. (2011). Collaborative visualization: Definition, challenges, and research agenda. Information Visualization, 10(4), 310-326. DOI: [doi.org/10.1177/1473871611412817](https://doi.org/10.1177/1473871611412817)
29. Amy X. Zhang, Michael Muller, and Dakuo Wang. 2020. How do Data Science Workers Collaborate? Roles, Workflows, and Tools. Proc. ACM Hum.-Comput. Interact. 4, CSCW1, Article 22 (May 2020), 23 pages. DOI: [10.1145/3392826](https://doi.org/10.1145/3392826)
30. A. Roy, D. Raghunandan, N. Elmqvist and L. Battle, "How I Met Your Data Science Team: A Tale of Effective Communication," 2023 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Washington, DC, USA, 2023, pp. 199-208, DOI: [10.1109/VL-HCC57772.2023.00032](https://doi.org/10.1109/VL-HCC57772.2023.00032).
31. E. Newburger and N. Elmqvist, "Visualization According to Statisticians: An Interview Study on the Role of Visualization for Inferential Statistics," in IEEE Transactions on Visualization and Computer Graphics, vol. 30, no. 1, pp. 230-239, Jan. 2024, DOI: [10.1109/TVCG.2023.3326521](https://doi.org/10.1109/TVCG.2023.3326521).
32. A. Crisan, B. Fiore-Gartland and M. Tory, "Passing the Data Baton: A Retrospective Analysis on Data Science Work and Workers," in IEEE Transactions on Visualization and Computer Graphics, vol. 27, no. 2, pp. 1860-1870, Feb. 2021, DOI: [10.1109/TVCG.2020.3030340](https://doi.org/10.1109/TVCG.2020.3030340).
33. Matthew Brehmer, Michael Sedlmair, Stephen Ingram, and Tamara Munzner. 2014. Visualizing dimensionally-reduced data: interviews with analysts and a characterization of task sequences. In Proceedings of the Fifth Workshop on Beyond Time and Errors: Novel Evaluation Methods for Visualization (BELIV '14). Association for Computing Machinery, New York, NY, USA, 1–8. DOI: [10.1145/2669557.2669559](https://doi.org/10.1145/2669557.2669559)