

Dr Ryan Heuser

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EDUCATION

Stanford University

Ph.D., English, 2019

Dissertation: *Abstraction: A Literary History*

Committee: John Bender, Mark Algee-Hewitt, Mark Greif

M.A., English, 2013

University of Florida

B.A., English (summa cum laude), 2008

EMPLOYMENT

University of Cambridge, Cambridge Digital Humanities

Assistant Professor of Digital Humanities, 2024-ongoing

University of Cambridge, King's College

Official Fellow, 2024-ongoing

King's College London, King's Digital Lab

Sr Research Software Engineer, 2024-2024

Princeton University, Center for Digital Humanities

Research Software Engineer II, 2022-2024

University of Cambridge, King's College

Junior Research Fellow, 2019-2022

Stanford University, Literary Lab

Associate Research Director, 2011-2015

Stanford University, Center for Spatial and Textual Analysis (CESTA)

Humanities Research Programmer, 2010-2011

PUBLICATIONS

“Cultural Collapse: Toward a Generative Formalism for AI Cultural Production.” *Anthology of Computers and the Humanities* 3 (2025).

“Generative Aesthetics: On formal stuckness in AI verse.” *Journal of Cultural Analytics* 10.3 (2025), special issue on Computational Formalism.

“Computing Koselleck: Modeling Semantic Revolutions, 1720-1960.” Explorations in the Digital History of Ideas. Ed. Pete de Bolla. Cambridge University Press (2024).

“Enlightenment Entanglements of Improvement and Growth.” Explorations in the Digital History of Ideas. Ed. Pete de Bolla. Cambridge University Press. (2024). (Co-authored with Pete de Bolla and Mark Algee-Hewitt).

“Mapping London’s Emotions.” *New Left Review* 101 (2016): 63-91. (Co-authored with Franco Moretti and Erik Steiner).

“Mapping the Emotions of London in Fiction, 1700-1900: A Crowdsourcing Experiment.” *Literary Mapping in the Digital Age*. Ed. David Cooper, Chris Donaldson, and Patricia Murrieta-Flores. Ashgate. 2016. (Co-authored with Mark Algee-Hewitt, Van Tran, Annalise Lockhart, and Erik Steiner).

“Learning to Read Data: Bringing out the Humanistic in the Digital Humanities.” *Victorian Studies* 54.1 (2011): 79-86. (Co-authored with Long Le-Khac).

WORK IN PROGRESS

Abstraction: A Literary History. (expected completion 2026).

“Antimetricality and the Rhythms of Prose.” *Language*. (Revising; co-authored with Arto Anttila and Paul Kiparsky).

“Abstract Realism.” (Journal article)

GRANTS IN PROGRESS

Toward a new Collaborative Computational Project for Arts, Humanities, and Culture research (CCP-AHC). Three-year UKRI-funded project. Advisory group. 2025-ongoing.

COMPLETED GRANTS

WhatEvery1Says (WE1S). Directed by Alan Liu at the University of California–Santa Barbara. Funded by the Andrew W. Mellon Foundation. Advisory group. 2018-2019.

Textual Geographies. Directed by Matthew Wilkens at the University of Notre Dame, funded by the National Endowment for the Humanities. Researcher. 2017-2018.

Crowdsourcing in the Humanities. Directed by Zephyr Frank at Stanford University, Center for Spatial and Textual Analysis. Funded by the Andrew W. Mellon Foundation. Researcher. 2011-2014.

PRESS COVERAGE

“How Data Analysis Can Enrich the Liberal Arts.” *The Economist*. Dec 19, 2020.

Jennifer Schluesser. “The Book Crunchers.” *The New York Times*. Oct 30, 2017.

Sarah Laskow. “Why the London of British Literature Barely Changed for 200 Years.” *Atlas Obscura*. Feb 2, 2017.

Emily Matchar. “Stanford Researchers Map the Feelings Associated With Different Parts of London.” *Smithsonian Magazine*. Apr 4, 2017.

Ralph Blumenthal. “Stanford Literary Lab Maps ‘Emotions in Victorian London’.” *The New York Times*. Apr 13, 2015.

LITERARY LAB PAMPHLETS

Reprinted in *Canon/Archive: Studies in Quantitative Formalism from the Stanford Literary Lab*, ed. Franco Moretti (New York: n+1, 2017)

“The Emotions of London.” *Stanford Literary Lab* 13 (2016). (Co-authored with Franco Moretti and Erik Steiner).

“Canon/Archive: Large-scale Dynamics in the Literary Field.” *Stanford Literary Lab* 11 (2016). (Co-authored with Mark Algee-Hewitt, Sarah Allison, Marissa Gemma, Franco Moretti, and Hannah Walser).

“On Paragraphs: Scale, Themes, and Narrative Form.” *Stanford Literary Lab* 10 (2015). (Co-authored with Mark Algee-Hewitt and Franco Moretti).

“Style at the Scale of the Sentence.” *Stanford Literary Lab* 5 (2013). (Co-authored with Sarah Allison, Marissa Gemma, Franco Moretti, Amir Tevel, and Irena Yambolieva).

“A Quantitative Literary History of 2,958 Nineteenth-Century British Novels: The Semantic Cohort Method.” *Stanford Literary Lab* 4 (2012). (Co-authored with Long Le-Khac).

“Quantitative Formalism: An Experiment.” *Stanford Literary Lab* 1 (2011). (Co-authored with Sarah Allison, Matthew Jockers, Franco Moretti, and Michael Witmore).

TEACHING

Instructor

- “Critical AI” (Cambridge Digital Humanities MPhil, 2025-ongoing)
- “Distant Reading” (CDH MPhil, 2025-ongoing)
- “Critical Technical Practice” (CDH MPhil, 2025-ongoing)
- “Practical Criticism and Critical Practice” (Cambridge English, 2020-ongoing)
- “Python for Poets” (Princeton, 2023)
- “Automating the Bechdel Test: Computing Gender Bias across Media” (CDH, 2022)
- “Literary Text Mining” (Stanford English, 2019)

Co-Instructor

- “Ballad, Sonnet, Lyric, Line: The Stories of Poetic Forms” (Princeton graduate English course, 2023)

Teaching Assistant

- “Humanities and Data Science Faculty Institute” (Princeton)
- “Introduction to English II: Milton and Melville” (Stanford English)
- “Shakespeare” (Stanford English)

Workshop Instructor

- “Introduction to Word Embedding Models for the Humanities” (University of Trier)
- “Introduction to Python for Digital Humanities” (Stanford Center for Spatial and Textual Analysis)

HONORS AND AWARDS

Alden Dissertation Prize, Stanford University, 2019. Awarded to the best dissertation in the English Department that year.

Paul Fortier Prize, Alliance of Digital Humanities Organizations, 2017.

INVITED TALKS

- “Exploration in the Digital History of Ideas.” Open Lecture Series, Cambridge Digital Humanities. 2025.
- “Computing Koselleck: Modelling Semantic Revolutions, 1720–1960.” Computational Humanities Research Group, King’s College London. 2024.
- “Cultures of Abstraction: Artificial Intelligence and Distant Reading.” Observatoire des Textes, des Idées et des Corpus. Sorbonne University. 2021.
- “Computing Intellectual History: Word Embedding Models and Lexical Semantic Change, 1720-1960.” University of Birmingham Department of English Language and

- Linguistics. 2021.
- “*Sattelzeit* and Semantic Change.” Revolutionary Translations; Translators as Revolutionaries. King’s College London. 2020.
- “Abstract Realism.” Eighteenth-Century and Romantic Studies Graduate Seminar. University of Cambridge. 2020.
- “Computational Keywords: Historical Semantics and Cultural History, 1660-1830.” University of Trier. 2018.
- “Computational Keywords: Abstractions of Value, 1750-1850.” Yale DHLab and the 18th/19th-Century Colloquium. 2018.
- “Word Vectors in the Eighteenth Century.” Institute for Pure and Applied Mathematics: Workshop IV: Mathematical Analysis of Cultural Expressive Forms: Text Data. Los Angeles. 2016.
- “Affect and Space as Mediating Technologies: Reflections from and on the ‘Emotions of London’ Literary Lab Project.” Cultural Analytics. Chicago. 2015.

CONFERENCE PRESENTATIONS

- “Cultural Collapse: Toward a Generative Formalism for AI Cultural Production.” Computational Humanities Research. Luxembourg. 2025.
- “Samuel Johnson and the Algebra of Syntax.” American Society for Eighteenth-Century Studies. Toronto. 2024.
- “Historical Prosody and Mechanical Form.” American Comparative Literature Association. Montreal. 2024.
- “The Concrete, the Particular and the Punctilio.” Western Society for Eighteenth-Century Studies. Los Angeles. 2023.
- “Abstract Realism.” American Society for Eighteenth-Century Studies. Baltimore, MD. 2022.
- “Prose Rhythm and Antimetricality.” Linguistics Society of America. Washington, DC, USA. 2022. (with Arto Anttila and Paul Kiparsky).
- “The Rise and Fall of Antimetricality.” Bridging Gaps, Creating Links: The Qualitative-Quantitative Interface in the Study of Literature. Padua, Italy. 2018. (with Paul Kiparsky).
- “Word Vectors in the Eighteenth Century.” Digital Humanities. Montreal. 2017. [*Awarded Paul Fortier Prize*]
- “Building Blocks of Fiction: Literary Lexical Bundles, 1700-1900.” Digital Humanities. Krakow. 2016. (with Marissa Gemma).
- “Associationism, Analogy, and Computationalism.” Annual Meeting of the Western Society for Eighteenth-Century Studies (WSECS). Santa Barbara. 2017.
- “ELIZA, Virtual Therapist: or, Notes toward a Virtual Humanities.” Modern Language Association. Philadelphia. 2017.
- “Knowledge Networks, Juxtaposed: Disciplinarity in the *Encyclopédie* and Wikipedia.” Digital Humanities. Sydney. 2015. (with Mark Algee-Hewitt and John Bender).

- “Phonological and Metrical Variation across Genres.” Annual Meeting of Phonology. Vancouver. 2015. (with Arto Anttila).
- “Phonological and Metrical Variation across Genres.” Linguistics Society of America. Washington, D.C. 2015. (with Arto Anttila).
- “Virtual Poetics: A Thought Experiment.” SyncDH. Santa Barbara. 2015.
- “Mapping the Emotions of London in Fiction, 1700-1900: A Crowdsourcing Experiment.” Digital Humanities. Sydney. 2015. (with Mark Algee-Hewitt, Van Tran, Annalise Lockhart, and Erik Steiner).
- “Tranhistorical Poetry Project Phase II: Metrical Form.” Digital Humanities. Lausanne. 2014. (with Mark Algee-Hewitt, Maria Kraxenberger, J.D. Porter, Jonathan Sensenbaugh, and Justin Tackett).

LANGUAGES AND SKILLS

English: fluent/native

German: proficient reading, writing, and speaking

French: proficient reading

Programming: fluent in Python; proficient in R, Java, javascript, PHP, other languages

Data science: fluent in NLP, data visualization and analysis; proficient in machine learning