

# Douglas R. Guilbeault

[douglas.guilbeault@haas.berkeley.edu](mailto:douglas.guilbeault@haas.berkeley.edu) | [@DzGuilbeault](https://twitter.com/DzGuilbeault) | 1+ (267) 934 1570

## Professional

### **University of California, Berkeley (2020 – present)**

Assistant Professor – Management of Organizations, Haas Business School

## Education

Ph.D., University of Pennsylvania (2015 – 2020), The Annenberg School for Communication

Dissertation: “The Social Network Dynamics of Category Formation”

M.A., University of British Columbia (2013 – 2015), with Distinction (Cognitive Linguistics & Rhetoric)

Thesis: “Multimodal Rhetorical Figures”

B.A., University of Waterloo (2009 – 2013), with Distinction (Philosophy, Rhetoric, and Cognitive Science)

Thesis: “Consubstantial Speech Genres and Citizens Band Radio”

## Certificates

The Santa Fe Summer Institute in Complex Systems, New Mexico, USA. 2019.

SICSS (Summer Institute in Computational Social Science), Duke University, USA. 2018.

## Peer Reviewed Articles

**Guilbeault, Douglas**, Andrea Baronchelli, and Damon Centola. 2021. [Experimental Evidence for Scale Induced Category Convergence across Populations](#). *Nature Communications* 12 (327). **\*Recipient of Computational Modeling Prize in Applied Cognition from the Cognitive Science Society.**

Desikan, Bhargav, Tasker Hull, Ethan Nadler, **Douglas Guilbeault**, Aabir Abubaker, Mark Chu, Ruggiero Lo Sardo. 2020. [Compsyn: Perceptually Grounded Word Embeddings with Color](#). *Proceedings of the 28th International Conference on Computational Linguistics (COLING @ ACL)*. 1744–1751.

**Guilbeault, Douglas**, Ethan Nadler, Mark Chu, Ruggiero Lo Sardo, Aabir Abubaker, and Bhargav Desikan. 2020. [Color Associations in Abstract Semantic Domains](#). *Cognition* (201): 104306.

**Guilbeault, Douglas**, and Damon Centola. 2020. [Networked Collective Intelligence Improves Dissemination of Scientific Information Regarding Smoking Risks](#). *PLoS ONE* 15(2): e0227813.

**Guilbeault, Douglas**, Joshua Becker, and Damon Centola. 2018. [Social learning and partisan bias in the interpretation of climate trends](#). *Proceedings of the National Academy of the Sciences* 115(39): 9714-9719. **\*Best Paper Award, International Conference on Computational Social Science.**

**Guilbeault, Douglas**. 2018. [Digital Marketing in the Disinformation Age](#). *The Journal of International Affairs* 71(1): 33-43.

Gorwa, Rob, and **Douglas Guilbeault**. 2018. [Unpacking the Social Media Bot: A Typology to Guide Research and Policy](#). *Policy & Internet*. **\*Best Paper Award, International Communication Association.**

**Guilbeault, Douglas**, Joshua Becker, and Damon Centola. 2018. [Complex Contagions: A Decade in Review](#). In S. Lehmann & Y. Ahn (Eds.), *Spreading Dynamics in Social Systems*. Springer Nature. pp. 3-25.

**Guilbeault, Douglas**. 2017. [How Politicians Express Different Viewpoints in Gesture and Speech Simultaneously](#). *The Journal of Cognitive Linguistics* 28(3): 417-447.

**Guilbeault, Douglas**. 2016. [Growing Bot Security: An Ecological View of Bot Agency](#). *The International Journal of Communication* 10: 5003-5021.

## Under Revision

**Guilbeault, Douglas** and Damon Centola. 2020. Topological Measures for Maximizing the Spread of Complex Contagions. *Nature Communications* (Revise and Resubmit).

Centola, Damon, **Douglas Guilbeault**, Urmimala Sarkar, Elaine Khoong, and Jingwen Zhang. 2020. The Reduction of Race and Gender Bias in Clinical Networks. *Nature Communications* (Revise and Resubmit).

Becker, Joshua, **Douglas Guilbeault**, and Ned Smith. 2020. The Crowd Classification Problem. *Management Science* (Revise and Resubmit).

Guilbeault, Douglas, Samuel Woolley, and Joshua Becker. 2020. Probabilistic Social Learning Improves the Public's Detection of Misinformation. *PLoS One*. (Revise and Resubmit).

### **Journalism (Selected)**

Gorwa, R & Douglas Guilbeault. 2017. [Tinder Nightmares: The Promise and Peril of Political Bots](#). *Wired*.

Woolley, S. & Douglas Guilbeault. 2017. [What to watch for when America's tech giants testify on Russian hacking today](#). *Quartz*.

Guilbeault, Douglas & Samuel Woolley. 2016. [How Twitter Bots are Shaping the Election](#). *The Atlantic*.

### **Book Chapters**

Guilbeault, Douglas & Joel Finkelstein. 2018. [Human-bot Ecologies](#). In Z. Papacharissi (Ed.), *A Networked Self: Human Augmentics, Artificial Intelligence, Sentience*. Routledge.

Woolley, Sam & Douglas Guilbeault. 2018. [United States: Manufacturing Consensus Online](#). In S. Woolley & P. Howard (Eds.), *Computational Propaganda: Political Parties, Politicians, and Political Manipulation on Social Media*. Oxford University Press. Pg. 185-212.

### **Policy Reports**

Guilbeault, Douglas. 2019. A Review of Disinformation Campaigns Against Climate Science and Collective Intelligence Interventions. [Digital Intelligence Lab](#).

Guilbeault, Douglas & Robert Gorwa. 2018. Current Challenges for Bot Policy and Foreign Interference. [Campaign Legal Center](#).

### **Awards**

Stanford's "Art of Science" Competition (Winner). "[Changing Views in Data Science over Fifty Years](#)."

Facebook Content Moderation Policy Research Award. 2019. [Networked Crowdsourcing: An Online Experiment in Content Moderation](#). w. Damon Centola. (\$100,000)

Computational Modeling Prize in Applied Cognition. 2019. The Social Network Dynamics of Category Formation. *The 41<sup>st</sup> Annual Meeting of the Cognitive Science Society*. w. Andrea Baronchelli and Damon Centola. (\$1000)

Best paper award. 2018. Bipartisan Social Networks Reduce Political Bias in the Interpretation of Climate Trends. *The International Conference on Computational Social Science*. Kellogg, Northwestern, July. w. Joshua Becker and Damon Centola. (\$1,000)

Dissertation award. 2018. The Network Dynamics of Interdisciplinary Research. *The Institute for Research on Innovation and Science*, The University of Michigan. (\$15,000)

Top student paper award. 2018. What should we do about Political Automation? Challenges for Policy and Research. Communication & Technology Division, *The International Communication Association*, Prague, March. w. Robert Gorwa.

The Philosophy Award for Distinguished Achievement, University of Waterloo, 2014.

The Albert Shaw Poetry Prize, University of Waterloo, 2012.

### **Scholarships & Fellowships**

Research Fellowship at the Institute for the Future (2018). (\$10,000)

Joseph-Armand Bombardier Canadian Graduate Scholarship from the Social Science and Humanities Research Council of Canada (SSHRC) – 2016-2020. (\$80,000)

The Tina and Morris Wagner Foundation Fellowship, UBC, 2014. (\$12,500)

The Langridge Graduate Scholarship in Humanities, UBC, 2014. (\$3,500)

Joseph-Armand Bombardier Canadian Master's Scholarship from the Social Science and Humanities Research Council of Canada (SSHRC) – 2013-2014. (\$20,000)

Ron Bates Bursary for Academic Achievement, 2014. (\$500)

Faculty of Arts Graduate Award, UBC, 2013. (\$13,000)

University of Waterloo Merit Scholarship, 2009. (\$1000)

## **Research Grants**

- Guilbeault, Douglas** and Joshua Becker. 2018. *The Collective Intelligence Dynamics of Fake News*. The Gates Foundation and the Institute for the Future. (\$20,000)
- Guilbeault, Douglas, Jahani E. , Gallagher N., Cavelli N., Leng Y., and C. Bail** (\*equal authorship). 2018. *The Outsider Effect on Polarization Dynamics in Social Networks*. Russell Sage Foundation, in association with the Summer Institute for Computational Social Science, Duke University, 2018. (\$10,000).
- Centola, Damon, **Guilbeault D.**, Ayasola J., Audrain J., and J. Becker. 2017. *Using Social Networks to Improve Scientific Communication about Tobacco Use*. NIH grant. (\$50,000)

## **Travel Grants**

- Student Travel Award**. 2019. Funding to present "The Social Network Dynamics of Category Formation" at the *41<sup>st</sup> Annual Meeting of the Cognitive Science Society, Montreal, Canada*. (\$500)
- The Culture Scholars Grant**. Annenberg School for Communication. Funding to present "Defending Against Bots and Computational Propaganda" at *Rightscon, Brussels, UK*. March 31<sup>st</sup>, 2017. (\$1,000)

## **Conference Papers (2018-2021)**

- "Promoting Shared Understanding across Cultures: Comparing U.S. and Chinese Populations in an Online Language Game." Culture Conference at the Haas School of Business, University of California, Berkeley. January 2021.
- "Topological Measures for Maximizing the Spread of Complex Contagions." *The American Sociology Association – Mathematical Sociology Division*, August 2020. w. Damon Centola.
- "The Color of Gender Disparity across Disciplines." *The American Sociology Association – Media Sociology*, August 2020. w. Ethan Nadler, Mark Chu, Ruggiero Lo Sardo, Aabir Abubaker, and Bhargav Desikan.
- "On Scale-Induced Category Convergence." *The International Conference on Computational Social Science*, August 2020. w. Andrea Baronchelli and Damon Centola.
- "Exposure to Common Enemies can Increase Political Polarization: Evidence from a Cooperation Experiment with Automated Partisans." *The International Conference on Computational Social Science*, August 2020. w. Eaman Jahani, Natalie Gallagher, Friedolin Merhout, Nicolo Cavalli, Yan Leng, and Christopher Bail.
- "Probabilistic Social Learning Improves the Public's Assessment of News Veracity." *The International Conference on Computational Social Science*, August 2020. w. Joshua Becker and Samuel Woolley.
- "Micro Categories, Macro Ambiguities." *The Nagymaros Conference* at the Stanford Graduate School of Business, June 2020.
- "Networked Crowdsourcing: An Online Experiment in Content Moderation." *Workshop on Empirical Approaches in Platform Governance Research*. Alexander von Humboldt Institute for Internet and Society, Berlin, Germany, June 2020.
- "Optimal Seeding Strategies for Social Contagions." *American Sociological Association* (Section on Mathematical Sociology), June 2020 (San Francisco), w. Damon Centola.
- "How Organizations Grow Categories." *Culture Conference* at the Berkeley Haas School of Business, January 2020.
- "The Network Dynamics of Category Formation." *The Nagymaros Conference* at the Stanford Graduate School of Business, August 2019. w. Andrea Baronchelli and Damon Centola.
- "The Dynamic Construction of Meaning in Social Networks." *The American Sociology Association*, August 2019. w. Andrea Baronchelli and Damon Centola.
- "Social Network Dynamics in the Construction of Meaning: An Experimental Study." *The 41<sup>st</sup> Annual Meeting of the Cognitive Science Society*, July 2019. w. Andrea Baronchelli and Damon Centola. (**\*Best paper award**).
- "The Social Network Dynamics of Category Formation." *The International Conference on Computational Social Science*, July 2019. w. Andrea Baronchelli and Damon Centola.
- "The Crowd Classification Problem." *The International Conference on Computational Social Science*, July 2019. w. Joshua Becker and Ned Smith.
- "Nuance matters: Collective Intelligence Dynamics in the Spread of Misinformation." *The 7<sup>th</sup> ACM Collective Intelligence Conference*, June 2019. w. Joshua Becker and Ned Smith.

- "How Meaning Emerges in Coordination Systems." *The International Meeting on Experimental and Behavioral Social Sciences*, May 2019. w. Andrea Baronchelli and Damon Centola.
- "How Network Modularity Mediates the Impact of Misinformation." *The International Communication Association*, May 2019. w. Eric Forbush, Jacob Gursky, and Damon Centola.
- "The Crowd Classification Problem." *The International Communication Association*, May 2019. w. Joshua Becker and Ned Smith.
- "Social categories and the network dynamics of political bias in an online social learning task." *The American Sociology Association*, Aug. 2018. w. Damon Centola and Joshua Becker.
- "Bipartisan Social Networks Reduce Political Bias in the Interpretation of Climate Trends." *The International Conference on Computational Social Science*, July 2018. w. Damon Centola and Joshua Becker (**\*Best paper award**).
- "Understanding Bots for Policy and Research: Challenges, Methods, and Solutions." *The International Communication Association*, March 2018. w. Rob Gorwa (**\*Best paper award**).
- "Using Collective Intelligence to Mitigate Motivated Reasoning in Climate Change Communications." *CompleNet*, May 2018.

### **Invited Lectures (2019-2021)**

- "Experiments on the Sociological Origins of Categories." Invited talk at *The Computational Social Science Forum (Berkeley)*, November 2020.
- "Promoting Shared Understanding across Cultures: Comparing U.S. and Chinese Populations in an Online Language Game." Invited talk at *The American Sociology Association Computational Sociology PreConference (Stanford)*, August 2020.
- "Experiments on the Sociological Origins of Categories." Invited colloquium in the Sociology Department @ UPenn. March 2020.
- "An Experimental Demonstration of Cross-cultural Convergence in Category Formation." Invited lecture for the *Common Ground Visiting Lecturer Series* in the Linguistics Department @ UPenn. September 2019.
- "Radical Emergence and the Network Dynamics of Category Creation." Invited lecture for *The Social and Behavioral Science Initiative* @ UPenn. March 2019.
- "Resolving the Paradox between Content Moderation and Freedom of Speech." Invited lecture for seminar on *Regulating and "Self-Regulating" Social Media* (COMM 817) taught by Monroe Price @ Annenberg, UPenn. Feb. 2019.
- "Harnessing Social Networks to Eliminate Motivated Reasoning ." Invited lecture for seminar on *Computational Social Science* (COMM 553) taught by Damon Centola @ Annenberg, UPenn. Feb. 2019.
- "Predicting Category Emergence." Invited lecture for the *Human Behavior and Origins Lab* led by Coren Apicella in the Psychology Department, UPenn. Feb. 2019.
- "The Network Dynamics of Belief Polarization." Invited lecture for class on *Internet & Democracy* (COMM 441) taught by Yph Lelkes @ Annenberg, UPenn.
- "Using Social Networks to Enhance Classification in Crowdsourcing Platforms." Invited talk at *Zooniverse*. January 9, 2019.

### **Teaching**

- EW MBA 257 (Haas; Spring 2020) – People Analytics.
- COMM 459 (Annenberg; Spring 2019) – Social Networks and the Spread of Behavior.
- COMM 448 (Annenberg; Fall 2018) – Practicum in Online Experiments.

### **Service**

**Reviewer** for *PNAS, Organization Science, Cognitive Science, EPJ Data Science, PloS One, Cognitive Science, I<sup>2</sup>S<sup>2</sup>, Social Media and Society, Culture Health & Sexuality, Language and Cognition, The Journal of Big Data, The Journal of Pragmatics.*

**Researcher** for the [Transatlantic Working Group](#) on Content Moderation Online and Freedom of Expression, organized by the Annenberg Public Policy Center and the Institute for Information Law at the University of Amsterdam. For coverage, see [here](#).

**Professional Experience**

**Consultant:** Annenberg Public Policy Center, The Institute for Information Law at the University of Amsterdam, Google, Facebook, Oxford Internet Institute, The Institute for the Future, The Campaign Legal Center.