

W. ABRAHAM GONG
CURRICULUM VITAE

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INTERESTS

I study social systems using a mix of computational and traditional methods. Substantively, my interests tend towards political communication, political participation, public opinion, media studies, and incentive-centered design. Methodologically, I use tools from survey research, content analysis, machine learning (especially natural language processing), network theory, decision and game theory, and econometrics.

EDUCATION

Ph.D., Public Policy and Political Science, University of Michigan, est. 2012
M.A., Public Policy, University of Michigan, 2008
B.A., Communications, Brigham Young University, 2006,
with honors and minors in business, Japanese, and mathematics.

DISSERTATION

Title: What theories of political activism can teach us about the blogosphere, and vice versa
Co-chairs: Nancy Burns - Political Science
Elisabeth Gerber - Public Policy
Committee: Scott Page - Complex Systems, Political Science, and Economics
Walter Mebane - Political Science and Statistics
Nicholas Valentino - Political Science and Communications Studies
Exam Fields: American Politics, Public Policy, Methodology

Abstract:

This project taps one of the richest sources of political data in all history—the political blogosphere—in order to better understand political communication. Unlike most forms of communication, blogging leaves a permanent data trail. Archives of thousands of political blogs exist online, complete with text, dates, links, and comments. My dissertation taps this wealth of social data using a combination of techniques from social and computer science: survey research, content analysis, web crawling, and automated text classification. Together, these tools enable me to better explain the blogosphere, and political participation. I find that classic theories of political participation predict bloggers' behavior remarkably well—political blogging is a form of activism. Conversely, I am able to break new theoretical ground by studying tone of discourse, topics, and timing of participation in the political blogosphere. Difficult to observe in other contexts, these aspects of blogging shed light on timeless elements of political interaction: attention, opinion, disagreement, persuasion, and participation.

ACADEMIC AWARDS AND FELLOWSHIPS

Doctoral

2012 - 2013 Yahoo Key Scientific Challenges Fellowship (*\$5,000 research grant and collaboration program*)
2011 - 2013 Amazon Web Services in Education Research Grant (*\$7,500 in-kind grant for cloud computing, storage, and file transfer through AWS*)
2011 - 2012 NSF Doctoral Dissertation Research Improvement Grant: Political Science (*\$10,520 for blogger surveys, content analysis, and computational expenses*)
2011 - 2012 Institute for Social Research Fellowship for Innovation in Social Research (*One-year fellowship covering tuition, health care, and stipend. Sole recipient*)
2010 - 2012 Ford Fellowship Research Award (*Two \$5,000 department grants to support data collection, software development, and other dissertation-related expenses*)
Summer 2010 Summer Collaborative Research Grant (*\$2,000 grant for large-scale text analysis of Congressional hearings, in collaboration with Jowei Chen.*)
2009 - 2010 Thesis Grant, University of Michigan Department of Political Science (*\$750 grant for pilot research related to political blogging*)

- 2009 - 2012 Rackham Graduate Student Research Grant (*\$1,500 and \$3,000 grants supporting dissertation-related expenses*)
- 2008 - 2010 NSF IDEAS/IGERT Fellowship, University of Michigan Center for Complex Systems (*Two-year interdisciplinary fellowship supporting work related to complex systems*)

Masters

William E. Simon and Carol G. Fellowship

Undergraduate

Hopson Integrated Marketing Scholarship
BYU Office of Research and Creative Activities Mentoring Grant
Robert K. Thomas Honors Scholarship
National Merit Scholar

PUBLICATIONS

“An automated snowball census of the political web.” Under review.

“SnowCrawl: Software for directed webcrawling.” Under review.

WORKING PAPERS

“Predicting individual survey responses from blog content.” With Mike Bommarito.

“Measuring tone and civility: A discourse codebook for political text.”

“Targeting, not position-taking: A formal model of targeted communication in electoral campaigns.”

“Computational political science.” Review article.

CONFERENCE PAPERS

“Why blog about politics? Results from a representative case-control survey” APSA 2011.

“Networks and Language in the 2010 Election.” With Avishay Livne, Matthew Simmons, Eytan Adar, and Lada Adamic. 2011 Political Networks Conference.

“An automated snowball census of the political web.” **Voted best paper at JITP 2011.**

“To what degree does the political blogosphere represent—or distort—the voice of the electorate?” MPSA 2011.

“Known certainty, measurement error, and the validity of automated text classification in regression analysis.” APSA 2010.

“Targeting, not position-taking: A formal model of targeted communication in American elections.” Poster presented at MPSA 2010

“Trickles or bursts? New methods for analyzing the dynamics of aggregate opinion during presidential campaigns.” MPSA 2009.

“A model of In-group Pressure and Inter-group Conflict.” With Joshua Gubler. MPSA 2009.

“Applying voice recognition to vox populi: State transition models in the study of public opinion and political communication.” APSA 2009

“Popping the undergraduate news bubble: Factors influencing current events knowledge among college students.” Proceedings of the Central States Communication Association 2007 meeting in Minneapolis, Minnesota.

“Network analysis of toxic chemicals and symptoms: Implications for designing first-responder systems.” With Suresh Bhanvani and others. Proceedings of the American Medical Informatics Association 2007 meeting in Chicago, Illinois. **Recipient of AMIA distinguished paper award.**

SOFTWARE

SnowCrawl: An open source python library for directed webcrawls

TextBadger: A web-based content coding platform with native support for automated content analysis.

RESEARCH REPORTS

“Michigan Teacher Quality and Retention.” Report to the Michigan State Superintendent and Teacher Preparation Policy Study Group, 2007.

“Supporting Military Families of Utah through Counseling, Outreach, and Support.” Report to steering committee for fund expenditure of Utah HB407, 2006.

“Factors Influencing Retention in the 96th Regional Readiness Command.” Report to the commanding general and staff of the 96th Regional Readiness Command, 2006.

EXPERIENCE

Teaching

2010 - Present Graduate Student Instructor, Directed Readings on Online Political Speech (PolSci392)
2007 Graduate Student Instructor, Program Evaluation (PP636), University of Michigan
2004 - 2006 Teaching and Research Assistant; Research in Communication (Comm319), Strategic Public Relations Campaigns (Comm485), Strategic Advertising Campaigns (Comm489); BYU Communications Research Center

Workshops

Summer 2011 Netroots Nation progressive political bloggers conference
Summer 2009 Empirical implications of theoretical models (EITM) Summer Institute

Industry and Policy

Summer 2011 Research Program Analyst, DARPA XC2V crowdsourced vehicle design project
Summer 2008 Research Intern, Michigan Department of Education, Office of Educational Technology
Summer 2007 Research Intern, Michigan Department of Education, Office of Educational Technology
Summer 2006 Research Contractor, Utah State Veterans Affairs Office
Summer 2005 Opinion Research Intern, APCO Insight
2003 - 2004 Multimedia Programmer and Project Lead, BYU Center for Instructional Design
Summer 2000 Intern, Office of Congressman Tom Lantos, U.S. House of Representatives

Community and Extracurricular

2010 - 2012 Graduate Student Coordinator, Complex Systems Advanced Academic Workshop
2007 - 2008 Co-chair, Ford School Spring Charity Auction
2006 - 2008 Member, Association for Public Policy about Learning and Education
2003 - 2006 Founder and President, Current Events Student Association

SKILLS

python, R, jquery, linux command line, javascript, django, stata, SPSS, Java, C++