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## Education

**Stanford University** Stanford, CA  
*Ph.D. Communication, M.S. Statistics* 2008 - 2013

- Research interests: political communication, race, analysis of images & computer vision, automated text analysis, machine/statistical learning, networks, visualization

**University of California, San Diego** La Jolla, CA  
*Masters, School of International Relations/Pacific Studies (Int'l MBA-curriculum)* 2003 - 2005

**University of California, Santa Barbara** Santa Barbara, CA  
*Bachelor of Arts with Honors in Political Science and Global Studies, Japanese minor* 1998 - 2002

## Selected Papers & Projects

**“Online media effects: Social, not political, reinforcement”** with Sean Westwood & Yphtach Lelkes.  
Three experiments suggest exposure to online news is likely to depend less on one’s favored news source and more on the much wider array social connections and affiliations with which an individual maintains online ties. Paper presented at the *Midwest Political Science Association* annual conference in Chicago, IL, 2011.

**“Opinion change in deliberation: The role of peer influence and persuasion”** with Sean Westwood.  
Using network data, shows that directed interaction of high discourse quality between participants is more predictive of final attitudes than previously understood phenomena including individual-level knowledge gain or group-level polarization. Paper presented at the *Midwest Political Science Association* annual conference in Chicago, IL, 2011.

**“Does skin complexion influence candidate preference? The case of the 2008 campaign”** with Shanto Iyengar, Kyu Hahn, & Jeremy Bailenson. Examines effect of candidate skin complexion on vote intent in 2 experiments (national sample) in the 2008 primary and general elections. Paper presented at the *American Political Science Association* annual conference in Washington, DC, 2010.

**“Social network analysis labs in R”** with Sean Westwood, Mike Nowak & Dan McFarland. Provides a complete introduction to social network analysis using the R statistical programming language, along with demonstration data. Labs available at <http://sna.stanford.edu/rlabs.php>.

**“Bias in the flesh: Attack ads and the effects of visual cues in the 2008 presidential campaign”** with Ethan Plaut & Maria Jabon. Documents correlations between negative advertisements and irregular skin complexion in presidential campaign advertisements; examines affective responses to such photographic alterations in a national sample of U.S. citizens. Paper presented at the *International Communication Association* annual conference in Singapore, 2010.

**“Flesh-tone pixel comparison: A method to test for bias in images of political candidates”**  
Presents a method to analyze skin complexion in political advertisements by utilizing hue, saturation, and value (HSV) data encoded in digital images. Paper presented at the *International Association of Media and Communication Research* annual conference in Mexico City, 2009.

## Software Packages

**ImageMetrics** R package to facilitate the analysis of image data, designed to facilitate analysis described in “Bias in the flesh” (see above).

**wvioplot** R package to produce density overlay plots and violin plots with weighted data, which allows the visualization of the distribution of a quantitative variable along with its quartiles and a measure of central tendency. A violin plot is a combination box plot and kernel density plot.

**NetCluster** with Mike Nowak, Sean Westwood & Dan McFarland. R package to facilitate network clustering and evaluation of cluster configurations.

**triads** with Sean Westwood, Mike Nowak & Dan McFarland. R package to determine node-level triad type membership for the 16 types of triads that occur in a directed network. Based on SAS code developed by James Moody.

**NetData** Provides demo data for “Social network analysis labs in R.”

**EasyAPI** R package (forthcoming) designed to make it easy for researchers to get data from the New York Times, Yahoo/Yahoo Finance, and Google by using `RCurl` and `rjson` to connect to each website’s application programming interfaces (APIs).

**Open IAT/bIAT** with Sean Westwood. Web application that implements the Implicit Associations Test and brief Implicit Associations Test, based on JavaScript, PHP, and MySQL. Builds on the “Open and Online IAT.” Available here: <http://pclresearch.stanford.edu/iat/>

## Honors and Awards

**2010** \$60,000 Google Research Award (with Sean Westwood, supervised by Dan McFarland & Jeremy Bailenson) “Harnessing the social graph: Social cues and reliability in content selection and evaluation”

**2010** \$1,000 A-REP Research Grant (with Sean Westwood), “The impact of social news ratings on media consumption heuristics and agenda setting”

**2008** Department of Communication Fellowship

**2007** Annual Achievement Award for Excellence in Science and Technology - Technical Collaboration, Science Applications International

**2007** Selected for Future Leaders program, Science Applications International

**2004–2005** Dean’s Fellow, University of California, San Diego IR/PS

**2001** Phi Beta Kappa, University of California, Santa Barbara

**2000** Golden Key, University of California, Santa Barbara

## Computing and Methods

**R Statistical Programming Language (S/S-PLUS)** 5 years experience using R for visualization, network analysis, statistical analysis, and data transformation; experience working with large data sets.

**SQL** 2 years experience including database design with MySQL, some experience with MS-SQL and SQLite.

**Java** Undergraduate & natural language processing courses taken; some professional coding experience.

**Python** Experience parsing data from the web, data management.

**Web Dev** Working knowledge of JavaScript, PHP, JSON, RegEx, HTTP, Linux shell scripts, C-sharp/.NET.

**Misc**  $\LaTeX$ , BibTeX, Sweave/SweavePgf; basic SPSS and STATA; Open-Office, MS-Office (over 5 years experience using Access & Excel); Linux, Mac OS, Windows.

## Professional Experience

### Science Applications International

Washington, DC

*Strategic Communication Analyst*

Oct. 2007 - Aug. 2008

- Developed foreign media content analysis system analyzing sentiment, attribution of responsibility, economic framing; visualization and reporting thereof.
- Developed network visualizations to show spread of distinct themes across media sources, and highlight key originators and distributors of content on the web using R. Automated and helped integrate visualizations into web-based analytic system.
- Helped calibrate portion of automated content analysis system based on Latent Semantic Analysis (LSA).

*Media Analytics Developer - Team Leader*

May 2007 - Oct. 2007

- Developed human-coder content analysis data set measuring position toward key U.S. policies in Arabic press editorials; built database, GUI; reported key findings to officials.
- Oversaw human-coder content analysis research for monthly report on expressed political attitudes and sentiment in Iraq, Iran, Pakistan, Indonesia, Nigeria, Thailand, the North Caucasus, Argentina, and China. Presented technical aspects of the project's key findings to the Strategic Communication Integration Group (SCIG) at the Pentagon.
- Conducted investigatory research on applying Latent Semantic Analysis to Internet media to produce automated content analysis data.

*Policy Analyst-Linguist - Team Leader*

Oct. 2005 - May 2007

- Reported on issues related to public diplomacy and security using Indonesian-language sources on the Internet. Collaborated with Arabic, Dhari, and Pashto analysts to produce similar work. Published more than 50 reports with readership across the U.S. Public Diplomacy community. Citations and follow-up research requests from government officials including Under Secretary Hughes, Congressman Markey, and then-Senator Clinton.
- Conducted human-coder content analysis on Indonesian sources for monthly report designed to indicate trends in political activity on the Internet and sentiment toward U.S.; collaborated on study of said data.
- Delivered a variety of training briefs and presentations on media research methods, website diagnostics, and online document archiving.

### U.S. Embassy Jakarta

Jakarta, Indonesia

*Human Rights Desk Intern, Political Section*

Jun. - Aug. 2004

- Wrote cables on human rights accountability in Indonesia: East Timor and Tanjung Priok trials.
- Gathered data for 2004 Indonesia Human Rights Report to U.S. Congress, interviewing local Human Rights NGO leaders.

### U.S. Consul General Johannesburg

Johannesburg, South Africa

*Labor Attaché Intern*

Jun. - Sep. 2003

- Gathered relevant data and drafted the 2002 Foreign Labor Trends report, data source for U.S. officials and companies.
- Conducted project investigating migration of skilled South Africans out of the country.
- Reported on labor issues in the South African mining industry in numerous cables.

## Languages

**Indonesian and Malay (Bahasa)** 2 years professional experience as Indonesian analyst/linguist; 2 years intensive Indonesian graduate study; Certified 3/2 Written/Spoken on the Interagency Language Roundtable (ILR) scale used by the U.S. Foreign Service.

**Japanese** 1 year study abroad in Tokyo, Japan; 2 years undergraduate language study (stateside).

**Arabic** Digital courses taken; introductory-level translation experience.

## Editorial Board Positions

**2008-2011** Assistant Editor, Reviewer, *Political Communication*

**2003-2005** Founding Editor, Reviewer, *Journal of International Policy Solutions*

**2004-2005** Guest Editor, Reviewer, *Journal of Public and International Affairs*

## Professional Societies

**American Political Science Association (APSA)**, member

**Midwest Political Science Association (MPSA)**, member

**International Communication Association (ICA)**, member

**United States-Indonesia Society (USINDO)**, member