

Taylor B Arnold  
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Department of Mathematics and Computer Science  
University of Richmond  
Richmond, VA, USA

Email: [tarnold2@richmond.edu](mailto:tarnold2@richmond.edu)  
Web: [statsmaths.github.io](https://statsmaths.github.io)

## EDUCATION

Ph.D., Statistics, Yale University, May 2013  
M.A., Statistics, Yale University, December 2009  
B.A., Mathematics, Bowdoin College, May 2007

## PROFESSIONAL APPOINTMENTS

University of Richmond, Assistant Professor of Statistics (Tenure Track), 2016 – Present  
Yale University, Department of Statistics, Lecturer, 2015 – 2016  
AT&T Labs Research, Statistics Department, Senior Scientist, 2014 – 2016

## PUBLICATIONS

### Books

*Humanities Data in R: Exploring Networks, Geospatial Data, Images, and Text..*  
Taylor Arnold and Lauren Tilton. New York: Springer International Publishing, 2015.

### Refereed Research Manuscripts

“Tidy data model for natural language processing using cleanNLP.”  
Taylor Arnold. *The R Journal*, 9.2, (2017): 248-267.

“Uncovering latent metadata in the FSA-OWI photographic archive.”  
Taylor Arnold, Stacey Maples, Lauren Tilton, and Laura Wexler. *Digital Humanities Quarterly*, 11.2 (2017).

“iotools: High-performance tools for R.”  
Taylor Arnold, Michael Kane, and Simon Urbanek. *The R Journal*, 9.1, (2017): 6-13.

“Knowledge creation through recommender systems.”  
Taylor Arnold, Peter Leonard, and Lauren Tilton. *Digital Scholarship in the Humanities*, 32.3 (2017).

“Efficient implementations of the generalized lasso dual path algorithm.”  
Taylor Arnold and Ryan Tibshirani. *Journal of Computational and Graphical Statistics*. 25.1, (2016).

“Nonparametric goodness-of-fit tests for discrete null distributions.”  
Taylor Arnold and John Emerson. *The R Journal*, 3.2 (2011): 34-39.

“Statistical sleuthing by leveraging human nature: A study of Olympic figure skating.”  
John Emerson and Taylor Arnold. *The American Statistician*, 65.3 (2011). 143-148.

### **Refereed Short Articles and Proceedings**

“New data, new histories: The role of statistics in DH.”  
Taylor Arnold and Lauren Tilton. *Debates in the Digital Humanities 2018*. University of Minnesota Press. In Print.

“Predicting CEFRL levels in learner English on the basis of metrics and full texts”  
Taylor Arnold, Nicolas Ballier, Thomas Gaillat, and Paula Lissón. In: *Proceedings of the 20th Conférence sur L’Apprentissage Automatique*, (2018).

“kerasR: Interface to the Keras deep learning library.”  
Taylor Arnold. *Journal of Open Source Software*, 2(14), 296, (2017).

“Basic text processing in R.”  
Taylor Arnold and Lauren Tilton. *The Programming Historian*, 6 (2017).

“Twenty-four-hour pattern of intraocular pressure in patients with ocular hypertension.”  
Grippio, Tomas, John Liu, Nazlee Zebardast, Taylor Arnold, Grant Moore, and Robert Weinreb. *Investigative Ophthalmology & Visual Science*, 54.1 (2013). 512-517

“Who talks, and who’s listening? Networks of international security studies.”  
Russett, Bruce, and Taylor Arnold. *Security Dialogue*, 41.6 (2010): 589-598.

### **Manuscripts in Submission**

“Cross-Discourse and Multilingual Exploration of Text with the DualNeighbors Algorithm”  
Taylor Arnold and Lauren Tilton. 2nd Joint SIGHUM Workshop on Computational Linguistics for Cultural Heritage, Social Sciences, Humanities and Literature (LaTeCH-CLfL 2018).

“Distant Viewing: Analyzing Large Visual Corpora”  
Taylor Arnold and Lauren Tilton. *Digital Scholarship in the Humanities*.

“Beyond Lexical Frequencies: Using R for Text Analysis in the Digital Humanities”  
Taylor Arnold, Nicolas Ballier, Paula Lissón, and Lauren Tilton. *Language Resources and Evaluation*.

“What’s in a Name?”  
Taylor Arnold and Lauren Tilton. *Debates in DH 2019: Institutions, Infrastructures at the Interstices*.

“Collaboration, Teaching, and Interpretation: Making Data Construction Visible”  
Taylor Arnold, Courtney Rivard, and Lauren Tilton. *Digital Humanities Quarterly*.

### **Manuscripts in Preparation**

*A Computational Approach to Statistical Learning*.

Taylor Arnold, Michael Kane, and Bryan Lewis. CRC Press, Texts in Statistical Science. (Under Advanced Contract)

“Depth in Deep Learning: Layered, Knowledgeable, and Impenetrable”

Taylor Arnold and Lauren Tilton. Edited Volume. *Deep Mediations*. (Proposal accepted)

*Voice of a Nation*

Taylor Arnold, Courtney Rivard, and Lauren Tilton. Digital Manuscript. *Stanford University Press: Digital Projects*. (Proposal accepted)

### **EXTERNAL GRANTS AND AWARDS**

Mellon Foundation Planning Grant, Office of Scholarly Communication. Advisory Board Member. “Planning for: New Deal Then and Now Crowdsourcing.” #21700106. \$46,500. (2017)

Université Paris Diderot. Visiting Faculty Bursary. €9,500. (2017).

American Council of Learned Societies (ACLS) Digital Extension Grant. Co-Director. “Photogrammar: Seeing and Hearing America’s Documentary Record.” \$150,000. (2016-2018).

NEH Digital Projects for the Public: Discovery Grants. Digital Lead. “Participatory Media.” MD-234145-16. \$30,000. (2015-2018).

NEH Digital Start-Up. Co-Director. “Photogrammar.” HD-51421-11. \$50,000. (2011-2015).

### **INVITED TALKS AND WORKSHOPS**

#### **2017-2018**

- Invited Workshop Presenter, “Distant Viewing with Deep Learning”, Carnegie Mellon University, 2018-06-30 to 2018-07-01
- Invited Workshop Participant, “Natural Language Processing in R”, NYU, 2018-04-20 to 2017-04-21
- Invited Chair, Doing Digital History, CHNM, George Mason University, 2018-03-17
- Invited Presentation, Regional DH Symposium, University of Virginia, 2018-03-10
- Poster, JSM 2017, “Computer Vision Meets Television”, 2017-07-29 to 2017-08-03
- Tutorial Presenter, useR 2017, 2017-07-04

#### **2016-2017**

- Invited Workshop Participant, “Natural Language Processing in R”, London School of Economics, 2018-04-21 to 2018-04-22
- Invited talk: Washington and Lee University, “Digital Humanities, Data Analysis and Its Possibilities”, 2017-02-02
- Workshop, UVa, “Participatory Media”, 2017-02-23 to 2017-02-24

## **2015-2016**

- Culture Analytics and User Experience Design, Institute for Pure and Applied Mathematics, UCLA, April 2016.
- Image Processing and Reunification Workshop, University of Maryland 2016-09-16 to 2016-09-17.
- Hollins University, “Participatory Media”, 2016-10-16

## **pre-2016**

- “High Performance Data I/O”, New England Statistics Symposium, University of Connecticut, April 2015.
- “Oh the Places We’ll Go”, Department Seminar, Amherst College, February 2015.
- “The Genlasso Package”, Connecticut R Users Group, New Haven, CT, February 2013.
- “Historical Data with Photogrammar”, University Library Colloquium, Columbia University, March 2012.
- “The Best Guess: Comparing Bernoulli Estimators”, Department Seminar, Bowdoin College, November 2011.

## **CONFERENCE ACTIVITY**

### **2017-2018**

- Contributed Paper, JSM 2017, “Grapheme, Phoneme, Morpheme: Features for Text Classification”, 2017-07-29 to 2017-08-03
- Paper, DH 2017, “Mapping 20th Century America”, 2017-08-08 to 2017-08-11
- Poster, DH 2017, “Distant Seeing TV”, 2017-08-08 to 2017-08-11

### **2016-2017**

- Joint Statistical Meetings, “What to do with messy data? Four case studies.” Chair and Organizer. 2016-07-30 to 2016-08-04.
- Digital Humanities, “Photogrammar: Organizing Visual Culture through Geography, Text Mining, and Statistical Analysis.” 2016-07-07 to 2016-07-12.

## **pre-2016**

- “Using R in Humanities Research”, Institute for Liberal Arts Digital Scholarship (ILiADS), Hamilton College, July 2015.

- American Studies Association Annual Meeting, “Photogrammar in Puerto Rico: Reading the FSA’s 1930s Visual Archive with Twenty-first-Century Visualization Tools.” 15-18 November, 2012.
- Joint Statistical Meetings, “User Oriented High Dimensional Linear Model Estimation.” Contributed Talk, 28 July - 2 August, 2012.
- Joint Statistical Meetings, “Statistical Sleuthing by Leveraging Human Nature.” Invited Poster, 28 July - 2 August, 2012.
- useR! Meeting, “Package hdlm: Fitting High Dimensional Linear Models.” Contributed Talk, 12-15 June, 2012.
- American Historical Association Annual Meeting, “From Archive to Interdisciplinary Tool: Transforming Our Image of the FSA-OWI Photograph Collection.” Contributed Talk, January 5-8, 2012.
- American Studies Association Annual Meeting, “Digital Humanities Lightning Shorts.” Contributed Talk, 20-23 October 2011.
- useR! Meeting, “Nonparametric Goodness-of-Fit Tests for Discrete Null Distributions.” Contributed Talk, 16-18 August 2011.

## **TEACHING**

### **University of Richmond**

- Intro. to Statistical Modeling (MATH 209a; MATH 209b; MATH 209c): Spring 2018
- Regression Models (MATH 289): Fall 2017
- Statistical Learning (MATH 395a / CS 329b): Fall 2017
- Probability (MATH 329): Spring 2017
- Intro. to Statistical Modeling (MATH 209a; MATH 209b): Spring 2017
- Intro. to Statistical Modeling (MATH 209b; MATH 209c): Fall 2016

### **Yale University**

- Data Mining and Machine Learning (STAT 365/665): Spring 2016
- Linear Models (STAT 312/612): Spring 2016
- Introduction to Statistics (STAT 107): Summer 2010

### **Connecticut College**

- Introduction to Statistics (MAT 107a; 107b): Spring 2011

## **PROFESSIONAL SERVICE**

- Associate Editor of Statistics: Pediatric Neurology (2017-Present)
- Proceedings of the National Academy of Sciences, Referee (2018)
- International Journal of Forecasting, Referee (2018)
- Distributed Computing Working Group, Member (2016-2017)
- American Statistical Association, Section Program Chair (2015-2016)
- Digital Humanities Quarterly, Referee (2014-2017)

- Digital Art History, Referee (2015-2016)
- Biometrika, Referee (2015)
- Journal of Statistical Software, Referee (2015-2018)
- Neurology, Referee (2013-2016)
- The R-Journal, Referee (2012-2017)

#### **UNIVERSITY SERVICE**

- BML / THC Envisioning Steering Committee (2017-Present)
- Jackson Award for Excellence in Library Research in the Social Sciences (2017)
- University Library Committee (2017-Present)
- Math and Computer Science Department Colloquium Chair (2016-Present)

#### **PROFESSIONAL MEMBERSHIP**

- American Statistical Association (ASA)
- Association for Computers and the Humanities (ACH)
- European Association for Digital Humanities (EADH)
- Association for Computational Linguistics (ACL)
- Association for Computing Machinery (ACM)