



Small Grant Application

Visit <http://www.apaonline.org/?grantfund> to submit.

Contact Information

Contact Name: Colin Allen

Email Address: colallen@indiana.edu

APA Member? Yes No *Only APA members may submit grant applications. Membership will be verified.*

Funding Information

Fiscal Agent: Jim Becker

Fiscal Agent Contact Name: Executive Director, Grant Administration

Mailing Address: Office of Research Administration

509 E. Third Street, Bloomington, IN 47401-3654

Email Address: rugs@indiana.edu Phone Number: 812-855-0516

Total Funding Amount Requested: \$3,000 *Proposals over \$5,000 normally are not funded.*

Project Information

Project Title: Gender in the Stanford Encyclopedia of Philosophy

Abstract: *Maximum 150 words.*

This project seeks to examine the gender distribution in one of the most influential online resources of philosophy, the Stanford Encyclopedia of Philosophy, by providing statistical measures of female representation in authorship and rates of citation, investigating patterns of citation for potential biases, comparing the SEP gender distribution to the more general demographics of the field, and exploring whether the content of SEP articles written by women is different than articles written solely by men, or mixed gender authorship. The information found through this project will assist SEP authors and editors to identify specific areas in which they can work to ensure equitable representation in the SEP.

Steering Committee

| Name | Institutional Affiliation | APA Member? |
|--------------|---------------------------|---|
| Uri Nodelman | Stanford University / SEP | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| | | <input type="radio"/> Yes <input type="radio"/> No |
| | | <input type="radio"/> Yes <input type="radio"/> No |
| | | <input type="radio"/> Yes <input type="radio"/> No |
| | | <input type="radio"/> Yes <input type="radio"/> No |
| | | <input type="radio"/> Yes <input type="radio"/> No |

Attach a brief resume for each member of the steering committee (maximum two pages per person) highlighting that member's activities and achievements relevant to the project.

Project Purpose

Provide a brief account of the project's purpose, explaining its benefits for the profession and/or how it involves community outreach. Attach additional pages as necessary.

The primary purpose of this project is to both quantitatively and qualitatively analyze the gender distribution in the Stanford Encyclopedia of Philosophy. To do so, we will carry out the following tasks:

1. Generate statistical information quantifying the gender distribution in the SEP. Such statistics would include female authorship rates within subfields of philosophy and rate of women cited within subfields.
 2. Identify specific ways in which a gender gap might be perpetuated by philosophers' citation patterns. For example, this project will seek to find whether men are less likely to cite women than women are.
 3. Compare the gender distribution of SEP authorship and citations with the gender distribution of academic positions in philosophy.
 4. Explore whether differences between the writing of women and men are detectable for a given subfield of philosophy. This will be tested by running articles from each subfield corresponding SEP subject areas through a topic modeler and correlating with gender.
- The information found through the first three tasks of this project will help the authors and editors of the SEP identify specific areas in which they can target to ensure appropriate gender representation. If results from the fourth task show that women and men do contribute different writing, a new aspect of the profession-wide conversation concerning the importance of representation may be opened.

Project Status

Describe the groundwork already laid for the project or, in the case of projects involving community outreach, the relationships already developed in the community. Attach additional pages as necessary.

Thus far, we have compiled statistics of the distribution of male vs. female vs. mixed authors in about half of the SEP, broken down by subfield. We also have written a program that uses IU Pubs, a database of bibliography citations created by Indiana University's Cognitive Science Program, to determine the rates of citation of female authors in different subfields. Catherine Xu, an undergraduate student in Cognitive Science, has performed a preliminary analysis of this partial dataset. The analysis suggests that within the same subfield men cite women at a significantly lower rate than women cite women. This finding is limited insofar as data we have covers only about half of the bibliographies in the SEP. The Cognitive Science and the P.I. Colin Allen have devoted some resources to filling in the missing data, but we see the need to accelerate this process through the employment of hourly-rate students to do data entry.

To test whether the content of female authors' writing is different than that of male authors, we ran a small sample of SEP articles through a topic modeler, which uses a bottom-up approach to infer thematic similarities from word distributions in text corpus. Results showed that topic distributions were correlated with author gender, however a full experiment needs to be run with appropriate controls for other contributing variables. We plan to extend this preliminary analysis to see if the difference is robust in all subject areas. This part of the project builds upon the existing topic models of the SEP already available at <http://inphodata.cogs.indiana.edu/>

Project Plan and Timeline

Attach additional pages as necessary.

The biggest bottleneck for this project is to build out the full dataset of SEP citation data in the IU Pubs database. Hence we are requesting funds to hire two undergraduate student hourly workers during the late fall and the spring semester to work 8-10 hours each per week at \$10/hr. Analysis will be conducted by these students under the supervision of the P.I. and with assistance from Catherine Xu.

By March 1, 2017: Finish entering all the bibliographic information from the SEP.

By April 15, 2017: Finish gathering all data regarding male vs. female vs. mixed authorship and citation distribution in the SEP for each subfield. Visualize all data with graphs and post to website. With this new data, re-analyze whether men cite women at a lower rate. Post results to website.

By May 31, 2017: Using Julie Van Camp's 2015 data on women in philosophy faculty positions, and any available updates, compare the SEP authorship and citation gender distribution with the more general distribution of the field. Visualize this comparison and post to website. As a side benefit, the SEP bibliography in the IU Pubs database will be publicly available, in a more usable format than the html versions at the SEP itself, and the partial matching service provided by PhilPapers, e.g. <http://philpapers.org/sep/anna-julia-cooper/>

Outreach Plan

Describe how the project will be advertised to the larger philosophical and/or lay public. Attach additional pages as necessary.

The results of this project will be visualized on a website hosted at <http://inpho.cogs.indiana.edu> and the bibliography made available at pubs.cogs.indiana.edu

In addition, we hope to work with the APA to have the website linked at <http://www.apaonline.org/group/women> or <http://www.apaonlinecs.w.org>

Accessibility Plan

If the proposal involves public lectures, performances, presentations, or films, describe how the project will be accessible for disabled persons, including deaf/hard of hearing and blind/visually impaired individuals. Attach additional pages as necessary.

N/A

Evaluation Plan

Describe how the project will be assessed at its completion with an eye to what worked and what could be improved. Attach additional pages as necessary.

We have asked Prof. Carrie Figdor, University of Iowa, to serve as an external evaluator and advisor, and we will ask her to write a short report at the end of the project.

Colin Allen – Biographical Sketch

a. Professional Preparation

University of London, Philosophy, BA, 1982

University of California, Los Angeles, Philosophy, PhD, 1989

University of Colorado, Boulder, NSF Professional Development Fellowship, EPO Biology, 1994-1995

b. Appointments

Indiana University, College of Arts & Sciences

2004-present Full Professor, Dept. of History & Philosophy of Science & Medicine

2004-present Full Professor, Program in Cognitive Science

2004-present Faculty Member, Center for the Integrative Study of Animal Behavior

2005-present Adjunct Professor, Graduate Faculty, Department of Philosophy

2011-present Provost Professor

2011-2015 Director, Program in Cognitive Science

2014-present Faculty Member, Program in Neuroscience

2015-present Member, IU Network Institute

Xi'an Jiaotong University, China, School of Humanities & Social Sciences,

2015-2018 Chair Professor, Dept. of Philosophy

Texas A&M University, College of Liberal Arts

1989-1995 Assistant Professor, Dept. of Philosophy

1993-1994 Research Associate, Center for Biotechnology Policy & Ethics

1994-2000 Associate Professor, Dept. of Philosophy

1996-2000 Assistant Department Head

2000-2004 Full Professor, Dept. of Philosophy

c. Products

Most closely related

1. Allen, C. and the InPhO Group (2013) Cross-cutting classification schemes in the digital humanities. *Isis* 104: 573-583.
2. Landy, D., Allen, C., and Zednik, C. (2014) A perceptual account of symbolic reasoning. *Frontiers in Psychology*: 21 April 2014 doi: 10.3389/fpsyg.2014.00275
3. Allen, C. (2014) Umwelt or Umwelten? How should shared representation be understood given such diversity? *Semiotica* 198: 137-158; doi:10.1515/sem-2013-0105.
4. Theiner, G., Allen, C., Goldstone, R. (2010) Recognizing group cognition. *Journal of Mind and Behavior* doi:10.1016/j.cogsys.2010.07.002.
5. Wallach, W. and Allen, C. (2009) *Moral Machines: Teaching Robots Right from Wrong*. New York: Oxford University Press.

Other significant products

1. InPhO online production including interactive website and data API (inpho.cogs.indiana.edu), InPho, Topic Explorer (inphodata.cogs.indiana.edu) and open sources corpus modeling and visualization tools (github.com/inpho/topic-explorer).
2. Murdock, J., Buckner, C. and Allen, C. (2013) Evaluating Dynamic Ontologies. in Knowledge Discovery, Knowledge Engineering, and Knowledge Management: Second International Joint Conference, IC3K 2010, Valencia, Spain, October 25-28, 2010, Revised Selected Papers. (Communications in Computer and Information Science, Lecture Notes, vol. 272). Springer-Verlag. doi:10.1007/978-3-642-29764-9_18.
3. Buckner, C., Niepert, M., and Allen, C. (2010) From encyclopedia to ontology: toward dynamic representation of the discipline of philosophy. *Synthese* doi:10.1007/s11229-009-9659-9.
4. Eckart, K, Niepert, M., Niemann, C., Buckner, C., Allen, C., Stuckenschmidt, H. (2010) Crowdsourcing the Assembly of Concept Hierarchies. In *Proceedings of the 10th ACM/IEEE Joint Conference on Digital Libraries (JCDL)*, Brisbane, Australia, ACM Press.
5. Murdock, J., Allen, C., and DeDeo, S. (submitted) Exploration and Exploitation of Victorian Science in Darwin's Reading Notebooks. arxiv:1509.07175

d. Synergistic Activities

1. P.I. NEH-funded InPhO (Indiana Philosophy Ontology) projects: (<https://inpho.cogs.indiana.edu/>) and related InPhOdata and Topic Explorer project (<http://inphodata.cogs.indiana.edu>).
2. Associate Editor and Principal Programming Consultant, Stanford Encyclopedia of Philosophy (<http://plato.stanford.edu/>).
3. Advisory board member for IsisCB online History of Science current bibliography (<http://isiscb.org/>).
4. Advisory board member for Linked Modernisms project (<http://linkedmods.uvic.ca>).

URI NODELMAN

nodelman@stanford.edu ♦ (443) 921-6918

- EDUCATION**
- Stanford University** June 2007
PhD, Computer Science
- Stanford University** April 2002
MS, Computer Science
- University of Maryland, College Park** June 1995
BS, Mathematics *cum laude*
- WORK**
- Stanford University**, Senior Research Engineer 2015–present
Research, design, and implement systems to run and administer workflows, websites and codebases for the *Stanford Encyclopedia of Philosophy* (SEP) and the *Friends of the SEP Society* (FotSEPS). Working daily as Senior Editor of the SEP to: manage staff of Assistant Editors and Software Engineers, manage document formatting for the SEP and FotSEPS, collaborate on budgeting and planning, handle correspondence, resolve editorial issues, develop policies and procedures for SEP and FotSEPS.
- Stanford University**, Engineering Research Associate 2007–2015
- Stanford University**, Assistant Editor, SEP 1998–2007
- Stanford University**, Research Assistant 1999–2007
- University of Maryland, College Park**, Research Assistant 1996–1998
- SERVICE**
- Program Committee Member, *Uncertainty in Artificial Intelligence*, 2011
Member of the Digital Encyclopedia Committee of AASLH, 2009–present
- PERSONAL**
- US Citizen
Member of Phi Beta Kappa

PUBLICATIONS Refereed Journals

- [1] Uri Nodelman, Edward N. Zalta. “Foundations for Mathematical Structuralism”. *Mind*, 123/489 (2014): 39–78.
- [2] Colin Allen, Uri Nodelman, and Edward N. Zalta. “The Stanford Encyclopedia of Philosophy: A Developed Dynamic Reference Work”. *Metaphilosophy*, 33(1–2): 210–228.

Refereed Conferences

- [3] Suchi Saria, Uri Nodelman, and Daphne Koller. “Reasoning at the Right Time Granularity”. In *Proceedings of the Twenty-third International Conference on Uncertainty in Artificial Intelligence*, 2007. (Best Student Paper Award)
- [4] Uri Nodelman, Christian R. Shelton, and Daphne Koller. “Expectation Maximization and Complex Duration Distributions for Continuous Time Bayesian Networks”. In *Proceedings of the Twenty-first International Conference on Uncertainty in Artificial Intelligence*, pages 421–430, 2005.
- [5] Uri Nodelman, Daphne Koller, and Christian R. Shelton. “Expectation Propagation for Continuous Time Bayesian Networks”. In *Proceedings of the Twenty-first International Conference on Uncertainty in Artificial Intelligence*, pages 431–440, 2005.
- [6] Uri Nodelman, Christian R. Shelton, and Daphne Koller. “Learning Continuous time Bayesian networks”. In *Proceedings of the Nineteenth International Conference on Uncertainty in Artificial Intelligence*, pages 451–458, 2003. (Best Student Paper Award)
- [7] Uri Nodelman, Christian R. Shelton, and Daphne Koller. “Continuous time Bayesian networks”. In *Proceedings of the Eighteenth International Conference on Uncertainty in Artificial Intelligence*, pages 378–387, 2002.

Book Chapters

- [8] Christopher Cherniak, Zekeria Mokhtarzda, and Uri Nodelman (2002). “Optimal-wiring models of neuroanatomy” in Giorgio Ascoli (ed.) *Computational Neuroanatomy: Principles and Methods*. Humana Press.

Thesis

- [9] Uri Nodelman (2007). *Continuous Time Bayesian Networks*. PhD Thesis, Stanford University.

Other

- [10] Doug Barnett, Bob Beatty, Matthew Gibson, Uri Nodelman, Ann Toplovich, Jamil Zainaldin (2011). *Toward a Community of Practice: Initial Findings on Best Practices for Digital Encyclopedias*. Nashville: American Association for State and Local History (AASLH).