

# Stephanie Dick

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## Academic Positions

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- 2019 Franke Institute for the Humanities, University of Chicago (declined)  
*Visiting Scholar*
- 2018 **Max Planck Institute for the History of Science**  
*Visiting Scholar (May)*
- 2018-19 **Microsoft Research New York** (declined)  
*Visiting Researcher*
- 2017- **Department of History and Sociology of Science, University of Pennsylvania**  
*Assistant Professor*
- 2014-17 **Society of Fellows, Harvard University**  
*Junior Fellow*
- 2014-17 **Max Planck Institute for the History of Science** (declined)  
Post Doctoral Fellow

## Education

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- 2015 **Harvard University**  
*PhD in History of Science*  
Dissertation: *After Math: (Re)configuring Minds, Proof, and Computing in the Postwar United States*
- 2013 **University of Chicago**  
*Exchange Scholar with the Committee on Conceptual and Historical Studies of Science*
- 2008 **The University of Toronto**  
*MA in History and Philosophy of Science and Technology*
- 2007 **The University of King's College and Dalhousie University**  
*BA First Class Combined Honours, Departments of History of Science and Technology and Philosophy*

## Honors and Awards

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- 2016-17 *William F. Milton Fund Grant*. Harvard University.

- 2012-15 Alan Turing Centenary Fellowship in the *Turing Centenary Research Project: Mind Mechanism and Mathematics*. John Templeton Foundation.
- 2013 Harvard Horizons Scholar. *Graduate School of Arts and Sciences*, Harvard University.
- 2012 Term-Time Dissertation Research Grant. *Charles Warren Center for Studies in American History* (declined).
- 2012-14 Science, Technology, Society (STS) Doctoral Dissertation Research Improvement Grant. *National Science Foundation*.
- 2008-12 Doctoral Fellowship. *Social Sciences and Humanities Research Council of Canada*.
- 2008-09 Ontario Graduate Scholarship (declined).
- 2007-08 Graduate Fellowship and Graduate Admission Award. *University of Toronto Arts and Sciences*.
- 2007 King's University Medal for Honours Thesis in History of Science and Technology.
- 2002-07 King's University Entrance Scholarship, Frank Sobey Scholarship, King's University Scholarship.

## Publications

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### Research Publications

- 2019 "MACSYMA: The Difficulty with Simplification" in *British Journal for the History of Science*, Special Issue "Learning by the Book" (under review January 2019).
- 2018 "DLL Hell: Software Dependencies, Failure, and the Maintenance of Microsoft Windows" with Daniel Volmar, in *IEEE Annals of the History of Computing* (October-December 2018).
- 2017 "The Beckman Institute: Imagining Interdisciplinarity" in *The University of Illinois: Engine of Innovation*, ed. Frederick E. Hoxie (Urbana: University of Illinois Press, 2017).
- 2015 "Of Models and Machines: Implementing Bounded Rationality" in *Isis* Vol. 106, No. 3 (September 2015): 623 - 634.
- 2015 "Computer Science" in Georgina M. Montgomery, Mark A. Largent, eds. *A Companion to the History of American Science* (Wiley-Blackwell Publishing, December 2015): 55 - 68.
- 2013 "Machines Who Write" in *IEEE Annals of the History of Computing* Vol. 35, No. 2 (April-June 2013): 85-87.
- 2011 "AfterMath: The Work of Proof in the Age of Human-Machine Collaboration" in *Isis* Vol. 102, No. 3 (September 2011): 494-505.
- 2011 "Michel Coignet; Simple Theodolite and Plane Table Rule" in *Prints and the Pursuit of Knowledge in Early Modern Europe*, ed. Susan Dackerman (New Haven: Yale University Press): 354.

**General Audience**

- 2016 “Our AIs, Our Selves” in *Cosmologics Magazine*: <http://cosmologicsmagazine.com/stephanie-dick-our-ais-our-selves/>
- 2015 “The Future of Thinking: Computers and Minds in mid-Twentieth Century Imaginations,” in *Histories of the Future*: <http://histscifi.com/>
- 2014 “The Pirate Bay” in *Cosmologics Magazine*: <http://cosmologicsmagazine.com/stephanie-dick-the-pirate-bay/>

**Book Reviews**

- 2018 *It Began with Babbage: The Genesis of Computer Science* by Subrata Dasgupta (Oxford University Press 2014) in *Technology and Culture* (forthcoming).
- 2013 *Coming of Age with Quantum Information: Notes on a Paulian Idea* by Christopher A. Fuchs (Cambridge University Press, 2011) in *Isis* Vol. 104, No. 3 (September 2013): 646-647.
- 2013 *Pioneer of the Information Age* by B. Jack Copeland (Oxford University Press, 2013) in *Endeavor* Vol. 37, No. 4 (December 2013): 195 - 195.

**Academic Presentations**

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**Invited Talks**

- 2019 TBD. *University of California, San Diego, Science Studies Program Colloquium Series*. San Diego, San Diego, CA.
- 2019 TBD. *Institute of Advanced Studies, Lecture Series*. Princeton, NJ.
- 2019 TBD. *Princeton University, History of Science Program Colloquium*. Princeton, NJ.
- 2019 Making Up Minds: Mathematics and Computing in Postwar America. *Institute for the History and Philosophy of Science and Technology Colloquium Series*. University of Toronto. Toronto, Canada.
- 2018 Early Career Plenary Lecture on the History of Mathematics. *European Society for the History of Science Annual Meeting*. London, UK.
- 2018 Ten Thousand Mathematical Facts. *Beyond Code and Craft*. Franke Institute for the Humanities, University of Chicago. Chicago, IL.
- 2018 After Math: Reasoning, Computing, and Proof in the Postwar United States. *Johns Hopkins Department of History of Science and Technology Colloquium Series*. Baltimore, MA.
- 2018 *Colleagues, Assistant, and Servants: Mathematical Visions of Early Computers*. Programming Languages Research Group, University of Pennsylvania, PA.
- 2018 *Colleagues, Assistants, and Servants: Mathematical Visions of Early Computers*. Mathematics Department, University of Pennsylvania. Philadelphia, PA.

- 2017 "The Marxist in the Machine" at *The Intelligence of Algorithms*. Max Planck Institute for the History of Science. Berlin, Germany.
- 2017 The Automation of Proof. "Theory Group" Seminar Series. Department of Computer Science, University of Pennsylvania. Philadelphia, PA.
- 2017 The Marxist in the Machine. *University of Chicago, Committee for Conceptual and Historical Studies of Science, lecture series*. Chicago, IL.
- 2017 After Math: Reasoning, Computing, and Proof in the Postwar United States. *Big Proof Initiative*. Cambridge University, Isaac Newton Institute for Mathematical Sciences. Cambridge, UK.
- 2017 Remaking Reasoning. *AI Now Experts Workshop*. Media Lab, Massachusetts Institute of Technology. Cambridge, MA.
- 2017 After Math. *New York City History of Science Consortium Lecture Series*. New York, NY.
- 2016 Repeating Principia: Reasoning and Computing in the Post War United States. *Department of Philosophy Colloquium Series*. Carnegie Mellon University, Pittsburgh, PA.
- 2016 After Math: Reasoning, Proving, and Computing in the Postwar United States. *Program in the History of Science and Medicine Colloquium Series*. Yale University. New Haven, CT.
- 2016 "Reformalism." University of California, Irvine Department of English, Research Cluster on "Form." Irvine, CA.
- 2015 "Putting Mathematics into the Computer: Implementation and Epistemology in Early Automated Logic." *15th Congress of Logic, Methodology and Philosophy of Science*. Helsinki, Finland.
- 2015 "That is not Why." *history of data/data in history*. Columbia University Center for Science and Society. New York, NY.
- 2015 "More Powerful Principles: Exploring the Early Automation of Proof." *Mistakes Were Made: History of Computing, Decompiled*. The Intel Science and Technology Center for Social Computing, New York University. New York, NY.
- 2015 "After Math: Following Mathematics into the Digital." *Microsoft Research New England Colloquium Series*. Cambridge, MA.
- 2015 "The Future of Thinking: Computers and Minds in Mid-Twentieth Century Imaginations." Princeton Workshop in the History of Science. Princeton, NJ.
- 2015 "Constructing a Mathematical Laboratory": An Early History of Computer Algebra Systems. *Joint Meeting of the American Mathematical Society and the Mathematics Association of America*. San Antonio, TX.
- 2014 "After Math: Following Mathematics into the Digital." *Philadelphia Area Seminar on History of Mathematics*. Philadelphia, PA.

- 2014 “(Re)configuring Minds, Proof, and Computing in the Postwar United States.” *2014 Turing Centenary Research Project Workshop*. New York, NY.
- 2014 “The Agency of Servers: Humans and Nonhumans in the Pirate Bay Trial.” *Scientific Orthodoxy*. Mahindra Humanities Center, Harvard University. Cambridge, MA.
- 2014 “Aftermath: Following Mathematics into the Digital.” MIT Program in Science, Technology, and Society, *Special Seminar*. Massachusetts Institute of Technology. Cambridge, MA.
- 2013 “Programming Proof: Introducing Computers to the Work of Mathematics.” *Explorers and Pirates: Digital creators and the creation of value(s)*. The European University at Saint Petersburg. Saint Petersburg, Russia.
- 2013 “Reproving *Principia*: Automated Theorem Proving and the Materials of Mathematics.” *American Mathematical Society Eastern Section Meeting*. Philadelphia, PA.
- 2013 “Reformalism: automated theorem proving and the materials of mathematics.” *International Congress of History of Science, Technology and Medicine*. Manchester, UK.
- 2013 “Aftermath: Historical Explorations of Early Automated Reasoning.” *2013 Turing Centenary Research Project Workshop*. Milan, Italy.
- 2013 “Displacing the Hand: Translating Proof into Computation.” *Mathematics, Philosophy, and Literature*. Mahindra Humanities Center, Harvard University. Cambridge, MA.
- 2013 “Coded Collaboration: Doing Mathematics with Computers in the Second Half of the Twentieth Century.” Harvard Kennedy School *STS Circle*.
- 2013 “Following Mathematics into the Digital: Early Automated Theorem-Proving in the United States.” *Fishbein Workshop in the History and Philosophy of Science*, University of Chicago.
- 2012 “Designing Intuition: Computing and Mathematical Proof.” *Joint Meeting of the American Mathematical Society and the Mathematics Association of America*. Boston, MA.

### Conference Presentations

- 2018 “‘The Standard Head’: Identification, Formalization, and Standardization in an Early Facial Recognition Program.” *History of Science Society Annual Meeting*. Seattle, WA.
- 2017 “Technological Logics.” *Organization of American Historians Annual Meeting*. New Orleans, LA.
- 2016 “The QED Manifesto.” *History of Science Society Annual Meeting*. Atlanta, Georgia.
- 2016 “MACSYMA.” *4S/EASST*. Barcelona, Spain.
- 2016 “Games of Chance in the AI Winter.” *Society for the History of Technology Annual Meeting*. Singapore.
- 2016 “Maintaining the Novel: Legacy and Longevity in Microsoft Windows,” with Daniel Volmar. *The Maintainers*. Stevens Institute of Technology. Stevens, NJ.

- 2015 “Encoding and Intervening.” *History of Science Society Annual Meeting*. San Francisco, CA.
- 2015 “Implementation and Epistemology in Early Computer Mathematics.” *British Society for the History of Science Annual Conference*. Swansea, Wales.
- 2015 “Programming Proof.” *American Historical Association Annual Meeting*. New York, NY.
- 2014 “Mathematical Objects in Action: Proof in the Time of Computation.” *The Digital Subject: Temporalities*. Paris, France.
- 2014 “Looking for Limits: Configuring Minds, Mathematics, and Machines in the Mid-Twentieth Century” in *Bounded Rationalities*, Plenary Session at the *History of Science Society Annual Meeting*. Chicago, IL.
- 2013 “‘Mathematical Objects in Action’: Ontological Entanglements of Mathematics and Computing.” *History of Science Society Annual Meeting*. Boston, MA.
- 2013 “Following Mathematics into the Digital: Historical Explorations of Early Automated Theorem Proving.” *Computability in Europe (CiE)*. Milan, Italy.
- 2013 “Rewriting *Principia Mathematica* into the Digital: Automated Theorem Proving and the Media of Mathematics.” *Harvard-Yale Graduate Conference in Book History*. Cambridge, MA.
- 2012 “‘Buying Originality’: two approaches to the automation of logical proof.” *Society for the History of Technology Annual Meeting*. Copenhagen, Denmark.
- 2011 “The Geometer in the Machine: Diagrammatic Heuristics and Early Artificial Intelligence.” *History of Science Society Annual Meeting*, in the Official Sponsored Session of the *Forum for the History of the Mathematical Sciences*. Cleveland, OH.

### Roundtables, Public Lectures, and Panels

- 2018 A History of Computing. *Princeton Adult School Series*, “Computers in Our Lives.” Princeton, NJ.
- 2018 “Making Up Minds: Thinking With, About, and For Humans”. *Automatons: From Ovid to AI*, Public Lecture Series at the University of King’s College. Halifax, NS.
- 2018 It’s Alive! Frankenstein in the Modern World. *In Conversation with the Rosenbach*, Rosenbach Library. Philadelphia, PA.
- 2015 “Encoding and Intervening” in *Roundtable: Writing Histories of Data*. History of Science Society Annual Meeting. San Diego, CA.
- 2014 “The Media of Scholarship” with Peter Galison. *GSAS Alumni Symposium*. Harvard University. Cambridge, MA.

### Teaching

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**Courses**

- 2019 *Information Age*. Undergraduate Lecture Course. History and Sociology of Science, University of Pennsylvania.
- 2019 *Making Up Minds*. Freshman Seminar. History and Sociology of Science, University of Pennsylvania.
- 2018 *Prove It! Mathematics and Certainty*. Undergraduate Seminar. History and Sociology of Science, University of Pennsylvania.
- 2018 *Seminar in History and Sociology of Science*. Graduate Seminar. History and Sociology of Science, University of Pennsylvania.
- 2018 *Digital Democracy*. Advanced Undergraduate Seminar. History and Sociology of Science, University of Pennsylvania.
- 2018 *Cyberculture*. Undergraduate Seminar. History and Sociology of Science, University of Pennsylvania.
- 2018 *Information Age*. Undergraduate Lecture Course. History and Sociology of Science, University of Pennsylvania.
- 2017 *Digital Democracy*. Advanced Undergraduate Seminar. History and Sociology of Science, University of Pennsylvania.
- 2014 *Computing People*. Graduate Seminar. Program in STS, European University at Saint Petersburg.

**Senior Thesis Advisor**

- 2018-19 Folasade Lapite.
- 2018-19 Avalon Morell.
- 2017-18 Lauren Murski. *The System Will See You Now: Redefining Quality Care in the Era of the Electronic Health Record*. University of Pennsylvania.
- 2011-12 Betsy Isaacson: *The Saint of Cyborgs: Saint Jude, Mondo 2000, And The Making of A Hacker Nation*. Harvard University.
- 2011-12 Angela Liu: *Bioethics in Government Commissions: History, Function and Discourse*. Harvard University.
- 2010-11 Grace Kim: *(Re)producing Art: Images And History in Art Conservation and Neuroaesthetics*. Harvard University.

**Harvard University Teaching Fellow**

- 2012      *Tutorial - Sophomore Year* (HistSci 97). Prof. Anne Harrington. Spring.  
Received Harvard University Certificate of Distinction in Teaching
- 2011      *Knowing the World* (HistSci 100). Prof. Adelheid Voskuhl. Fall.
- 2011      *The Einstein Revolution* (Sciences of the Physical Universe 17). Prof. Peter Galison. Spring.

**University of Toronto Teaching Assistant**

- 2007      *History of Science* (HPS 280 for students in Applied Sciences and Engineering). Physics.  
Prof. Victor Boantza. Fall.

**Dalhousie University Grader**

- 2007      *Understanding Scientific Reasoning* (Phil 2660). John Davie. Summer.
- 2007      *Introduction to Philosophy* (Phil 1010). Prof. Michael Hymers. Spring

**Museum Experience****Exploratorium, San Francisco**

- 2014      Exploratorium and Harvard Department of History of Science Collaborative Workshop.  
Aimed at cross-fertilization of DHS and Exploratorium cultures and prototyping of historical and interactive exhibits.

**Collection of Historical Scientific Instruments, Harvard University**

- 2012      Writer, Director. Original stage play, *Go Ask A.L.I.C.E.: Exploratory Vignettes* performed by American Repertory Theater actors in the exhibit "Go Ask A.L.I.C.E.: Turing Tests, Parlor Games, & Chatterbots."
- 2011-12   Wheatland Curatorial Fellow. Co-curator, "Go Ask A.L.I.C.E.: Turing Tests, Parlor Games, & Chatterbots."
- 2010      Student Curator. "Paper Worlds: Printing Knowledge in Early Modern Europe." Curated by students of History of Science Seminar 215r: *Science & Culture in Late Medieval & Early Modern Europe*.
- 2009-12   Cataloguer. ~500 objects related to mathematics, navigation, calculation, and computing.

**Professional Service**

- 2019-21   Council Member. *History of Science Society Council* (elected position).
- 2020      Conference Organizational Committee. *The SHOT Special Interest Group for Computers, Information, and Society*. Milan, Italy.



- 2019 Conference Organizational Committee. *The SHOT Special Interest Group for Computers, Information, and Society*. St. Louis, MI.
- 2018 Panel Organizer. *Bodies of Formalization*. *History of Science Society Annual Meeting*. Seattle, WA.
- 2018 Conference Organizational Committee. *The SHOT Special Interest Group for Computers, Information, and Society*. Philadelphia, PA.
- 2018 Ad hoc reviewer, NSF.
- 2018 Ad hoc reviewer, *Historical Studies in the Natural Sciences*.
- 2018 Ad hoc reviewer, *European Journal of Economic Thought*.
- 2017 Conference Organizational Committee. *The SHOT Special Interest Group for Computers, Information, and Society*. Philadelphia, PA.
- 2016 Ad hoc reviewer, *Isis*.
- 2013 Ad hoc reviewer, *IEEE Annals of the History of Computing*.
- 2013 Panel Organizer: *Historical Ontologies*. *History of Science Society Annual Meeting*. Boston, MA.
- 2013 Compiled and directed original stage play, *The Greatest Witness: A Theatrical Exploration of Galileo's "Solar Spots."* Performed at the conference *Heavenly Imperfection: Galileo's Discovery of Sunspots*. Harvard University, Cambridge, MA.
- 2013 Compiled and directed original stage play, *Mathematical Patterns*. Performed at the workshop *Mathematics, Philosophy, and Literature*, Mahindra Humanities Center, Harvard University.
- 2012 Panel Organizer: *Made in Automation*. *Society for the History of Technology Annual Meeting*. Copenhagen, Denmark.
- 2011-12 Co-Organizer of the Modern Sciences Working Group.
- 2011 Organizer of Phunday workshop in the history of the physical sciences.

## References

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**Professor Peter Galison** (dissertation advisor, general exam field supervisor)

Joseph Pellegrino University Professor  
Department of History of Science  
Department of Physics  
Director, Collection of Historical Scientific Instruments  
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**Professor Stefan Helmreich** (dissertation committee member, general exam field supervisor)

Professor of Anthropology  
Massachusetts Institute of Technology  
Cambridge, MA 02142, USA  
sgh2@mit.edu

**Professor Barry Mazur** (dissertation committee member)

Gade University Professor  
Department of Mathematics  
Harvard University  
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**Professor Jimena Canales** (dissertation committee member)

Associate Professor of History of Science  
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**Professor Mario Biagioli** (general exam field supervisor)

Distinguished Professor of Law and Science and Technology Studies  
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**Professor Joan Richards** (general exam field supervisor)

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Brown University  
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**Jean-Francois Gauvin** (supervisor at Collection of Historical Scientific Instruments)

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