

Anna Wexler

Ph.D. Candidate, HASTS (History, Anthropology, Science, Technology & Society) Program
Massachusetts Institute of Technology

EDUCATION

- Massachusetts Institute of Technology** 2012 – present
Ph.D. candidate in the HASTS (History, Anthropology, Science, Technology and Society) Program.
Dissertation title: “Sparking Controversy: the Contested Use of Noninvasive Electrical Brain Stimulation.” Ph.D. Committee: Professors Susan Silbey (advisor), Natasha Schüll, & Erica James.
Expected date of completion: May 2017.
- Massachusetts Institute of Technology** 2007
Bachelor’s of Science, Brain and Cognitive Science
Bachelor’s of Science, Humanities and Science with a focus in Writing and Neuroscience

WORK EXPERIENCE/APPOINTMENTS

- Visiting Scholar, Center for Neuroscience and Society, University of Pennsylvania 2015 – 2016
- Freelance Science Writer/Editor, Tel Aviv, Israel 2008 – 2012
- WGBH Filmmaker-in-Residence, Boston, MA 2007 – 2008
- Research Consultant, Osher Institute, Harvard Medical School 2007 – 2008
- Research Assistant, MIT Brain and Cognitive Sciences Department 2003 – 2008

SCHOLARSHIP

Journal Publications

Wexler, Anna. (in press, *Journal of the History of Medicine and Allied Sciences*). “The Medical Battery in the United States (1870-1920): Electrotherapy at Home and in the Clinic.”

Wexler, Anna, and Hamilton, Roy H. (in press, *American Journal of Bioethics-Neuroscience*). “Crowdsourced tDCS Research: Feasible or Fanciful?”

Wexler, Anna. (2016). “Recurrent Themes in the History of the Home Use of Electrical Stimulation: Transcranial Direct Current Stimulation (tDCS) and the Medical Battery (1870-1920).” *Brain Stimulation*, published online first, December 2016.

Wexler, Anna. (2016). "The practices of do-it-yourself brain stimulation: implications for ethical considerations and regulatory proposals." *Journal of Medical Ethics*, 49 (4): 211-215.

Wexler, Anna. (2016). "Seeding Controversy: Did Israel 'Invent' the Cherry Tomato?" *Gastronomica: the Journal of Critical Food Studies* 16(2):1-11.

Wexler, Anna. (2015). "A pragmatic analysis of the regulation of consumer transcranial direct current stimulation devices in the United States." *Journal of Law and the Biosciences*, 2 (3): 669-696.
(Selected for peer commentary)

Kerr, CE, Jones, SR, Wan, Q, Pritchett, DL, Wasserman, RH, Wexler, A, Villanueva, JJ, Shaw, JR, Lazar, SW, Kaptchuk, TJ, Littenberg, R, Hämäläinen, MS, & Moore, CI. (2011). Effects of mindfulness meditation training on anticipatory alpha modulation in primary somatosensory cortex. *Brain Research Bulletin*, 85, 96-103.

Saxe, Rebecca & Wexler, Anna. (2005) Making sense of another mind: the role of the right temporoparietal junction. *Neuropsychologia*, 43(10), 1391-1399.

Book Chapters

Wexler, Anna, & Reiner, Peter. "Home Use of tDCS transitions from Do-it-Yourself to Direct-to-Consumer." Forthcoming in Routledge *Handbook of Neuroethics* (spring 2017).

Book Reviews

Wexler, Anna. (2016). Review of *The Language of Food: A Linguist Reads the Menu* by Dan Jurafsky. *Gastronomica: the Journal of Critical Food Studies* 16(1):107, [doi:10.1525/gfc.2016.16.1.107](https://doi.org/10.1525/gfc.2016.16.1.107).

Authored Articles for the General Public

[Zapping their Brains at Home](#) *The New York Times*, July 22, 2016

[Consumer Neurotechnology: New Products, More Regulatory Complexity](#) *The Neuroethics Blog*, June 14, 2016

[At Tribeca, 'Vaxxed' Gets Axed and Science Wins \(For Now\)](#), *Undark*, March 27, 2016

["Dialing up Your Brain Power"](#) *Slate*, December 18, 2015

Invited Talks

December 28, 2016: "Seeding Controversy: Did Israel Invent the Cherry Tomato?"
Limmud Conference, Birmingham, UK

December 6, 2016: "Do it Yourself Brain Stimulation and Citizen Science"
American Association for the Advancement of Science (AAAS), Washington, DC

November 3, 2016: "Do It Yourself Brain Stimulation: Innovation by Independent Communities"
Innovation Lab Workshop, MIT, Cambridge, MA.

September 7, 2016: "Ethical and Legal Aspects of Transcranial Stimulation," Practical Course in Transcranial and Magnetic Electric Stimulation, German Neuroscience Society, Göttingen, Germany.

September 6, 2016: "Legal and Regulatory Aspects of Transcranial Direct Current Stimulation"
Neurostimulation Safety Conference, Max Planck Institute, Göttingen, Germany.

August 3, 2016: Panel Moderator: “Selective vs. Therapeutic Enhancement,” Human X Design Conference, Paley Center for Media, New York, NY.

January 21, 2016: Invited panelist, Human Performance Enhancement Workshop (panel title: “Regulation of invasive and noninvasive enhancements: safety/efficacy, security, and privacy”). American Academy of Arts and Sciences, Cambridge, MA.

November 20, 2015: FDA Workshop: “Neurodiagnostics and Non-Invasive Brain Stimulation Medical Devices Workshop,” FDA White Oak Campus, Silver Spring, MD. Webcast recording available [here](#).

November 5, 2015: “From Do-it-Yourself to Direct-to-Consumer: the Regulation of Consumer Noninvasive Brain Stimulation Devices,” Center for Neuroscience and Society, University of Pennsylvania. Video recording available [here](#).

October 21, 2015: “Brain Hacking to Boost Your A-Game: The Ethics of Cognitive Enhancement in Gaming and Competition” (Panel Discussion with Prof. Julian Savulescu & Prof. Aaron Kesselheim), Harvard Center for Bioethics, Harvard University. Video recording available [here](#).

October 6, 2015: “Sparking Controversy: The Contested Use of Electrical Brain Stimulation,” Bakken Museum of Electricity and Life, Minneapolis, MN.

September 21, 2015: “Practices of Do-It-Yourself Electrical Brain Stimulation: Implications for Ethics and Regulation,” Citizen Science Working Group, National Institute of Health (NIH).

March 4, 2015: “Practices of Do-It-Yourself Electrical Brain Stimulation: Implications for Ethics and Regulation,” Pellegrino Center for Clinical Bioethics, Georgetown University, Washington DC.

Jun 27, 2011: panelist, “Picture This: The Art and Craft of Science Storytelling in Film,” World Conference of Science Journalists, Doha, Qatar.

Conference Presentations

1. Wexler, Anna and Fitz, Nicholas. “Who Actually Uses Non-Invasive Brain Stimulation Technologies, And Why? A Study Of Consumer Transcranial Direct Current Stimulation (tDCS) Device Users.”*

International Neuroethics Society Annual Meeting, San Diego, CA, November 10-11, 2016

*Winner of Elsevier Prize for Top Poster

2. Wexler, Anna. “Re(current) Issues in Neuroethics: The Importance of Looking to the Past to Understand the Future.”

- Neuroethics Network, Paris, France, June 29-July 1, 2016
- International Neuroethics Society Annual Meeting, San Diego, CA, November 10-11, 2016

3. Wexler, Anna. “A Pragmatic Analysis of the Regulation of Consumer Transcranial Direct Current Stimulation (tDCS) Devices in the United States.”*

International Neuroethics Society Meeting, Chicago, IL, October 15-16, 2015.

*Selected as top abstract for publication in *American Journal of Bioethics – Neuroscience*.

4. Treene, Lauren, Wexler, Anna, and Giordano, James. "Toward an integrative database of/for transcranial electrical stimulation: Defining need, and positing approaches, benefits and caveats." International Neuroethics Society Meeting, Chicago, IL, October 15-16, 2015.
5. Wexler, Anna. "Understanding the practices of the do-it-yourself brain stimulation community: implications for regulatory proposals and ethical discussions."
 - International Neuroethics Society Annual Meeting, Washington DC, November 14, 2014
 - New York City Neuromodulation Conference, New York, NY, January 9-11, 2015
 - Montreal Neuroethics Conference for Young Researchers, Montreal, QC, Canada, April 17, 2015.
6. Wexler, Anna. "What is a Medical Device? The Implications of the Food and Drug Administration's Definition for the Regulation of Consumer Neurotechnology" Neuro-interventions and the Law Conference: Regulating Human Mental Capacity, Atlanta, GA, September 12-14, 2014.
7. Khalsa S.S., Rudrauf, D., Wexler, A., Naqvi N.H., Damasio, A.R., & Tranel, D. (2006). Looking within: does meditative experience enhance interoceptive awareness? Cognitive Neuroscience Society Conference, 2006.

Grants and Funding Awards

MIT Graduate Student Council Travel Fund Grant	2016
Bakken Museum of Electricity and Life (Minneapolis, MN), Travel Grant	2015

Select News Media Coverage of Research

[Non-Surgical Brain Stimulation Shows Promise, but Unknowns Remain](#)

US News and World Report | August 30, 2016

[Regulation of Brain-stimulating Devices Unclear as Popularity Grows in US](#)

Voice of America | August 29, 2016

[Do-it-yourself Brain Stimulation has Hidden Risks](#)

Reuters | July 22, 2016

[The Contentious History of the Cherry Tomato](#)

Smithsonian | June 20, 2016

[Who Invented the Cherry Tomato?](#)

The Atlantic | June 14, 2016

[Brain Stimulation and You: How Does it Work and Can it Really Juice Up Your Thinking Cap?](#)

Medical News Daily | April 8, 2016

["Stimulus Plan?"](#) (profile of my research)

MIT News | December 18, 2015

[“Weird World of Brain Hacking”](#)
Wall Street Journal | November 10, 2015

Radio/Podcast Coverage of Research

[DIY Diagnosis](#)
Big Picture Science | August 29, 2016

[Caution, May Backfire: Neuroscientists’ Open Letter to DIY Brain Hackers](#)
WBUR | July 11, 2016

[Who Invented the Cherry Tomato?](#)
Gastropod | June 2016

[DIY tDCS Podcast: Regulating tDCS](#)
DIYtDCS | March 13, 2016

[Electrical Brain Stimulation Moves from Lab to Home, Experts Wary](#)
The Current, Canadian Broadcasting Corporation (CBC) | October 13, 2015

Teaching Experience

<i>Massachusetts Institute of Technology</i> Teaching assistant, “Foundations of Internet Policy”	Fall 2014
<i>Massachusetts Institute of Technology</i> Teaching assistant, “Bioethics”	Spring 2014
<i>Massachusetts Institute of Technology</i> Teaching assistant, “Ethics and the Law on the Electronic Frontier”	Fall 2013

SERVICE

MIT Institutional Review Board (COUHES), member	2014-2015
MIT Committee on Intellectual Property, member	2014-2015
Planned Parenthood, volunteer	2014-2015
MIT Educational Counsel, member	2009-2011

OTHER HONORS/AWARDS/AFFILIATIONS

International Neuroethics Society, student member	2013-present
Sattya Media Arts Collective (board member)	2013–2014
Asylum: International Jewish Artist Retreat (fellow)	2013
Israel Association of Science Communicators (member)	2010–2012
Robert A. Boit Essay Prize, First Place	2007
DeWitt Wallace Prize for Science Writing for the Public, Second Place	2007
Walle Nauta Award for Outstanding Research	2007
Hans-Lukas Teuber Award for Outstanding Academics	2007

Austin Kelly III Essay Prize, Second Place	2007
Explorers Club (elected to membership)	2007-2009
Sigma Xi, the Scientific Research Society (elected to membership)	2007-2008
Robert A. Boit Manuscript Prize, First Place	2005
Robert A. Boit Essay Prize, First Place	2004

OTHER EXPERIENCE

Select Film Production

[UNORTHODOX](#) (2013) Co-Director, Co-Producer, Co-Writer, Co-Editor

Feature-length, 90 minute personal documentary film about rebellious Modern Orthodox American Jewish teenagers who spend a year studying in seminary in Israel.

- Premiered at the Institute for Contemporary Art in Boston (Nov 2013) as part of the Boston Jewish Film Festival and played at over a dozen film festivals and venues in the United States, United Kingdom, Switzerland, and Israel
- Recipient of nine grants
- Successful Kickstarter campaign (2012)
- Two-dozen in-person appearances and Q&A sessions
- Available on digital outlets (iTunes, Hulu, Amazon)
- Press coverage in Boston Globe, Times of Israel, The Forward, and others