

RYAN NELSON ELLIS
Curriculum Vitae | May 26, 2022

CONTACT INFORMATION

Department of Communication Studies
Northeastern University
360 Huntington Ave.
Boston, Massachusetts 02115
Email: r.ellis@northeastern.edu

EDUCATION

Ph.D., Communication, University of California, San Diego, 2011
Dissertation: Networks, Deregulation, and Risk: The Politics of Critical Infrastructure Protection
Committee members: Robert Horwitz (Chair), Lewis Branscomb, Gary Fields, Michael Schudson, and Akos Rona-Tas

M.A., Communication, University of California, San Diego, 2005

B.A., Communication and Sociology, Boston College, 2002

RESEARCH INTERESTS

Infrastructure politics, information and communication technologies, regulation, science and technology policy, risk, cybersecurity, homeland security

ACADEMIC APPOINTMENTS AND AFFILIATIONS

Northeastern University, Boston, MA

2021-Present Associate Professor, Department of Communication Studies
2015-2021 Assistant Professor, Department of Communication Studies
2021-Present Faculty Affiliate, Cybersecurity and Privacy Institute
2018-Present Faculty Affiliate, School of Public Policy and Urban Affairs
2017-Present Faculty Affiliate, Global Resilience Institute

Data & Society Research Institute, New York, NY

2019-Present Affiliate

Harvard University, Cambridge, MA

2017-2019 Affiliate, Cyber Security Project, Belfer Center for Science and International Affairs, John F. Kennedy School of Government
2015-2017 Associate, Cyber Security Project, Belfer Center for Science and International Affairs, John F. Kennedy School of Government
2012-2015 Postdoctoral Fellow, Belfer Center for Science and International Affairs, John F. Kennedy School of Government

Naval Postgraduate School, Monterey, CA

2012-2016 Instructor, Center for Homeland Defense and Security (Supplied by MAC Consulting)

Stanford University, Palo Alto, CA

2011-2012 Postdoctoral Fellow, Center for International Security and Cooperation

University of California, San Diego, La Jolla, CA

2010-2011 Program Manager, Institute on Global Conflict and Cooperation

2008-2011 Lecturer, Department of Communication

2006-2008 Research Fellow, Institute on Global Conflict and Cooperation

FELLOWSHIPS, HONORS, AND AWARDS

2019-2020 College of Arts, Media, and Design (CAMD) Dean's Research Fellowship, Northeastern University

2017-2018 Carnegie Fellow, School of International and Public Affairs, Columbia University

2012-2015 Postdoctoral Fellowship, Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University

2011-2012 Postdoctoral Fellowship, Center for International Security and Cooperation, Stanford University

2009 Labor Research Grant, Institute for Research on Labor and Employment, University of California, Los Angeles

2009 Dissertation Fellowship, University of California, San Diego (UCSD)

2009 Dean of Social Sciences Travel Fund Award, University of California, San Diego

2008 Rita Lloyd Moroney Award for Scholarship on Postal History, awarded for "Binding the Nation Together: The Politics of Postal Service"

EXTERNALLY FUNDED GRANTS

Northeastern (Total Funded: \$1,826,296)

2022-2024 **Ryan Ellis (PI)**, William Robertson (Co-PI), Katie Moussouris (Senior Personnel). *Making Security Work: Vulnerability Disclosure Programs (VDPs) and the Organizational Foundations of Cybersecurity*. National Science Foundation, Science of Organizations (SoO) Program. Award Under Review: \$341,342.

2021-2022 Megan Finn (PI); **Ryan Ellis (Co-PI)**; Amelia Acker (Co-PI). *COVID Data Infrastructure Builders*. Ford Foundation/Sloan Foundation/Mozilla. Award: \$100,000.

- 2021-2022 Megan Finn (PI); **Ryan Ellis (Co-PI)**; Amelia Acker (Co-PI). *International Collaboration: COVID Data Infrastructure Builders*. National Science Foundation, Office of International Science and Engineering. Award: \$200,000.
- 2020-2023 Jennie C. Stephens (PI); **Ryan Ellis (Co-PI)**; Laura Kuhl (Co-PI); Co-PI Marla Perez (Co-PI); Cecilio Ortiz (Co-PI). *Power in Puerto Rico: Sociotechnical Imaginaries, Infrastructure Publics, and Electricity*. National Science Foundation, Science and Technology Studies (STS) Program. Award: \$527,704.
- 2019-2022 **Ryan Ellis (PI)**; William Robertson (Co-PI). *Improving the Bug Bounty System*. National Science Foundation, Secure and Trustworthy Cyberspace (SaTC) Program. Award: \$316,000.
- 2018-2021 **Ryan Ellis (PI)**; Yuan Stevens (Co-Investigator). *The Cultural Logics of Bug Bounty Programs*. Data & Society Research Institute. Award: \$15,000.
- 2017-2018 **Ryan Ellis (PI)**. *'No More Free Bugs': The History, Organization, and Implications of the Market for Software Vulnerabilities*. Columbia University's School of International and Public Affairs (SIPA) and the Carnegie Corporation. Award: \$8,000.
- 2017-2018 Rebecca Slayton (PI); **Ryan Ellis (Co-PI)**. *Strengthening Local and Regional Regulatory Capacities for Cyber-Resilience*. Critical Infrastructure Resilience Institute (CIRI). NU Sub-Award: \$143,750 (\$16,642 sub-award).
- 2017 Steve Flynn (PI); Eric Holdeman (Co-PI); Matthias Ruth (Co-PI); Jennie C. Stephens (Co-PI); Noah Dormady (Co-PI); **Ryan Ellis (Co-PI)**. *Resilience Governance for Infrastructure Dependencies and Interdependencies*. Critical Infrastructure Resilience Institute (CIRI). Award: \$175,000.

Harvard and University of California, San Diego (Total Funded: \$385,072)

- 2016-2017 Michael Siegel (PI); Harvard PI: Venkatesh Narayanamurti (PI); **Ryan Ellis (Fellow)**. *Global Vulnerability Markets: Using Dynamic Simulations to Change the Discovery, Supply, Demand, and Use of Vulnerabilities*. Department of Defense Minerva Initiative. Award: \$187,572.
- 2014-2015 Michael Siegel (PI); Venkatesh Narayanamurti (PI); **Ryan Ellis (Fellow)**. *Cyber Vulnerabilities and Bug Bounty Programs*. Facebook. Award: \$196,000.

2009-2012 **Ryan Ellis (PI)**. *Disinfection Mail: Disease, Panic, and the Post Office in Late 19th Century America*. Smithsonian Institution/National Postal Museum. Award: \$1,500.

INTERNALLY FUNDED GRANTS (Total Funded: \$137,376)

2019-2020 **Ryan Ellis (Co-PI)**; Jay Cephas (Co-PI); Adriana Knouf (Co-PI); Victor Zappi (Co-PI). *Interdisciplinary Approaches to Data Analysis and Security Landscapes: Authentication Under the Lens*. College of Arts, Media, and Design (CAMD) Dean's Research Fellowship, Northeastern University. Award: \$15,000.

2018-2020 **Ryan Ellis (PI)**; Rob Knake (Co-PI); Tommaso Melodia (Co-PI). *Creating a Resilient Internet of Things (IoT)*. Northeastern University, Global Resilience Institute (GRI). Award: \$90,500.

2019 **Ryan Ellis (PI)**. *How Hacking Went Pro: Security Research, Infrastructure Labor, and the Limits of Legal Protections*. Northeastern University, College of Arts, Media, and Design (CAMD) Research, Scholarship and Creative Activity Dissemination Grant. Award: \$1,043.

2017-2018 Jennie C. Stephens (Co-PI); **Ryan Ellis (Co-PI)**; Sanjeev Mukerjee (Co-PI); Edmund Yeh (Co-PI); Michael Kane (Co-PI); Ali Abur (Co-PI). *Northeastern Collaborative on Resilient Energy (N-CORE)* Northeastern University, Global Resilience Institute (GRI). Award: \$30,833.

PUBLICATIONS

Books

Ryan Ellis. *Letters, Power Lines, and Other Dangerous Things: The Politics of Infrastructure Security*. Cambridge, MA: MIT Press, 2020.

Ryan Ellis and Vivek Mohan (eds.). *Rewired: Cybersecurity Governance*. Hoboken, NJ: Wiley, 2019.

Research Reports

Ryan Ellis and Yuan Stevens. *Bounty Everything: Hackers and the Making of the Global Bug Marketplace*. Data & Society, 2022. Available Online: <https://datasociety.net/library/bounty-everything-hackers-and-the-making-of-the-global-bug-marketplace/>.

Lewis M. Branscomb, Mark Fagan, Philip Auerswald, Ryan Ellis, and Raphael Barcham. "Rail Transportation of Toxic Inhalation Hazards: Policy Responses to the Safety and Security Externality." Working Paper. Mossavar-Rahmani Center for Business & Government, Belfer Center for Science and International Affairs, and Taubman Center for State and Local Government. John F. Kennedy School of Government, Harvard University, 2010.

Susan Shirk, Philip Auerswald, Lewis M. Branscomb, Michael Kleeman, Todd M. La Porte, and Ryan Ellis. *Critical Infrastructure and Control Systems Security Curriculum*. Department of Homeland Security. Washington, DC: DHS, 2008.

Peer-Reviewed Publications

Ryan Ellis. "Disinfecting the Mail: Disease, Panic, and The Post Office in 19th Century America." *Information & Culture: A Journal of History*. 52.4 (2017): 436-461.

Ryan Ellis. "Regulating Cybersecurity: Institutional Learning or a Lesson in Futility?" *IEEE Security & Privacy*. 12.6 (2014): 48-54.

Ryan Ellis. "Creating a Secure Network: The 2001 Anthrax Attacks and the Transformation of Postal Security." *Disasters and Politics: Materials, Preparedness and Governance*. Manuel Tironi, Israel Rodríguez-Giralt, and Michael Guggenheim, eds. The Sociological Review Monograph Series. Wiley-Blackwell, 2014: 161-182.

Ryan Ellis. "The Premature Death of Electronic Mail: The United States Postal Service's E-COM Program, 1978-1985." *International Journal of Communication*. Vol. 7 (2013): 1949-1967.

Lewis M. Branscomb, Ryan Ellis, and Mark Fagan. "Between Safety and Security: The Policy Challenges of Transporting Toxic Inhalation Hazards." *Journal of Homeland Security and Emergency Management*. 9.2 (2012).

Book Chapters and Invited Articles

Ryan Ellis. "'No More Free Bugs': The History, Organization and Implications of the Market for Software Vulnerabilities." *Tech and Policy Initiative, Working Paper Series #2*. School of International and Public Affairs (SIPA), Columbia University. 2019. 19-40.

Andreas Kuehn and Ryan Ellis. "Bug Bounty Programs: Institutional Variation and the Different Meanings of Security." *Rewired: Cybersecurity Governance*. Hoboken, NJ: Wiley, 2019. 175-193.

Ryan Ellis. "Anatomy of a Failed Intervention: The FCC Revisits Municipal Broadband." *Interventions: Communication Research and Practice*. A. Shaw and D.T. Scott (eds.). New York: Peter Lang, 2018. 131-142.

Ryan Ellis, Keman Huang, Michael Siegel, Katie Moussouris, and James Houghton. "Fixing a Hole: The Labor Market for Bugs." *New Solutions for Cybersecurity*. Howard Shrobe, David L. Shrier, and Alex Pentland (eds.). Cambridge, MA: MIT Press, 2018: 129-159.

Noah Dormady and Ryan Ellis. “Energy-Transport Sector Interdependence in Extreme Events: The Case of a Hurricane Event in Boston.” *Current Sustainable/Renewable Energy Reports*. 5.1 (2018): 1-13.

Trey Herr and Ryan Ellis. “Disrupting Malware Markets.” *Cyber Insecurity: Navigating the Perils of the Next Information Age*. Richard M. Harrison and Trey Herr (eds.). New York: Rowman & Littlefield, 2016: 105-122.

Ryan Ellis. “The Vulnerability Economy: Zero-Days, Cybersecurity, and Public Policy.” Harvard Kennedy School Case Program. Harvard Business Publishing, 2015.*

*2nd most popular case study in Harvard Kennedy School Case Program History (out of 1,542 cases). Adopted by over 85 institutions in 31 countries.

Ryan Ellis. “Cybersecurity Policy: A Review.” *Critical Infrastructure Protection in Homeland Security: Defending a Networked Nation*. 2nd Edition. Ted Lewis (ed.). Hoboken, NJ, 2014: 163-178.

Patrick Lagadec, Erwann O. Michel-Kerjan, and Ryan Ellis. “Disaster via Airmail: The Launching of a Global Reaction Capacity After the 2001 Anthrax Attacks.” *Innovations: Technology, Governance, Globalization* 1.3 (2006): 99-117.

Other Publications: Public Scholarship

Ryan Ellis. “Zero Day”: Buggy Codes and the Cyberweapons Arms Race,” *The Reboot*, March 2021. Available Online: <https://thereboot.com/zero-day-buggy-code-and-the-cyberweapons-arms-race/>.

Ryan Ellis. “The Politics of Postal Reform Have Always Been Part of USPS History.” *TIME Magazine*. Excerpt of *Letters, Power Lines, and Other Dangerous Things: The Politics of Infrastructure Security* (Cambridge, MA: MIT Press, 2020). August 18, 2020. Available Online: <https://time.com/5880706/usps-history/>.

Ryan Ellis. “The Birth of the USPS and the Politics of Postal Reform. *MIT Press Reader*. Excerpt of *Letters, Power Lines, and Other Dangerous Things: The Politics of Infrastructure Security* (Cambridge, MA: MIT Press, 2020). August 17, 2020. Available Online: <https://thereader.mitpress.mit.edu/birth-of-usps-politics-of-postal-reform/>.

Ryan Ellis. “U.S. Postal Workers Were on the Front Lines Before. They Were Ignored.” *MIT Press Reader*. Excerpt of *Letters, Power Lines, and Other Dangerous Things: The Politics of Infrastructure Security* (Cambridge, MA: MIT Press, 2020). April 13, 2020. Available Online: <https://thereader.mitpress.mit.edu/u-s-postal-workers-were-on-the-front-lines-before-they-were-ignored/>.

Ryan Ellis, Katie Moussouris, and Yuan Stevens. "Comment on Binding Operational Directive 20-01 (Draft)." Cybersecurity and Infrastructure Security Agency (CISA), Department of Homeland Security. January 10, 2020.

Ryan Ellis. "Protecting US Critical Infrastructure: One Step Forward for Cybersecurity, One Back?" *Technology+Policy* (July, 2013).

Lewis M. Branscomb and Ryan Ellis. "Dangerous Cargo: Action Needed on Hazardous Materials." *Power & Policy* (June, 2013).

PEER-REVIEWED CONFERENCE PRESENTATIONS

Ryan Ellis and Yuan Stevens. "Bounty Everything? Hackers, Precarious Labor, and Algorithmic Accountability," RightsCon, June 2022.

Megan Finn, Janaki Srinivasan, Ryan Ellis, Amelia Acker, Bidisha Chaudhuri, Youngrim Kim, Stacey Wedlake. "Data Care During Crisis: A Comparative Analysis of COVID Data Infrastructure Builders in India and the US," Society of the Social Studies of Science (4S) Annual Meeting, Oct. 2021.

Ryan Ellis and Yuan Stevens. "A Valuable Flaw: Bug Bounty Programs, Software Maintenance, and Infrastructure Labor," Maintainers III, Washington, DC, Oct. 2019.

Ryan Ellis. "No More Free Bugs': The Invention of the Market for Software Vulnerabilities," International Communication Association (ICA) Annual Meeting, Washington, D.C. May, 2019.

Yuan Stevens and Ryan Ellis. "War or Mere Mischief? Metaphors, Fears, and Anti-Hacking Laws in the U.S. and Canada," Association of Internet Researchers (AoIR). Annual Conference, Montreal, Oct., 2018.

Ryan Ellis. "Regulating the Market for Vulnerabilities: Cybersecurity, National Security, and the Challenges of 'Lawful Hacking,'" International Communication Association (ICA) Annual Meeting, Prague, May, 2018.

Ryan Ellis "A Valuable Flaw: The Creation of a Market for Software Vulnerabilities," Society for Social Studies of Science (4S) Annual Meeting, Boston, August, 2017.

Ryan Ellis. "Security Research as Creative Labor: Digital Labor and the Commodification of Vulnerabilities," International Communication Association (ICA) Annual Meeting, San Diego, May, 2017.

Ryan Ellis. "Anatomy of a Failed Intervention: The FCC Revisits Municipal Broadband," International Communication Association (ICA) Annual Meeting, San Diego, May, 2017.

- Ryan Ellis. “No More Free Bugs’: Organizing the Market for Software Vulnerabilities,” Association of American Geographers (AAG) Annual Meeting, Boston, April, 2017.
- Ryan Ellis. “Infrastructure Inversion: Disasters, Politics, and Standards,” Society for Social Studies of Science (4S) Annual Meeting, San Diego, Oct., 2013.
- Ryan Ellis. “The Premature Death of Electronic Mail: The United States Postal Service’s E-COM Program, 1978-1985,” International Communication Association (ICA) Annual Meeting, Phoenix, May, 2012.
- Ryan Ellis. “Creating a Secure Postal Network: The Politics of Post-Anthrax Security,” Society for Social Studies of Science (4S) Annual Meeting, Cleveland, Nov., 2011.
- Ryan Ellis. “Disinfection Mail: Disease, Panic, and the Post Office in 19th Century America,” Society for the History of Technology (SHOT) Annual Meeting, Cleveland, Nov., 2011.
- Ryan Ellis. “Appropriating Risk: National Security and the Sunrise Powerlink Controversy,” National Communication Association (NCA) Annual Convention, San Francisco, Nov., 2010.
- Ryan Ellis. “Critical Infrastructure and Control Systems Security: An Interdisciplinary Curriculum,” IEEE International Conference on Technologies for Homeland Security, Boston, May, 2008.
- Ryan Ellis. “Binding the Nation Together? Postal Policy in the Era of Competition,” International Communication Association (ICA) Annual Meeting, San Francisco, May, 2007.
- Ryan Ellis. “Binding the Nation Together: A Consideration of the United States Postal Service and Democratic Organization,” Communication in Crisis, University of Massachusetts, Amherst, March, 2006.

INVITED PRESENTATIONS AND KEYNOTES

- Ryan Ellis. “Letters, Power Lines, and Other Dangerous Things: The Politics of Infrastructure Security,” John Glenn College of Public Affairs, The Ohio State University, Columbus, OH, Feb. 2022.
- Ryan Ellis, Camille François, Josh Kenway, and Yuan Stevens (Panel). “Debugging Bug Bounties: From Vulnerability Discovery to Algorithmic Harms Redress,” School of International and Public Affairs (SIPA), Columbia University, New York, NY, Feb. 2022.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, January, 2022.

- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, July, 2021.
- Katie Moussouris and Ryan Ellis. “Vulnerability Disclosure Programs: Labor Challenges and Areas for Research”, Cyber Security and Information Assurance Interagency Working Group (CSIA IWG) Meeting, Networking and Information Technology Research and Development (NITRD) Working Group, January, 2021.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, January, 2021.
- Ryan Ellis. “Disinfecting the Mail: Disease, Panic, and the Post Office Department in Nineteenth-Century America,” Symposium on 19th Century Press, the Civil War, and Free Expression, University of Tennessee at Chattanooga, November, 2020.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, July, 2020.
- Ryan Ellis. “‘No More Free Bugs’: The Invention of the Market for Software Flaws,” Workshop on Cybersecurity and International Relations, Cornell University, Ithaca, NY, June 2020 (invited—postponed due to COVID-19 travel restrictions).
- Ryan Ellis. “Letters, Power Lines, and Other Dangerous Things,” Research Presentation, National Grid, Waltham, MA, March, 2020.
- Ryan Ellis and Yuan Stevens. “The Cultural Logics of Bug Bounty Programs,” Department of Art History and Communication, McGill University, Montreal, Jan., 2020.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, Jan., 2020.
- Ryan Ellis and Yuan Stevens. “The Cultural Logics of Bug Bounty Programs,” Data & Society Research Institute, New York, NY, Dec., 2019.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, July, 2019.

- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, Jan., 2019.
- Ryan Ellis. “Cybersecurity and Electric Power: Institutional Diversity, Control Points, and the Myth of Technological Determinism,” Harvard Electricity Policy Group (HEPG), 93rd Plenary Session, Manalapan, FL, Dec., 2018.
- Ryan Ellis and Yuan Stevens. “Framing Computer Hacking: The Birth of Anti-Hacking Laws in the U.S. and Canada,” HKS Digital, Harvard Kennedy School, Cambridge, MA, Nov., 2018.
- Ryan Ellis and Yuan Stevens. “‘No More Free Bugs’: The History, Organization, and Implications of the Market for Software Vulnerabilities,” Data & Society Research Institute, New York, NY, June 2018.
- Ryan Ellis. “The Vulnerability Economy,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, Jan., 2018.
- Ryan Ellis. “‘No More Free Bugs’: The History, Organization, and Implications of the Market for Software Vulnerabilities,” Bits, Bots, and Bytes, McGill University, Montreal, Dec., 2017.
- Ryan Ellis. “Emerging Policy Tools in Cybersecurity” (Panel), The Wilson Center, Washington, D.C., Oct., 2016.
- Ryan Ellis. “Managing the Vulnerability Economy” (Panel), Cyber Lunch Series, Belfer Center for Science and International Affairs, Harvard Kennedy School, Cambridge, MA, Oct., 2016.
- Ryan Ellis. “The Vulnerability Economy: Zero-Days, Commerce, and National Security,” Harvard Kennedy School Executive Education Program, Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, Aug., 2016.
- Ryan Ellis. “Emerging Media: A Look Back—And a Look Ahead” (Keynote), Screentime: Technological Affordances and Constraints in Mediated Life, Boston University, Boston, MA, June, 2016.
- Ryan Ellis. “A Question of Disclosure: Zero-Days, Commerce, and National Security,” Harvard Kennedy School, Cambridge, MA, Dec., 2015.
- Ryan Ellis. “Living with Uncertainty: Zero-Days and the Problem of Persistent Insecurity,” Northeast Gas Association (NGA) Executive Conference, Harwich, MA, Sept., 2015.
- Ryan Ellis. “The Vulnerability Economy: Zero-Days, Commerce, and National Security,” Harvard Kennedy School Executive Education Program,

Cybersecurity—the Intersection of Policy and Technology, Cambridge, MA, July, 2015.

Ryan Ellis. “The Vulnerability Economy: Zero-Days, Commerce, and National Security,” National Institute of Standards and Technology (NIST) Center of Excellence, Rockville, MD, March, 2015.

Ryan Ellis. “Cyber Terrorism: Weighing the Costs of Surveillance and Security,” Boston Global Forum, Cambridge, MA, Oct., 2014.

Ryan Ellis. “The NIST Framework: A Preliminary Review,” Cyber Norms Workshop 3.0, Massachusetts Institute of Technology, Cambridge, MA, April, 2014.

Ryan Ellis. “Securing Infrastructure: Cybersecurity, Public Policy, and the Challenges Ahead,” Journalists Forum on the Land and Built Environment (Lincoln Institute of Land Policy); Nieman Foundation for Journalism at Harvard University; Harvard University Graduate School of Design), Cambridge, MA, March, 2014.

Ryan Ellis. “Cybersecurity: Prospects for International Collaboration,” 21st Annual U.S.– Japan Symposium: Growth, Trade, and Security for Japan and the U.S. in a Rapidly Changing World, Harvard University, Cambridge, MA, Nov., 2013.

Ryan Ellis. “Cybersecurity and Critical Infrastructure Protection: An Overview of U.S. Efforts,” Briefing for the National Coordinator for Security and Counterterrorism (Netherlands), Harvard Kennedy School, Cambridge, MA, July, 2013.

Ryan Ellis. “The Best Defense is a Weak Offense? Tensions within U.S. Cyber Policy,” The Future of Communication: Questions of Power, Publics, and the New Media Environment, University of California, San Diego, CA, June, 2013.

Ryan Ellis. “Developing Offensive Cyber Tools, Techniques, and Procedures for Defending Corporate and Government Networks,” (Panel) Suits and Spooks: Exploring Cyber Warfighting and Threat Mitigation for Corporations and Governments, La Jolla, CA June, 2013. With George Kurtz (CrowdStrike) and Greg Hogg (Veraxes).

Ryan Ellis. “Vulnerability Disclosure and ‘Cyberwar’: The Cost of Offensive Cyber Weapons,” Suits and Spooks: Exploring Cyber Warfighting and Threat Mitigation for Corporations and Governments, La Jolla, CA, June, 2013.

Vivek Mohan and Ryan Ellis. “Cyber Insurance Markets: Realities and Opportunities,” Briefing for the European Commission Directorate General

for Communications Networks, Content and Technology, Berkman Center for Internet and Society, Harvard University, Cambridge, MA, May, 2013.

Ryan Ellis. "Cybersecurity and Critical Infrastructure Protection: Observations and Commentary on Recent Developments," Briefing for the National Association of Regulatory Utility Commissioners, March, 2013.

Ryan Ellis. "Revisiting the 2001 Anthrax Attacks: Uncertainty, Complexity, and Politics," Naval Postgraduate School, Monterey, CA July, 2012.

Ryan Ellis. "Regulation and Risk: The Past, Present, and Uncertain Future of Critical Infrastructure Protection," Naval Postgraduate School, Monterey, CA, April, 2012.

Ryan Ellis. "The Politics of Critical Infrastructure Protection: Regulation and Deregulation Revisited," Center for International Security and Cooperation, Stanford University, Palo Alto, Feb., 2012.

Ryan Ellis. "Delivering the Mail: Labor, Terrorism, and Post-Anthrax Security," Labor and Employment Research Fund/Institute for Research on Labor and Employment Southern California Graduate Student Conference, University of California, Irvine, June, 2009.

MEDIA (SELECT)

Thomas Claburn. "Homeland Security Demands a 911 for Reporting Security Holes in Federal Networks." *The Register*. September 3, 2020. Available Online: https://www.theregister.com/2020/09/03/us_bug_bounty/. Featured research: Ryan Ellis, Katie Moussouris, and Yuan Stevens. "Comment on Binding Operational Directive 20-01 (Draft)." Cybersecurity and Infrastructure Security Agency (CISA), Department of Homeland Security. January 10, 2020.

Planet Money (National Public Radio). "Crisis at the Post Office." Air date: August 21, 2020. Featured research: Ryan Ellis. *Letters, Power Lines, and Other Dangerous Things* (Cambridge, MA: MIT Press, 2020).

COVID Calls. "Information Infrastructures in Disasters." Interview and Discussion. Podcast. Available Online: <https://www.podbean.com/eu/pb-n4nye-de51d3>. Air Date: May 18, 2020.

Joe Halpern. "Delivery Workers Step up During the COVID-19 Pandemic." *News@Northeastern*. April 9, 2020. Interview with Ryan Ellis.

Molly Callahan. "You're Going to Get a Notification From President Trump on Wednesday. Here's Why." *News@Northeastern*. October 2, 2018. Interview with Ryan Ellis.

Defense and Intelligence Projects Podcast. "Cybersecurity." Science, Technology, and Public Policy Program, Belfer Center for Science and International Affairs, Harvard Kennedy School, March, 2013. Interview with Ryan Ellis.

Ryan Ellis. "A Letter Home: The Relevance of the Postal Service in the Information Age," TEDx, San Diego, Dec., 2012.

TEACHING AND ADVISING

Courses Developed and Taught (Select)

Northeastern University (Assistant Professor)

2019-Present *Communication and Privacy*
Undergraduate, 19 students per section: F19, S19* (*New preparation)

2016-Present *Free Speech: Law and Practice*
Undergraduate, 19 students per section: S21, F20, S20, S19, F18, S18, F17, S17, S16

2015-Present *Free Speech in Cyberspace*
Undergraduate, 19 students per section: S21, F20, S20, F18, S18, F17, S17, S16, F15* (*New course preparation)

Harvard Kennedy School (Instructor/Teaching Fellow)

2014-Present *Cybersecurity: The Intersection of Technology and Policy*
Executive Education

2012-2015 *Technology, Security, and Conflict in the Cyber Age*
Graduate Course

Naval Postgraduate School (Instructor)

2012-2015 *Critical Infrastructure: Vulnerability Analysis and Protection*
Graduate Course

Harvard University (Teaching Fellow)

2014 *Introduction to Technology and Society*
Undergraduate Course

University of California, San Diego (Lecturer)

2009-2010 *Law, Communication, and Freedom of Expression: Part I*
Undergraduate Course

2009-2010 *Law, Communication, and Freedom of Expression: Part II*
Undergraduate Course

2008 *Introduction to Communication as a Social Force*
Undergraduate Course

Advising and Supervision

Northeastern University

Advisor, Undergraduate Directed Research

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| 2020 | Soraya Alli |
| 2017 | Jordan Hollingshead |

Advisor, Undergraduate Research Assistant

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| 2020-2021 | Wyatt Hornstein |
| 2021 | Hava Kantrowitz |
| 2021 | Emily Gao |
| 2020-2021 | Ava Sasani |
| 2018-2020 | Soraya Alli |
| 2020 | Madeline O'Hara |

Naval Postgraduate School

Advisor, Master's Thesis

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|------|-------------------------|
| 2015 | Randall DeGering |
| 2015 | Paul Arnett |
| 2015 | Thomas Dobson |
| 2013 | Chris Chistopoulos, Jr. |

ACADEMIC AND PROFESSIONAL SERVICE

Service to the Profession

Professional Memberships (Current and Past)

International Communication Association (ICA)
Society for Social Studies of Science (4S)
Society for the History of Technology (SHOT)
National Communication Association (NCA)

Manuscript Reviewing

Polity Books, Digital Media and Society Series
Yale University Press

Journal Reviewing

International Security (MIT Press)
Science and Public Policy (Oxford University Press)
Science, Technology, and Human Values (Sage)
Journal of Urban Affairs (Routledge)

Conference Reviewing

International Communication Association (ICA), Law and Policy Division
International Communication Association (ICA), Communication History
Division

Intellectual Leadership and Agenda Setting

| | |
|-----------|--|
| 2017 | Faculty Mentor, Society for Social Studies of Science (4S) |
| 2013-2016 | Coordinator and Organizer, Nye Cyber Seminar (Discussion |

Series with Prof. Joe Nye), John F. Kennedy School of Government, Harvard University.

2013-2015 Co-Founder and Moderator, Issues in Science, Technology, and Public Policy (Fellows' Discussion Series), Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University.

2006-2007 Senior Teaching Assistant (Training and Coordination), Department of Communication, University of California, San Diego.

Service to the University

2020 Panelist, Global Resilience Institute, Humphrey Fellowship Reception
2019 Faculty Commencement Marshal
2017 Speaker, Global Resilience Institute, Flash Talks

Service to the College

2018-2020 CAMD Academic Affairs Committee
2019 Panelist, CAMD Dean's Research Fellows Panel
2017 Speaker, CAMD Faculty Colloquium

Service to the Department

2019-2020 Communication Studies Tenure Track Search Committee
2018-2020 Communication Studies Curriculum Committee
2019 Communication Studies Non-Tenure Track Faculty Promotion Committee
2017-2019 Communication Studies Merit Review Committee
2017-2018 Communication Studies Tenure Track Search Committee (Sr. level)
2017-2018 Communication Studies Tenure Track Search Committee (Jr. level)
2016 Communication Studies Non-Tenure Track Faculty Promotion Committee
2015-2018 Dinner with Faculty, Departmental Representative