

Robert Ward

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Education

- Ph.D. Public Policy, *Georgia Institute of Technology*, 2019–present
 Advised by Cassidy R. Sugimoto and John P. Walsh
- M.S. Computer Science, *Georgia Institute of Technology*, 2021–present
- M.P.A. John Glenn College of Public Affairs, *The Ohio State University*, 2019
- B.S. Molecular Genetics, *The Ohio State University*, 2017

Positions

- 2022– *Georgia Institute of Technology*
 Graduate Research Assistant
 John P. Walsh, School of Public Policy
- 2022 *Georgia Institute of Technology*
 Graduate Research Assistant
 Cassidy R. Sugimoto, School of Public Policy
- 2019– *CRI Paris/LPI (INSERM-Université Paris Cité)*
 Visiting Student Researcher
 Marc Santolini, Interaction Data Lab
- 2019–22 *Georgia Institute of Technology*
 Graduate Research Assistant
 Jan Youtie and Philip Shapira, Science, Technology and Innovation Policy
- 2018–19 *The Ohio State University*
 Graduate Research Associate
 Battelle Center for Science, Engineering, and Public Policy
- 2014–16 *The Ohio State University*
 Undergraduate Research Assistant
 Jay B. Hollick, Department of Molecular Genetics

Research Areas

Computational Social Science | Organizations | Networks | Science, Technology and Innovation Policy

Publications

In Print

- 2022 Chakresh Singh, Emma Barme, Robert Ward, Liubova Tupikina and Marc Santolini. "Quantifying the rise and fall of scientific fields", *PLOS ONE*. 10.1371/journal.pone.0270131
- 2021 Jan Youtie, Robert Ward, Philip Shapira, R. Sandra Schillo & E. Louise Earl. "Exploring new approaches to understanding innovation ecosystems", *Technology Analysis & Strategic Management*. 10.1080/09537325.2021.1972965
- 2021 Jan Youtie, Robert Ward, Philip Shapira, Alan Porter, Nils Newman. "Corporate engagement with nanotechnology through research publications", *Journal of Nanoparticle Research*. 10.1007/s11051-021-05195-4
- 2021 Zhang, Yi, Mengjia Wu, Zhengyin Hu, Robert Ward, Xue Zhang, Alan Porter "Profiling and predicting the problem-solving patterns in China's research systems: A methodology of intelligent bibliometrics and empirical insights", *Quantitative Science Studies*. 10.1162/qss_a_00100

In Progress

1. "Disciplinary Integration and Scholarly Reception"
2. "Geography and Knowledge Integration in Teams"
with Christopher Esposito and Fengli Xu
3. "iGEM: A Model System for the Science of Science and Innovation"
with Marc Santolini, Megan J. Palmer, Leo Blondel, Rathin Jerayam, Abhijeet Krishna and Albert-Laszlo Barabasi.
4. "Peer Effects on Team Innovation"
with Marc Santolini, Rathin Jeyaram, Megan J. Palmer and Albert-Laszlo Barabasi.
5. "The Endogeneous Division of Labor"
with Marc Santolini
6. "Science in Motion"
with Alec McGail and Aaron Mendon-Plasek
7. "Novel Science, Stratification and the Burden of Evidence"
with Seokkyun Woo and Cassidy R. Sugimoto

Conference Activity

Presentations

Presenting author *italicized*, if other.

- 2022 Robert Ward "Disciplinary Integration and Evaluation". 1st International Conference on the Science of Science and Innovation (ICSSI). Washington DC. Jun 6-9.

- 2022 Robert Ward, Jan Youtie, Philip Shapira. “Networks, Knowledge and Search Speed: Evidence from Covid-19 Drug Development”. Association for Public Policy and Management (APPAM) Fall Research Conference. Mar 27-29. *Virtual*
- 2022 Chakresh Kumar Singh, Emma Barme, Robert Ward, Liubov Tupikina and Marc Santolini. “Quantifying the exploration vs exploitation of scientific fields using the arXiv field-tags co-occurrence network”. NetSci-X 2022. Porto, Portugal. Feb 8-11.
- 2021 Robert Ward, Gaurav Verma, Seokkyun Woo. “The Paradox of Integration: Interdisciplinary Research and Disciplinary Evaluation” 6th Summer School on Data and Algorithms for Science, Technology & Innovation Studies. Aristotle University of Thessaloniki-KU Leuven, Sep 22-24, *Virtual*.
- 2020 Robert Ward, Jan Youtie, Philip Shapira. “The Search for Clinical Solutions.” 10th Global TechMining Conference. Nov 11–13 *Virtual*.

Sessions Organized

- 2022 Workshop on the Organization of Science. Oct 24th. Learning Planet Institute, Paris, France.
- 2021 "NetOpen21: Modeling open innovation communities with network science." Satellite at Networks 2021: A Joint Sunbelt and NetSci Conference. Co-organizer with Marc Santolini (CRI Paris), Liubov Tupikina (Bell Labs) and Juniper Lovato (Vermont Complex Systems Center). Jun 30th *Virtual*. interactiondatalab.com/netopen21

Invited Talks

- 2022 “Disciplinary Integration and Scholarly Reception”
Workshop on Original Policy Research (WOPR), Georgia Institute of Technology, April 1.
- 2021 “Networks, Knowledge and Search Speed: Evidence from Covid-19 Drug Development”
Workshop on Original Policy Research (WOPR), Georgia Institute of Technology, April 9
Virtual

Workshops and Summer Schools

- 2022 Atlanta Academy on Science and Innovation Policy, School of Public Policy, Georgia Institute of Technology. March 21-25, 2022, Atlanta, GA.
- 2021 Society of Young Network Scientists (SYNS) Networks 2021 Pre-Conference Workshop. Jun 26 *Virtual*.
- 2021 Science of Science Summer School, iSchool, Syracuse University. Jul 26-Aug 8 *Virtual*.

Grants and Awards

- \$6,000 iGEM Team Interaction Study | Google and University of Vermont: Open Source Complex Ecosystems and Networks (OCEAN) Program | 2022

- €6,000 "Quantitative assessment of open collaborations in science and engineering" | Subaward from French National Research Agency (ANR): AAPG2021 | PI: Marc Santolini | 2022-24
- \$2,000 S4 Fellowship | Joint with Alec McGail and Aaron Mendon-Plasek | Subaward from from NSF #1933675 for the project "Science in Motion" | 2021-22
- €1,000 Travel Grant to attend "Summer School on Data and Algorithms for Science, Technology & Innovation Studies" | Google / KU Leuven | 2021 — Declined due to COVID-19
- \$22,000 President's Fellowship | Georgia Institute of Technology | 2019-23

Teaching

Georgia Institute of Technology

2022 Instructor for Computing Bootcamp, School of Public Policy

The Ohio State University

2019 Instructor for iGEM (International Genetically Engineered Machines Competition) Team

Journal Peer Review

- 2019– Research Policy
- 2019 IEEE TEM

Other Service

- 2020 Contributor to *OpenCovid19*, Just One Giant Lab (JOGL)
- 2019 Member of Judging Committee, International Genetically Engineered Machine Competition (iGEM)

Consulting Projects

Georgia Tech STIP

- 2022 *Mass Customizable and On-demand Integrated Circuits*. PIs: Michael Filler and Eric Vogel. | *Social Network Analysis* for Southeastern Nanotechnology Infrastructure Corridor (SENIC)
- 2021 *Mass Customizable and On-demand Integrated Circuits*. PIs: Michael Filler and Eric Vogel. | *Technology Forecasting* for Army Research Lab
- 2020 *Technology Forecasting* for Army Research Lab | *Corporate Entry into Nanotechnology* for NSF Subcommittee on Nanoscale Science, Engineering and Technology (NSET) | *Social Network Analysis* for Southeastern Nanotechnology Infrastructure Corridor (SENIC)
- 2019 *Scientific Impacts of the Georgia Sea Grant* delivered to UGA Marine Extension and Georgia Sea Grant | *Social Network Analysis* for Georgia Tech Center for Space Technology and Research (CSTEP)

Battelle Center for Science, Engineering and Public Policy

2019 *Improving the Cybersecurity and Cost Effectiveness of USAF Industrial Control Systems for the Air Force Installation Contracting Agency (AFICA/KA) | DRC Ebola Response Platform.*

Professional Affiliations

American Association for the Advancement of Science (AAAS)

Association for Public Policy Analysis and Management (APPAM)

Society of Young Network Scientists (SYNS)

September 2022