

Edward L. Platt, Ph.D.
Curriculum Vitae

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Education

PhD, Information Science
University of Michigan, School of Information, 2015--2022
Dissertation: "Network Deliberation: The role of network structure in large-scale, internet-enabled, participatory decision-making."
Advisor: D.M. Romero

M.Math., Applied Mathematics
University of Waterloo, 2007--2009.
Thesis: "WKB Analysis of Tunnel Coupling in a Simple Model of a Double Quantum Dot."
Advisors: J. Paldus, F. Wilhelm-Mauch

S.B., Computer Science
S.B., Physics
Massachusetts Institute of Technology, 2002--2006.
Thesis: "Effects of Control Error on an Adiabatic Quantum Algorithm."
Advisor: E. Farhi.

Honors

- Data Science for Social Good Fellowship, 2018 (declined).
- Best Software, APSA - ITP, 2014 (PageOneX, collaboration).
- Hack of Honor, Penguicon 2010 (i3 Detroit, collaboration).
- Design Award, MIT 6.170 Software Engineering, 2005 (collaboration).
- Ronald H. Cordover Scholar in the Arts, 2003--2006.

Peer-Reviewed Publications

- EL Platt, DM Romero. "Towards Attack-Tolerant Networks: Concurrent Multipath Routing and the Butterfly Network." *PloS one*. 2019.
- EL Platt, DM Romero. "Network Structure, Efficiency, and Performance in WikiProjects." *Twelfth International AAAI Conference on Web and Social Media*. 2018
- EL Platt, R Bhargava, E Zuckerman. "The International Affiliation Network of YouTube Trends." *Ninth International AAAI Conference on Web and Social Media*. 2015.

Books

- EL Platt. *Network Science with Python and NetworkX Quick Start Guide*. 2019. Packt.

Conference Talks

- EL Platt, DM Romero. "Small interlocking groups improve mass deliberation in the presence of strong social influence." International Conference on Computational Social Science. 2022.
- EL Platt, H Bodon, DM Romero. "Effective Deliberation in Large Groups: An Agent-Based Model." International Conference on Computational Social Science. 2020.
- EL Platt, DM Romero. "Local Majority: A Limited-Concern Strategy for Networked Social Learning." *NetSci*. 2019.
- EL Platt, DM Romero. "Network Structure, Efficiency, and Performance in WikiProjects." *Michigan Institute for Data Science Annual Symposium*. 2018
- EL Platt, DM Romero. "Network Structure, Efficiency, and Performance in WikiProjects." *International Conference on Computational Social Science*. 2018
- EL Platt, DM Romero. "Towards Attack-Tolerant Networks: Multipath Fault Tolerance" *NetSci*. 2017.
- EL Platt, DM Romero. "Synthetic Webs of Trust for Egalitarian Communities." *Second International Conference on Computational Social Science*. 2016

Workshop Papers

- EL Platt, H Bodon, DM Romero. "Harnessing Diversity in Large Groups: An Agent-Based Model." *CSCW Workshop on Team and Group Diversity*. 2019.

Posters

- EL Platt, DM Romero. "Network Structure, Efficiency, and Performance in WikiProjects." *NetSci*. 2019.
- EL Platt, DM Romero. "Scalable Egalitarian Networks and the Nested Clique." *NetSci*. 2017.
- EL Platt, DM Romero. "Attack-tolerant network architectures." *Michigan Institute for Data Science Annual Symposium*. 2016.
- EL Platt, DM Romero. "Attack-tolerant network architectures." *IPAM Cultural Analytics Workshop III: Cultural Patterns: Multiscale Data-driven Models*. 2016.

Research

Research Assistant, D.M. Romero, University of Michigan School of Information, 2015--2022. Analyzed large-scale decision-making in online communities. Used simulation and empirical analysis to determine influence of network structure. Communities studied include Wikipedia, undergraduate classmates, and ad-hoc laboratory groups.

Staff, MIT Center for Civic Media, 2012--2015.

Provided software engineering support to graduate students on numerous projects. Used network analysis and multiple regression to determine factors contributing to media attention across national borders.

Master's Thesis, Waterloo, 2007--2009.

Modeled double quantum dots and used numerical simulations to determine the effects of bias on tunneling. Advisors: J. Paldus, F. Wilhelm-Mauch.

Undergraduate Thesis, MIT, 2005--2006.

Modeled and characterized effects of control error on an adiabatic quantum algorithm. Advisor: E. Farhi.

Undergraduate Researcher, MIT/CERN Compact Muon Solenoid, 2005.

Took over and completed implementation of CMSRoot, a high-energy physics simulation framework. Simulated heavy ion collisions in the LHC. Advisor: B. Wyslouch.

Undergraduate Researcher, MIT Media Lab: Quanta, 2004.

Implemented matrix factorizations and simulated fault-tolerant quantum computations. Advisor: I. Chuang.

Undergraduate Researcher, MIT Media Lab: Tangible Media, 2003.

Contributed to development of CircuitUI, a tangible user interface for circuit design. Created teaching materials for MIT 8.02T Electricity and Magnetism. Advisor: H. Ishii.

Undergraduate Researcher, MIT Cognition Lab, 2002--2003.

Implemented visual imagery experiments and administered to human subjects. Advisor: L. Boroditsky.

Course Design

UMich Complex Systems 251 / Sociology 251, with E. Bruch, D.M. Romero, and J. Lockhart. Developed an introductory computational social science course. Contributed to syllabus and interactive labs covering important studies on online communities, online experiments, network analysis, natural language processing.

Teaching

- Winter 2022, U. Michigan. GSI for SI 664, Database Application Design.
- Fall 2021, U. Michigan. GSI for SI 364, Database Application Design.
- Winter 2020, U. Michigan. GSI for SI 664, Database Application Design.
- Fall 2019, U. Michigan. GSI for SI 664, Database Application Design.
- Summer 2008, Waterloo. TA for AMATH 250, Introduction to Differential Equations.
- Spring 2008, Waterloo. TA for AMATH 250, Introduction to Differential Equations.
- Fall 2007, Waterloo. TA for MATH 125, Applied Linear Algebra I.
- Fall 2007, Waterloo. TA for MATH 127, Calculus I for the Sciences.
- Fall 2004, MIT. Lab asst. for MIT 1.00, Computers and Engineering Problem Solving.
- Spring 2003, MIT. Lab asst. for MIT 1.00, Computers and Engineering Problem Solving.

Invited Lectures

- February 2022, UMich SI 840 Research Methods. "Network Deliberation."
- March 2014, MIT MAS.571 Social TV. "What We Watch."
- February 2014, MIT CMS.400 Media Systems and Texts. "Content Analysis."

Other Talks

- April 2019. Penguicon. "Network Science with NetworkX."
- March 2019. LibrePlanet. "Free Software for Large-Scale Collaboration."
- March 2019. U. Mich. Center for the Study of Complex Systems. "Large Scale Collaboration and Deliberation on Networks."
- November 2017. U. Mich. School of Info., "Simulating Wikipedia: Modeling peer production as networked social learning."
- May 2017. Harvard Berkman-Klein Center, Cooperation Working Group. "Performance and Efficiency in WikiProjects."
- April 2017. Penguicon. "The Future of Net Neutrality."
- April 2017. Penguicon. "Re-Decentralizing the Web."
- July 2016. HOPE. "Censorship- and Coercion-Resistant Network Architectures."
- April 2016. Penguicon. "How Will Technology Change Society?"
- April 2016. Penguicon. "Free and Open Source Democracy."
- February 2016. U. Mich. School of Info., "Synthetic Webs of Trust for Egalitarian Communities."
- April 2015. Penguicon, "Social Network Analysis with NetworkX and Gephi."
- April 2015. Penguicon, "Leading FLOSS Projects."
- April 2014. Penguicon. "Civic Technology."
- February 2014, Harvard Berkman Center, Cooperation Working Group. "What We Watch."
- June 2013, Allied Media Conference. "Vojo."
- April 2013, Penguicon. "VoIP, SMS, and MMS."
- April 2013, Penguicon. "Seltzer CRM."
- April 2012, Penguicon. "Drupal CCK: Easily manage complex data without any programming."
- April 2010, Penguicon. "Hackerspaces."
- February 2010, Ignite Detroit. "Something About Dopamine."

Program Committees and other Peer-Reviewing

- International Conference on Social Informatics, 2022.
- Invited Peer-Reviewer, AI & Society, 2022.
- 16th International AAAI Conference on Web and Social Media.
- Invited Peer-Reviewer, CSCW 2021.
- International Conference on Social Informatics, 2020.
- Invited Peer-Reviewer, PLOS ONE, 2020.
- 14th International AAAI Conference on Web and Social Media.
- Invited Peer-Reviewer, CHI 2018.
- 12th International AAAI Conference on Web and Social Media.

- 11th International AAAI Conference on Web and Social Media.
- 10th International AAAI Conference on Web and Social Media.

Other Reviewing

- Technical Reviewer, “Mastering Quantum Computing with IBM QX,” Packt publishing.

Professional Service

- GEO 3550 Bargaining Committee, Co-Chair, 2019–2020
- GEO 3550 Platform Development Committee, 2018–2019

Other Service

- MIT Admissions, Engineering Advisory Board, 2014--present
- Ypsi Arbor SOUP, Board Member, 2017--2018
- i3 Detroit: Co-Founder, Treasurer, and Board Member, 2009--2014
- MIT Admissions, Educational Counselor, 2011--2012
- List Visual Arts Center: Board Member, 2004--2006

Work Experience

Freelance Web Developer, Progress Now Colorado, 2017.

Created interactive tools to increase awareness for Amendment 73 campaign.

Freelance Web Developer, Chatango, 2011--2012.

Created embeddable JavaScript group chat. Responsible for cross-browser/mobile compatibility.

Freelance Web Developer, Doner Advertising, 2010--2011.

Implemented websites/CMS for clients including Quaker State, Dupont Teflon, and Pictsweet.

Freelance Web Developer, 2009--2010.

Developed websites for clients including Modernistic Carpet, Shrader Labs, H.A. King.

Software Engineer, Zimride (Lyft), 2008--2009.

Collaborated with company founders to implement social feedback and rating system.

Software Engineer, Apple Computer, Color Imaging Group, 2006.

Applied machine learning and image processing to content-based image retrieval.