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SUMMARY

I am a computer scientist with expertise in large online networks and extensive real-world experience building big data machine learning augmented systems. My current research involves large-scale analysis of online paid political content on major platforms such as Facebook, Google, and Twitter, and the development of methods to detect inauthentic content and fraudulent actors. I co-lead the Cybersecurity for Democracy project at New York University where I am also a Postdoctoral Researcher.

EDUCATION

- Ph.D. Computer Science, New York University, 2022
  Dissertation: Characteristics of Misinformation and Political Content in Online Information Spaces
  Advisor: Damon McCoy
- B.S. Computer Science, Pace University, 2008

REFEREED CONFERENCE PUBLICATIONS

An Audit of Facebook's Political Ad Policy Enforcement, 2022. USENIX Security. Victor LePochat, Laura Edelson, Tom Van Goethem, Wouter Joosen, Damon McCoy, and Tobias Lauinger

Understanding Engagement with US (Mis) information News Sources on Facebook, 2021. Proceedings of the 21st ACM Internet Measurement Conference (IMC). Laura Edelson, Minh-Kha Nguyen, Ian Goldstein, Oana Goga, Damon McCoy, Tobias Lauinger.

A Security Analysis of the Facebook Advertising Library, 2020. IEEE Symposium on Security and Privacy (S&P), Laura Edelson, Tobias Lauinger and Damon McCoy.

GRANTS

Through over $3M in grants awarded to Damon McCoy which I contributed to writing, my work has been supported by the NSF, Reset.tech, Democracy Fund, Emerson Collective, NetGain, and Wellspring.

- NSF Collaborative Research: SaTC: CORE: Medium: Methods and Tools for Effective, Auditable, and Interpretable Online Ad Transparency ($1.2M with $383,395 NYU share)
- Belfer Fellowship ($50,000), Anti-Defamation League, 2022
- Online Political Advertising Transparency Project ($800,000) Democracy Fund, 2019-2022
- Cybersecurity for Democracy ($1,400,000) Wellspring Philanthropic Fund, 2019-2022
- Cybersecurity for Democracy ($100,000 NYU) Emerson Collective, Gift Funds 2021
- Cybersecurity for Democracy ($100,000 NYU) NetGain, Gift Funds, 2021
- Political Transparency in German Elections ($37,500 NYU), Reset.tech, 2021
- Digital Ecosystem Research Challenge ($37,822 NYU) Government of Canada, 2019-2020 ● Online Political Advertising Transparency Project ($175,000 NYU) Luminate, 2019

GOVERNMENTAL TESTIMONY

U.K. Parliament. "Joint Committee on the Online Safety Bill". October 14th, 2021

U.S. House of Representatives Science Committee. "The Disinformation Black Box: Researching Social Media Data". Sept. 28th, 2021

Washington State Public Disclosure Commission. "Big Data, Big Dollars: Shining a Light Digital Political Advertising". Jan. 16th, 2020

OTHER WRITINGS

It's Time to Open the Black Box of Social Media, Apr. 2022. Scientific American. With Reneé DiResta, Brendan Nyhan, and Ethan Zuckerman.

Platform Transparency Legislation: The Whos, Whats and Hows, Apr. 2022. Lawfare.

How Facebook Hinders Misinformation Research, Sept. 2021. Scientific American. With Damon McCoy.

We Research Misinformation on Facebook. It Just Disabled Our Accounts, Aug. 2021. New York Times. With Damon McCoy.

NON-REFEREED JOURNAL AND OCCASIONAL PAPERS

Chapter 2: Data Collection & Statistics, from Memes, Magnets and Microchips: Narrative dynamics around COVID-19 vaccines, Feb. 2022.

A Standard for Universal Digital Ad Transparency, Dec. 2021. Knight First Amendment Institute Occasional Papers Series. Laura Edelson, Jason Chuang, Erika Franklin-Fowler, Michael Franz, and Travis Ridout. [6 Citations]

Political Advertisement and Personal Data, Jan. 2020. *In* Understanding the Digital Ecosystem: Findings from the 2019 Federal Election. Laura Edelson, Divam Jain and Damon McCoy

An Analysis on United States Online Political Advertising Transparency, 2019, Laura Edelson, Shihkar Sakuja, Ratan Dey, and Damon McCoy. [56 Citations]

PROJECTS

Ad Observatory, 2020 - Present, Website to increase practical transparency of Facebook political advertising.

Ad Observer, 2020 - Present, Browser extension to crowdsource observations of Facebook and YouTube political ads.

SELECTED PRESENTATIONS & TALKS

Workshop on Technology & Consumer Protection (ConPro 2022) Keynote

Data: Sharing While Protecting?, 2022

Pursuing Platform Transparency in 2022, 2022

Online Political Ad Transparency, 2021

A Security Analysis of Facebook's Political Ad Library, 2019

AWARDS & FELLOWSHIPS

Pearl Brownstein Doctoral Research Award, New York University Tandon School of Engineering, 2022

Belfer Fellowship, Anti-Defamation League, 2022

Deborah Rosenthal, MD Award for Best Qualifying Exam, New York University Tandon School of Engineering, 2019

SERVICE

USENIX Security, Program Committee 2023
Workshop on Technology & Consumer Protection (ConPro 2023), Co-Chair 2023
USENIX Security, Differential Privacy Session Chair, 2022
Workshop on Technology & Consumer Protection (ConPro 2022), Program Committee 2022
Workshop on Technology & Consumer Protection (ConPro 2021), Program Committee 2021
IEEE International Symposium on Technology and Society, Program Committee 2021

Editorial Board, Journal of Online Trust and Safety, 2021 - Present

 I have volunteered with the IEEE extensively and have served in many roles. Some of my roles have included:
- Chair, Humanitarian Activities Committee, 2016-2017 - Managed a team of staff and volunteers to execute IEEE's humanitarian goals. Oversaw a 2 million dollars annual budget.
- President, Society on Social Implications of Technology, 2013-2014 - Led a team of volunteers managing the affairs of the society, including conferences, publications, partnership arrangements with other non-profits, and membership development.

EMPLOYMENT

Chief Scientist, Sigma Ratings   6/17 – 5/18
- Developed proprietary machine learning algorithm to detect financial crime risk to banking institutions Built and led technology team, including remote data collection teams to deliver Sigma's commercial offerings, including a low-cost screening platform as well as customized financial crime rating product

Software Engineer, Palantir Technologies   8/13 – 7/15
- Worked with the Data Science team to implement original bucketing algorithms for Machine Learning offering
- Integrated open source machine learning library mllib into Palantir's broader Data Warehousing offerings allowing it to be used on massive scale data sets.
- Developed a new API for Palantir's deployment toolset that was adopted company-wide.

Senior Software Engineer, FactSet Research Systems, Inc.   9/08 – 7/13
- Technical Lead for Quote Alerts, a real-time notification server of market threshold events. Developed proprietary algorithms for high-speed function evaluation.
- Developed a novel algorithm to project future dividend amounts and calculate the Fair Value of futures contracts for stock indexes, allowing FactSet to be the first to market with a streaming Fair Value product.
- Developed custom data compression scheme for transmission of market data, maintaining a high degree of compression (>80%) while being flexible enough to not require pre-defined message formats.