### Nicholas Vincent

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• www.nickmvincent.com

#### Research Interests

Responsible Artificial Intelligence, Human-computer Interaction, Human-centered Machine Learning, Social Computing

#### Academic Appointments

#### Assistant Professor

Simon Fraser University, School of Computing Science

Burnaby, BC, Canada July 2023 - present

#### Postdoctoral Scholar

University of California, Davis

Davis, CA, USA Jan 2023 - July 2023

o Co-advised by Seth Frey 

(UC Davis, Department of Communication) and Amy X. Zhang 

(University of Washington, School of Computer Science and Engineering)

#### Education

#### Northwestern University

Sept 2017 - Dec 2022

PhD in Technology and Social Behavior (joint degree, Computer Science and Communication)

- Advisor: Brent Hecht
- Dissertation Data Leverage: A Framework for Empowering the Public to Mitigate Harms of Artificial Intelligence. Received SIGCHI 2024 Outstanding Dissertation Award and Northwestern University Department of Communication Dissertation Award

#### University of California, Los Angeles

Sept 2012 - June 2016

BS in Electrical Engineering

o Magna Cum Laude

#### **Archival Publications**

### Pika: Empowering Non-Programmers to Author Executable Governance Policies in Online Communities

2024

Leijie Wang, Nicholas Vincent, Julija Rukanskaitė, Amy X. Zhang

ACM CHI 2024

# A Canary in the AI Coal Mine: American Jews May Be Disproportionately Harmed by Intellectual Property Dispossession in Large Language Model Training

2024

Heila Precel, Allison McDonald, Brent Hecht, Nicholas Vincent

ACM CHI 2024

## Peer Produced Friction: How Page Protection on Wikipedia Affects Editor Engagement and Concentration

2023

Leah Ajmani, Nicholas Vincent, Stevie Chancellor

10.1145/3610198 **(ACM CSCW 2023)** 

## The Dimensions of Data Labor: A Road Map for Researchers, Activists, and Policymakers to Empower Data Producers

2023

Hanlin Li, Nicholas Vincent, Stevie Chancellor, Brent Hecht

10.1145/3593013.3594070 **☑** (ACM FAccT 2023)

Behavioral Use Licensing for Responsible AI  Danish Contractor, Daniel McDuff, Julia Katherine Haines, Jenny Lee, Christopher Hines, Brent Hecht, Nicholas Vincent, Hanlin Li	2022
10.1145/3531146.3533143 ☑ (ACM FAccT 2022)  CEAM: The Effectiveness of Cyclic and Ephemeral Attention Models of User Behavior on Social Platforms	2021
Farhan Asif Chowdhury, Yozen Liu, Koustuv Saha, Nicholas Vincent, Leonardo Neves, Neil Shah, Maarten W Bos	
10.1609/icwsm.v15i1.18046 $ (AAAI ICWSM 2021)$	
Addressing "Documentation Debt" in Machine Learning Research: A Retrospective Datasheet for BookCorpus  Jack Bandy, Nicholas Vincent	2021
NeurIPS 2021 Datasets and Benchmarks Track	
AdverTiming Matters: Examining User Ad Consumption for Effective Ad Allocations on Social Media	2021
Koustuv Saha, Yozen Liu, Nicholas Vincent, Farhan Asif Chowdhury, Leonardo Neves, Neil Shah, Maarten W Bos	
$10.1145/3411764.3445394$ $\mathbf{C}$ (ACM CHI 2021)	
A Deeper Investigation of the Importance of Wikipedia Links to Search Engine Results	2021
Nicholas Vincent, Brent Hecht 10.1145/3449078 🗹 (ACM CSCW 2021)	
Can "Conscious Data Contribution" Help Users to Exert "Data Leverage" Against Technology Companies?	2021
Nicholas Vincent, Brent Hecht	
10.1145/3449177 🗹 (ACM CSCW 2021)	
Data Leverage: A Framework for Empowering the Public in its Relation- ship with Technology Companies	2021
Nicholas Vincent, Hanlin Li, Nicole Tilly, Stevie Chancellor, Brent Hecht 10.1145/3442188.3445885 🗹 (ACM FAccT 2021)	
How Do People Change Their Technology Use in Protest?: Understanding "Protest Users"	2019
Hanlin Li, Nicholas Vincent, Janice Tsai, Jofish Kaye, Brent Hecht	
10.1145/3359189 <b>☑</b> (ACM CSCW 2019)	
Measuring the Importance of User-Generated Content to Search Engines Nicholas Vincent, Isaac Johnson, Patrick Sheehan, Brent Hecht 10.1609/icwsm.v13i01.3248 🗹 (AAAI ICWSM 2019)	2019
"Data Strikes": Evaluating the Effectiveness of a New Form of Collective Action Against Technology Companies	2019
Nicholas Vincent, Brent Hecht, Shilad Sen	
$10.1145/3308558.3313742$ $\  \  \  \  \  \  \  \  \  \  \  \  \ $	
Women (still) ask for less: Gender differences in hourly rate in an online labor marketplace	2018
Eureka Foong, Nicholas Vincent, Brent Hecht, Elizabeth M Gerber 10.1145/3274322 ☑ (ACM CSCW 2018)	
Examining Wikipedia With a Broader Lens: Quantifying the Value of Wikipedia's Relationships with Other Large-Scale Online Communities	2018

### Workshop Publications

Designing an open-source LLM interface and social platforms for collectively driven LLM evaluation and auditing	2024
Timothy J. Baek, Nicholas Vincent, Lawrence Kim	
HEAL Workshop @ CHI 2024	
The Need for Flexible Interfaces for Text-to-Image Auditing: A Case Study of DALL $\cdot$ E 2 and DALL $\cdot$ E 3	2024
Clare Provenzano, Parsa Rajabi, Diana Cukierman, Nicholas Vincent GenAICHI Workshop @ CHI 2024	
An Alternative to Regulation: The Case for Public AI	2023
Nicholas Vincent, David Bau, Sarah Schwettmann, Joshua Tan RegML Workshop @ NeurIPS 2023	
Sharing the Winnings of AI with Data Dividends: Challenges with 'Meritocratic' Data Valuation	2023
Nicholas Vincent, Brent Hecht Poster track @ EAAMO 2023	
Collaborative Design of Contribution Tracking Systems for Decentralized Organizations	2022
Nicholas Vincent, Christine Vandevoorde CESC 2022 @ UC Berkeley	
Misleading Tweets and Helpful Notes: Investigating Data Labor by Twitter Birdwatch Users	2022
Isaiah Jones, Brent Hecht, Nicholas Vincent	
Poster track @ ACM CSCW 2022	
Deep learning of tissue fate features in acute ischemic stroke	2015
Noah Stier, Nicholas Vincent, David Liebeskind, Fabien Scalzo	
BIBM 2015 Workshop on Biomedical Visual Search and Deep Learning	
Detection of hyperperfusion on arterial spin labeling using deep learning Nicholas Vincent, Noah Stier, Songlin Yu, David S Liebeskind, Danny JJ Wang, Fabien Scalzo	2015
BIBM 2015 Workshop on Biomedical Visual Search and Deep Learning	
Other Publications	
Push and Pull: A Framework for Measuring Attentional Agency	2024
Zachary Wojtowicz, Shrey Jain, Nicholas Vincent	
arXiv preprint	
Twitter Engagement with Retracted Articles: Who, When, and How?	2022
Rod Abhari, Nicholas Vincent, Henry K Dambanemuya, Herminio Bodon, Emőke-Ágnes Horvát	
arXiv preprint	
From My Data to Our Data: A Proposal to Equitably Distribute Wealth in a Digital Economy, in The Future of Building Wealth: Brief Essays on the Best Ideas to Build Wealth—for Everyone	2021

Yakov Feygin, Nicholas Vincent, Hanlin Li, Chirag Lala, Luisa Scarcella Book Chapter

### A Data Dividend that Works: Steps Toward Building an Equitable Data Economy

2021

Yakov Feygin, Hanlin Li, Chirag Lala, Brent Hecht, Nicholas Vincent, Luisa Scarcella, Matthew Prewitt

Berggruen Institute white paper

### Mapping the Potential and Pitfalls of 'Data Dividends' as a Means of Sharing the Profits of Artificial Intelligence.

2019

Nicholas Vincent, Yichun Li, Renee Zha, Brent Hecht arXiv preprint

#### **News Coverage**

- $\circ\,$  Richard Mylles. Is data supply AI's Achilles' heel?  ${\ensuremath{\mathbb Z}}.$  UBS, June 2024
- Kevin Shaul. Is this AI? See if you can spot the technology in your everyday life. 🗹. The Washington Post, April 2024
- ∘ Tom McKay. Nicholas Vincent explains why robots.txt is no longer enough to protect against web scraping 

  ∠. IT Brew, March 2024
- ∘ Asaf Elia-Shalev. Jews have always been prolific writers. Has AI wound up with too much of their work? 

  ✓.

  Jewish Telegraphic Agency, March 2024
- o Nitasha Tiku. Newspapers want payment for articles used to power ChatGPT. ☑. The Washington Post, October 2023
- ∘ Kali Hays and Alistair Barr. AI is killing the grand bargain at the heart of the web. 'We're in a different world.' "∠". Business Insider, January 2024
- Alistar Barr. 'Data leverage' and the Harry Potter test: How much is a single book worth to a giant AI model? 

  L. Business Insider, August 2023
- o Jon Gernter. Wikipedia's Moment of Truth. Z. New York Times Magazine, September 2023
- o Melissa Heikkilä. We are all AI's free data workers. Z. MIT Technology Review, June 2023
- ∘ Aurélien Defer. Internet users are 'poisoning' their personal data in the fight against online surveillance. ☑. Le Monde, April 2022
- ∘ Rebecca Heilweil. Got the same name as a serial killer? Google might think you're the same person. ᠘. Vox, June 2021
- o Peter Coy. Facebook and Others Should Pay Us for Our Data. Here's One Way. Z. Bloomberg, May 2021
- Karen Hao. How to poison the data that Big Tech use to surveil you. 🗹. MIT Technology Review, March 2021
- ∘ Jonathan Vanian and Jeremy Kahn. Your data is a weapon that can help change corporate behavior. ☑. Fortune, February 2021
- ∘ Nicolás Rivero. Is it time for Netflix subscribers to go on strike? ". Quartz, July 2020
- o John Herrman. YouTube May Add to the Burdens of Humble Wikipedia. Z. New York Times, March 2018

#### Grants

**NSERC Discovery Grant:** Empowering Data Creators to Advance Responsible Artificial Intelligence. Prinical investigator. 2024-2029. 125,000 CAD.

Breaking Barriers Interdisciplinary Incentive Grant: Data Empowerment through Data Sharing in the Humanities. Co-investigator. 2024. With Michelle Levy, Sheelagh Carpendale, Denise Oleksijczuk. 60,000 CAD.

#### Professional Experience

Research Intern (Office of the CTO)

Microsoft

Redmond, WA, USA May 2021 – Aug 2021

Research Intern (Computational Social Science) $Snap\ Inc$	Santa Monica, CA, USA Mar 2020 – June 2020
Cloud Programming Specialist Cloudbakers	Chicago, IL, USA Sept 2016 – June 2017
NREIP Naval Research Intern  Space and Naval Warfare Systems Command (now NAVWAR)  • Also interned in 2015	San Diego, CA, USA June 2016 – Aug 2016
Software Engineer Intern Cisco Systems  • Also interned in 2013 (Cross Functional Intern)	San Jose, CA, USA June 2014 – Sept 2014

#### Teaching Experience

Primary Instructor Spring 2024

Simon Fraser University, School of Computing Science

∘ CMPT 419 🗹, Special Topics in AI: Human and Data-centered AI

Primary Instructor Sept 2023 – Dec 2023

Simon Fraser University, School of Computing Science

∘ CMPT 120 🗹, Introduction to Computing Science and Programming

Teaching Assistant Sept 2020 - Dec 2020

Northwestern University

• MTS 525 🗹, Statistics and Statistical Programming

#### Academic Reviewing

Conference Meta-reviews: AAAI ICWSM (2023), ACM EAAMO (2023)

Conferences: ACM CHI; ACM CSCW; AAAI ICWSM; NeurIPS (2023, 2024); NeurIPS Datasets and Benchmarks Track (2021, 2022, 2023, 2024); ICML (2024); ACM The Web Conference (2022 PC and 2023 PC); WikiWorkshop (2023 PC); ACM FAccT (2022, 2023, and 2024 PC); ACM WSDM (2023 PC); IC2S2 (2023); ACM EAAMO

**Journals:** Nature Machine Intelligence; PLOS One; Patterns; Information, Communication, and Society; ACM Journal on Responsible Computing

Funding: Wikimedia Foundation Research Fund

Commendations: Best Reviewer - ICWSM 2022, Outstanding Reviewer - NeurIPS Datasets and Benchmarks 2022, Best Reviewer - ICWSM 2021, Highly useful reviewer - CSCW 2022

#### Conference Service

#### AI Palace Organizer 2023 - 2024

o Organized the AI Palace conference in Bückeberg, Germany in 2023 and 2024.

#### ICWSM 2024 Data Challenge Co-chair

2024

Organized the Data Challenge conference track at ICWSM 2024.

#### InfoSocial Graduate Student Conference General Chair

2018

• Served as one of two co-chairs for the InfoSocial 🗹 student-run conference, which included paper sessions, panels, and networking opportunities.

#### Workshops Organized

- ∘ Hanlin Li, Leah Ajmani, Moyan Zhou, Nicholas Vincent, Sohyeon Hwang, Tiziano Piccardi, Sneha Narayan, Sherae Daniel, Veniamin Veselovsky. Ethical Tensions, Norms, and Directions in the Extraction of Online Volunteer Work 

  ✓. Workshop at CSCW 2022, 2022

#### Other Service

Simon Fraser University, Undergraduate Program Committee	2023-2024
California Data Dividends Working Group, Organizer	2019-2022
Northwestern University Artificial Intelligence Journal Club, Organizer	2019-2021
Northwestern University, Computer Science Ph.D. Advisory Council	2018

#### Graduate Student Research Mentoring

MSc Students at Simon Fraser University: Parsa Rajabi (Examiner), Mahdie Ghane (Committee Member)

#### Undergraduate Student Research Mentoring

At Northwestern University (People, Space, and Algorithms Research Group): Patrick Sheehan (cowrote a conference paper), Ramish Zaidi, Alan Li (co-wrote a preprint), Renee Zha (co-wrote a preprint), Neil Vakharia, Isaiah Jones (first author of a workshop paper)

At Simon Fraser University (People and Data Computing Group): Clare Provezano (first author of a workshop paper), Patrick Zhao, Jashandeep Kaur, Laksh Agarwal

#### Awards

- ∘ ACM SIGCHI Outstanding Dissertation Award ∠, 2024
- o Northwestern University School of Communication Graduate Dissertation Award 🗹, 2023
- o President Fellowship Finalist, Northwestern University, 2019
- o NSF-GRFP Honorable Mention, 2018

#### Selected Talks

Economic Concentration and Dispossessive Data Use: Can HCI Solve Challenges from and to AI?	May 2024
$\circ$ Event: SIGCHI 2024 Outstanding Dissertation Award ${\bf Z}$	
A New Grand Data Bargain for Public Interest AI	Feb 2024
∘ Event: Digital Democracies Institute Spring Speaker Series 🗹	
Responsive LLM Development	Jan 2024
$\circ$ Event: University of Toronto Data Sciences Institute: Fairness - ChatGPT Workshop $\red$	
Community Dialogue on Accountable Governance and Data  ◦ Event: Community Data Science Collective Community Dialogues	Mar 2023
Algorithmic Contestability	Jan 2023
Public interest technologies for the ML age  ◦ Event: 3rd Obfuscation Workshop	May 2021

The Importance of Wikipedia to Search Engines and Other Systems	$May\ 2021$
$\circ$ Event: Wikipedia Research Showcase ${\bf Z}$ (Video ${\bf Z})$	
Data Agency: Individual or Shared?	Jan 2021
∘ Event: RadicalxChange Panels (Video 🗹)	
Data Driven Economy for All	July 2020
The Critical Relationship of Volunteer-Created Wikipedia Content to Large-	Apr 2018
Scale Online Communities	
o Event: Wikipedia Research Showcase 🔀 (Video 🔀)	