Data Justice Links: Resources for Critical Thinking about AI Hype, AI Harms, and Emerging Technologies in Education and Public Services
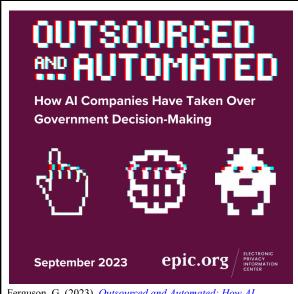Shortlink to share this page: http://bit.ly/DataJusticeLinks*
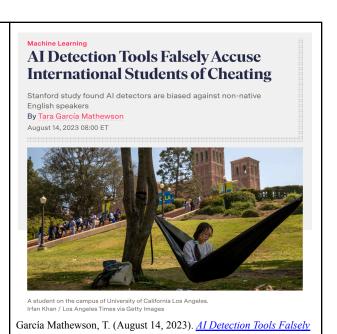
Featured posts for April, 2024

Williamson, B., Molnar, A., & Boninger, F. (2024). *Time for a pause: Without effective public oversight, AI in schools will do more harm than good.* Boulder, CO: National Education Policy Center. Retrieved March 7, 2024 from http://nepc.colorado.edu/publication/ai.

Holzmeyer, C. (2021). Beyond 'AI for Social Good' (AI4SG): Social transformations - not tech fixes - for health equity. *Interdisciplinary Science Reviews, 46 (1-2),* 94-125.

Williamson, B., (2024). AI in Education is a Public Problem: 21 Arguments Against AI in Education. *Code Acts in Education.*
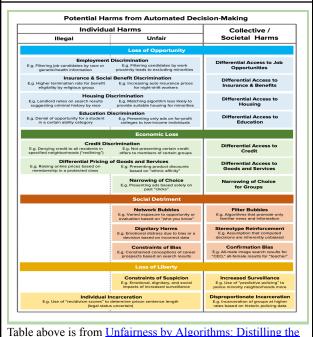

OUTSOURCED AND AUTOMATED

How AI Companies Have Taken Over Government Decision-Making

September 2023   epic.org / ELECTRONIC PRIVACY INFORMATION CENTER

Ferguson, G. (2023). *Outsourced and Automated: How AI Companies Have Taken Over Government Decision-Making.* Electronic Privacy Information Center.

Machine Learning

AI Detection Tools Falsely Accuse International Students of Cheating

Stanford study found AI detectors are biased against non-native English speakers

By Tara García Mathewson
August 14, 2023 08:00 ET

A student on the campus of University of California Los Angeles.
Irfan Khan / Los Angeles Times via Getty Images

García Mathewson, T. (August 14, 2023). *AI Detection Tools Falsely Accuse International Students of Cheating.* The Markup.

ACLU RESEARCH REPORT

Digital Dystopia
The Danger in Buying What the EdTech Surveillance Industry is Selling

ACLU

ACLU (2023). *Digital Dystopia: The Danger in Buying What the EdTech Surveillance Industry is Selling.* American Civil Liberties Union.

School Board Model Policy - School Surveillance Technology

Model Bill - Student Surveillance Technology Acquisition Standards Act

School Leadership Checklist - School Surveillance Technology

10 Questions for School Board Meetings - School Surveillance Technology

Potential Harms from Automated Decision-Making

Individual Harms		Collective / Societal Harms
Illegal	**Unfair**	
Loss of Opportunity		
Employment Discrimination		**Differential Access to Job Opportunities**
E.g. Filtering job candidates by race or genetic/health information	E.g. Filtering candidates by work proximity leads to excluding minorities	
Insurance & Social Benefit Discrimination		**Differential Access to Insurance & Benefits**
E.g. Higher termination rate for benefit eligibility by religious group	E.g. Increasing auto insurance prices for night-shift workers	
Housing Discrimination		**Differential Access to Housing**
E.g. Landlord relies on search results suggesting criminal history by race	E.g. Matching algorithm less likely to provide suitable housing for minorities	
Education Discrimination		**Differential Access to Education**
E.g. Denial of opportunity for a student in a certain ability category	E.g. Presenting only ads on for-profit colleges to low-income individuals	
Economic Loss		
Credit Discrimination		**Differential Access to Credit**
E.g. Denying credit to all residents in specified neighborhoods ("redlining")	E.g. Not presenting certain credit offers to members of certain groups	
Differential Pricing of Goods and Services		**Differential Access to Goods and Services**
E.g. Raising online prices based on membership in a protected class	E.g. Presenting product discounts based on "ethnic affinity"	
Narrowing of Choice		**Narrowing of Choice for Groups**
E.g. Presenting ads based solely on past "clicks"		
Social Detriment		
Network Bubbles		**Filter Bubbles**
E.g. Varied exposure to opportunity or evaluation based on "who you know"		E.g. Algorithms that promote only familiar news and information
Dignitary Harms		**Stereotype Reinforcement**
E.g. Emotional distress due to bias or a decision based on incorrect data		E.g. Assumption that computed decisions are inherently unbiased
Constraints of Bias		**Confirmation Bias**
E.g. Constrained conceptions of career prospects based on search results		E.g. All-male image search results for "CEO," all-female results for "teacher"
Loss of Liberty		
Constraints of Suspicion		**Increased Surveillance**
E.g. Emotional, dignitary, and social impacts of increased surveillance		E.g. Use of "predictive policing" to police minority neighborhoods more
Individual Incarceration		**Disproportionate Incarceration**
E.g. Use of "recidivism scores" to determine prison sentence length (legal status uncertain)		E.g. Incarceration of groups at higher rates based on historic policing data

Table above is from Unfairness by Algorithms: Distilling the

AI Executive Order: Human Readable Edition

Marachi, R. (December 13, 2023). AI Hype meets AI Harms: Data Privacy Vulnerabilities with AI Initiatives in Education. Prepared for the National Education Association AI Task Force.

Marachi, R. (October 31, 2023). AI Hype, AI Harms, and Emerging Technologies in Education [Slidedeck]. Presentation prepared for the *Center for Leadership, Equity, and Research.*

ProfileGPT: What does ChatGPT know about you ?

AI and ChatGPT cheating allegations at Cambridge and Pukekohe High outrage parents - NZ Herald

FTC to Ban BetterHelp from Revealing Consumers' Data, Including Sensitive Mental Health Information, to Facebook and Others for Targeted Advertising // Federal Trade Commission, March 2, 2023

Top 5 AI Risks In The Era Of ChatGPT and Generative AI // Glenn Gow, Forbes

Why Does AI Lie, and What Can We Do About It? // Robert Miles [Video]

Generative AI like ChatGPT reveal deep-seated systemic issues beyond the tech industry // The Conversation

Ethicists fire back at 'AI Pause' letter they say 'ignores the actual harms' // TechCrunch

Why you shouldn't trust AI search engines // MIT Technology Review

Pausing AI Developments Isn't Enough: We Need to Shut It All Down

ChatGPT: Help or Hype? - Dr. Sara West and Dr. Roxana Marachi discuss controversies of ChatGPT and generative AI tools. Quick Bites event live streamed on 2/20, hosted by the *College of Humanities and the Arts* at SJSU.

Generative AI ChatGPT Can Disturbingly Gobble Up Your Private And Confidential Data, Forewarns AI Ethics And AI Law

Agomuoh, F. (January 27, 2023). The 6 biggest problems with ChatGPT right now. *Digital Trends.*

Brown, S. (2015). *Dark Matters: On the Surveillance of Blackness.* Durham: Duke University Press.

Fussell, S. (June 19, 2020). How Surveillance Has Always Reinforced Racism. *Wired.com.*

Dubal, V. (January 23, 2023). The House Always Wins: The Algorithmic Gamblification of Work. *The Law and Political Economy Project.*

Chiang, T. (2019). Silicon Valley Is Turning Into Its Own Worst Fear. *Buzzfeed News.*

Edwards, B. (January 10, 2023). Controversy erupts over non-consensual AI mental health experiment [Updated]. *Ars Technica.*

Redden, J. (December 7, 2017). Six ways (and counting) that big data systems are harming society. *The Conversation.*

Gilbert, D. (August 14, 2022). How King County's efforts to help at-risk students created a record that could jeopardize their privacy. *The Seattle Times.*

Angwin, J. & Marachi, R. (January 15, 2022). The Big Business of Tracking and Profiling Students. *The Markup. Hello World. Dispatches from Editor-in-Chief, Julia Angwin.*

Angwin, J. (March 6, 2021). The Rise - and the Recurring Bias - of Risk Assessment Algorithms. *The MarkUp.*

Caines A., & Silverman, S. (2021). Back Doors, Trap Doors, and Fourth-Party Deals: How You End up with Harmful Academic Surveillance Technology on Your Campus without Even Knowing. *The Journal of Interactive Technology and Pedagogy.*

Human Rights Watch (2022). Online Learning Products Enabled Surveillance of Children. *Human Rights Watch.*

Feathers, T. (January 11, 2022). This Private Equity Firm is Amassing Companies that Collect Data on America's Children. *The Markup.*

Feathers, T. (January 13, 2022). College Prep Software Naviance is Selling Advertising Access to Millions of Students. *The Markup.*

Feathers, T. (March 2, 2021). Major Universities Are Using Race as a "High Impact Predictor" of Student Success. *The MarkUp.* [For more on EAB ("Education Advisory Board"), see **http://bit.ly/EAB_Race**]

Keierleber, M. (October 12, 2021). Gaggle Surveils Millions of Kids in the Name of Safety. Targeted Families Argue it's 'Not That Smart.' *The 74 Media.*

Naranayan, A. (January 16, 2021). How to recognize AI snake oil [Slides]. [Video]. Princeton University.

Rhoades, A. (2020). Big Tech Makes Big Data Out of Your Child: The FERPA Loophole EdTech Exploits to Monetize Student Data. *American University Business Law Review*, 9 (3), 445-474.

Calo, R., & Citron, D.K. (2021). The Automated Administrative State: A Crisis of Legitimacy. *Emory Law Journal, 70*(4), 797-845.

Williamson, B. (2019). Psychodata: disassembling the psychological, economic, and statistical infrastructure of 'social-emotional learning'. *Journal of Education Policy, 36*(1), 129-154.

Stanley, J. (March 3, 2022). Fast Growing Company Flock is Building a New AI-Driven Mass Surveillance System. *ACLU - American Civil Liberties Union.* See *also http://bit.ly/NoFlockSJ* for local/Silicon Valley context.

AI and Algorithmic Incident Controversy (AIAAIC) Repository of AI, algorithmic and automation-driven incidents and controversies // https://www.aiaaic.org/ // See also http://bit.ly/AIcontroversy @AIcontroversy // #AIcontroversy // AI Global: Where in the World Is AI?

NAACP Resolutions relevant to Artificial Intelligence (AI), Algorithmic Bias, Data Justice, and the Prevention of Data Harms (2019-2021) // http://bit.ly/NAACP_DataJusticeResolutions

       2019 NAACP Resolution Opposing Use of Blockchain Digital Identity Systems (p. 62-63)
       (CA/HI State NAACP and National NAACP, 2019)

       2020 NAACP Resolution Protecting Youth from Data Exploitation by Online Technologies and Applications // (CA/HI State NAACP and National NAACP, 2020)

       2021 NAACP Resolution on Facial Recognition (pp. 47-48)
       (CA/HI State NAACP and National NAACP, 2021)

Critical Perspectives on ChatGPT and Generative AI

ChatGPT & Education

According to OpenAI "ChatGPT is a language model trained to produce text" (Natalie, 2022, para. 2). Put simply, you ask a question or write a prompt, ChatGPT responds with text.

What Do You Need to Know About ChatGPT?

ChatGPT is NOT Always Trustworthy	ChatGPT is NOT Safe
• OpenAI is not transparent about the data ChatGPT uses to generate text. • It may generate misleading, false, offensive, or biased content (OpenAI, 2022). • Questions related to events or the world after 2021 "may also occasionally produce harmful instructions or biased content" (Natalie, 2022, para. 4). • When asked to cite sources, ChatGPT (so far) tends to make up references/citations that do not exist.	According to the Privacy Policy, ChatGPT: • Is not to be used by children under 13. • Is collecting a massive amount of information from its users (e.g., IP address, user actions, browser/device, country). • Does not abide by any "Do Not Track" signals. • May share your information with third-party vendors, law enforcement, affiliates, and other users. NOTE: OpenAI does not recommend sharing any sensitive information when asking ChatGPT questions because any user inputted text cannot be deleted from the system (Natalie, 2022).

https://drive.google.com/file/d/1m358jmLKYl-1wk3CQf6pqgGJyEcg6ONk/view

Goldstein, J. A., Sastry, G., Musser, M., DiResta, R., Gentzel, M., and Sedova, K. (2023). Generative Language Models and Automated Influence Operations: Emerging Threats and Potential Mitigations. *Computers and Society.* Available at https://arxiv.org/abs/2301.04246.

Fowler, G. A. (April 3, 2023). We tested a new ChatGPT-detector for teachers. It flagged an innocent student. *The Washington Post.*

Agomuoh, F. (January 27, 2023). The 6 biggest problems with ChatGPT right now. *Digital Trends.*

Angwin, J. (January 28, 2023). Decoding the Hype About AI: A Conversation with Arvind NarayanaI. *The Markup.*

O Brien, D. (January 26, 2023). ChatGPT and the Enshittening of Knowledge. *Castlebridge.*

Edwards, B. (January 10, 2023). Controversy erupts over non-consensual AI mental health experiment [Updated]. *Ars Technica.*

Caines, A. (January 18, 2023). Prior to (or instead of) using ChatGPT with your students. *Is a Liminal Space.*

Baxter, B. (December 23, 2022). ChatGPT Creator OpenAI Bolsters Legal Ranks as Issues Grow. *Bloomberg Law.*

Eliot, L. (January 23, 2023). Generative AI ChatGPT Can Disturbingly Gobble Up Your Private And Confidential Data, Forewarns AI Ethics And AI Law. *Forbes.*

Jarovsky, L. (February 8, 2023). AI-Based Companions like Replika are Harmful to Privacy and Should be Regulated. *The Privacy Whisperer*

Experts fear ChatGPT will soon be used in devastating cyberattacks

Italian DPA bans #AI chatbot "Replika" due to child safety concerns

Armed With ChatGPT, Cybercriminals Build Malware and Plot Fake Girl Bots

Statement on Artificial Intelligence Writing Tools in Writing Across the Curriculum Setting
Association for Writing Across the Curriculum

Weil, E. (March 1, 2023). You Are Not a Parrot. *NY Magazine Intelligencer.*

Critical Perspectives on Blockchain Digital ID Systems

Open letter signed by over 1,500 computer scientists, software engineers, and technologists documenting problems and harms of blockchain data systems: **http://concerned.tech**. Related post here: *Tech experts urge Washington to resist crypto industry's influence* - *Financial Times*

[2019 NAACP Resolution Opposing Use of Blockchain Digital Identity Systems](p. 62-63)
(CA/HI State NAACP and National NAACP, 2019)

Berger, J. (June 4, 2018). [Blockchain - Chock full of problems for medical data privacy](). *Blockchains for the Information Profession.*

Conover, A. (Jun 28, 2022). [Popping the Crypto Bubble with Nicholas Weaver](). *Factually with Adam Conover (Podcast).*

Low, K.F. and Mik, E. (June 20, 2019). [Pause the Blockchain Legal Revolution.]() *International & Comparative Law Quarterly, 69*(1), 135-175. Available at SSRN: [https://ssrn.com/abstract=3439918]()

Marachi, R., (August 4, 2023). [*Breaking Free from Blockchaining Babies and "Cradle-to-Career" Data Traps.*]() Closing Keynote for 2nd Annual Civics of Technology Conference.

Marachi, R., (July 21, 2023). [*Breaking Free from Blockchaining Babies and "Cradle-toCareer" Data Traps*](). Invited post for Civics of Technology blog.

Marachi, R. (September 6, 2022). [*Tokenizing Toddlers: Cradle-to-Career Behavioral Tracking on Blockchain, Web3, and the "Internet of Education*]()" Crypto Policy Symposium [video segment]. London, UK. Extended slidedeck available [here]().

Marachi, R. (September, 2022). *Federal Trade Commission Hearing for Commercial Surveillance and Data Security* [Public comment]. [Video comment here](). Written transcription at [http://bit.ly/Marachi_FTC_Statement]()

Reneiris, E. (September 23, 2019). [Forget erasure: why blockchain is really incompatible with the GDPR.]() *Berkman Klein Center Collection.* Republished on Medium.

White, M. (2022)*.* [*Web3 is going just great*](). Web3isgoinggreat.com. [Archive of Crypto, Web3, Blockchain Fraud]

Subset of critical perspectives on blockchain/related files ([http://bit.ly/Blockchain_Files]()) connected to the Social Impact sector including education (from larger collection on privatization of public services [http://bit.ly/sibgamble]())

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Media, Community, and Web Resources

[*Coded Bias Documentary*, Directed by Shalini Kantayya]()
To view through SJSU OneSearch, see [*Coded Bias*]() */* Also available for streaming on [Netflix]()
Permalink: [https://sjsu-primo.hosted.exlibrisgroup.com/permalink/f/1cue0e3/01CALS_ALMA715991593900029]()

[Educational Psychology & Technology: Critical Perspectives and Resources]()
[http://bit.ly/edpsychtech]()

Collection of articles, peer-reviewed research, and social media on controversies/harms of remote online proctoring "invigilation" programs (Proctorio, HonorLock, Examity, ProctorU, etc.). Curated by [Charles Logan]().
[http://bit.ly/online_proctoring]()

[Design for Cognitive Bias Resources Sheet]() (curated by David Dylan Thomas)

Critical posts and updates on [#SurveillanceTech]() rolling out in cities: ALPR (Automated License Plate Reader) Technologies // [http://bit.ly/ALPR_SJ]()

AI and Algorithmic Incident Controversy (AIAAIC) Repository of AI, algorithmic and automation-driven incidents and controversies // [https://www.aiaaic.org/]() // See also [http://bit.ly/AIcontroversy]()
[@AIcontroversy]() // [#AIcontroversy]() // [AI Global: Where in the World Is AI?]()

AI Myths // aimyths.org

AI Now Institute // https://ainowinstitute.org/

Algorithmic Justice League - Unmasking AI Harms and Biases
https://www.ajl.org/ // https://www.ajl.org/library/research

Center for Critical Race and Digital Studies // NYU Institute of Development and Social Change
https://criticalracedigitalstudies.com/about/

Center for Democracy and Technology
https://cdt.org/

Center for Digital Democracy
https://www.democraticmedia.org/

Data Justice Lab - Exploring Social Justice in the Age of Datafication
Cardiff University's School of Journalism, Media, and Culture
https://datajusticelab.org/

UCLA Institute for Technology, Law, and Policy
https://law.ucla.edu/academics/centers/institute-technology-law-policy

Encode Justice
https://encodejustice.org/

The Color of Surveillance // Georgetown Law, Center on Privacy and Technology
https://www.law.georgetown.edu/privacy-technology-center/events/color-of-surveillance-2019/

Landlord Tech Watch

To view security analyses of Android Apps (including many learning, edtech, and children's related apps) visit:
https://search.appcensus.io/

Mozilla's PrivacyNotIncluded page:
https://foundation.mozilla.org/en/privacynotincluded/ // Social media feed: #PrivacyNotIncluded

Parent Coalition for Student Privacy
https://studentprivacymatters.org/

Student Data Privacy Project
https://www.studentdataprivacyproject.com/

US State Privacy Legislation Tracker
https://iapp.org/resources/article/us-state-privacy-legislation-tracker/

Surveillance Technology Oversight Project

Related Research Articles and Educational Media

Allen, A. (February 22, 2022). Dismantling the "Black Opticon": Privacy, Race, Equity, and Online Data-Protection Reform. *The Yale Law Journal Forum, University of Pennsylvania Law School, Public Law Research Paper No. 22-16.* http://dx.doi.org/10.2139/ssrn.4022653

Allgood, M. (April 30, 2021). Platform Companies Beware - Proposed EU AI Regulations and Risk as a Competitive Advantage. *Medium.*

Barrett, L. (June 21, 2021). Rejecting Test Surveillance in Higher Education. *Georgetown University Law Center.* Available at SSRN: https://ssrn.com/abstract=3871423

Barshay, J., & Aslanian, S. (2019). Colleges are using big data to track students in an effort to boost graduation rates, but it comes at a cost. Under a Watchful Eye: Critics question if predictive analytics at college invades privacy and reinforces racial inequities. *The Hechinger Report.* [For more, see http://bit.ly/EAB_Race]

Berger, J. (2019). Unified surveillance systems: Data mining with PeekYou, GPS and facial recognition. *Journal of Data Protection and Privacy, 2*(4), 368-374.

Boninger, F., Molnar, A., & Murray, K. (2017). Schoolhouse Commercialism, Student Privacy, and the Failure of Policymaking. *Commercialism in Education Research Unit, National Education Policy Center.*

Brown, M., & Klein, C. (2020). Whose Data? Which Rights? Whose Power? A Policy Discourse Analysis of Student Privacy Policy Documents. *The Journal of Higher Education, 91*(7), *1149-1178.*

Carter, M., & Egliston, B. (2021). What are the risks of Virtual Reality data? Learning Analytics, Algorithmic Bias and a Fantasy of Perfect Data. *New Media and Society.*

Christl, W. (October, 2017). How Companies Use Data Against People: Automated Disadvantage, Personalized Persuasion, and the Societal Ramifications of the Commercial Use of Personal Information. *Cracked Labs Institute for Critical Digital Culture.* Vienna, Austria.

Costello, K.L., & Floegel, D. (2020). "Predictive ads are not doctors": Mental health tracking and technology companies. *Proceedings of the Association for Information Science and Technology,* 1-11.

Crawford, K., & Joler, V., (2018). Anatomy of an AI System: The Amazon Echo as an anatomical map of human labor, data and planetary resources. *The SHARE Lab and AI Now Institute.*

Dencik, L., Hintz, A., Redden, J., & Treré, E. (2019). Exploring Data Justice: Conceptions, Applications, and Directions. *Information, Communication, and Society, 22*(7), 873-881.

Enomoto, J. (n.d.) Why AI Technology is a Scam. *Crush the Street.*

Ezarik, M. (August 17, 2021). Data Collection Comforts: Most Students Trust Their Colleges. Students don't know a lot about what their colleges are doing with their data, and experts say institutions must help them think more critically about data privacy. Here's how. *Inside Higher Education.*

Feathers, T. (March 2, 2021). Major Universities Are Using Race as a "High Impact Predictor" of Student Success. *The MarkUp.* [For more, see http://bit.ly/EAB_Race]

Feathers, T. & Ng, A. (May 26, 2022). Tech Industry Groups are Watering Down Attempts at Privacy Regulation, One State at a Time. *The MarkUp.*

Gleason, B., & Heath, M. K. (2021). Injustice embedded in Google Classroom and Google Meet: a techno-ethical audit of remote educational technologies. *Italian Journal of Educational Technology, 29*(2), 26-41. https://doi.org/10.17471/2499-4324/1209

Hamraie, A., & Fritsch, K. (2019). Crip technoscience manifesto. *Catalyst: Feminism, Theory, Technoscience, 5*(1), 1-34.

Hanna, A., Denton, E., Smart, A., & Smith-Loud, J. (January 27-30, 2020). Towards a Critical Race Methodology in

Algorithmic Fairness. In *Conference on Fairness, Accountability, and Transparency, Barcelona, Spain. Association for Computing Machinery (ACM)*, New York, NY, USA. https://doi.org/10.1145/3351095.3372826.

Heeks, R. & Shekhar, S. (2019). Datafication, development and marginalised urban communities: An applied data justice framework. *Information, Communication & Society*, *22*(7), 992-1011.

Heller, B., & Bar-Zeev, A. (2021). The Problems with Immersive Advertising: In AR/VR, Nobody Knows You Are an Ad. *Journal of Online Trust and Safety*, October 2021, 1-14.

Hill, K. (May 27, 2022). Accused of Cheating by an Algorithm, and a Professor She Had Never Met. *New York Times*. [See also: http://bit.ly/online_proctoring)

Ito, J. (February 5, 2019). Supposedly 'Fair' Algorithms Can Perpetuate Discrimination. *Wired*.

Keyes, O. (2018). The Misgendering Machines: Trans/HCI Implications of Automatic Gender Recognition. *Proceedings of the ACM on Human-Computer Interaction, 2*(88)*, 1-22. https://dl.acm.org/doi/10.1145/3274357*.

Koenig, R. (October 17, 2019). At EduCause, A Push to Monitor Student Data is Met With Concerns About Privacy and Equity, *EdSurge*.

Krutka, D.G., Smits, R.M, & Willhelm, T.A. (2021). Don't Be Evil: Should We Use Google In Schools? *Association for Educational Communications & Technology.* Available at:
https://link.springer.com/article/10.1007%2Fs11528-021-00599-4

Levine, A. S. (January 28, 2022). Suicide hotline shares data with for-profit spinoff, raising ethical questions. *Politico.*

Madden, M., Gilman, M., Levy, & Marwick, A. (2018). Privacy, Poverty, and Big Data: A Matrix of Vulnerabilities for Poor Americans. *Washington University Law Review, 95*(1), 53-125.

Marachi, R. (October 14, 2022). *Babies, Blockchain, and BigData: "Cradle-to-Career" Behavioral Tracking and the Tokenization of Children's Data for the New Economy*. RSCA in Five: Faculty Short Talks on Big Data and Data Science. San José State University.

Marachi, R., (March 24, 2022). How Surveillance Capitalism Ate Education for Lunch [Slidedeck]. University of Pittsburgh, Year of Data and Society Speaker Series.

Marachi, R., (May 6, 2021). Philanthrocapitalism and Equity Doublespeak: When "Innovation" is Exploitation and Silicon Solutions Fuel Next Level Systemic Racism [Slidedeck]. Lurie College of Education Research Symposium Presentation. *San José State University*. San José, CA.

Marachi, R., & Carpenter, R. (2020). Silicon Valley, philanthrocapitalism, and policy shifts from teachers to tech. In Givan, R.K. and Lang, A.S. (Eds.). *Strike for the Common Good: Fighting for the Future of Public Education.* Ann Arbor: University of Michigan Press.

McBride, S. (September 28, 2020). Why "AI" Is A Fraud. *Forbes.*

Nash, P. (April 28, 2022). De-identification is a lie. You need to know now. *LinkedIn.*

Newton, D. (April 26, 2021). From admissions to teaching to grading, AI is infiltrating higher education: As colleges' use of the technology grows, so do questions about bias and accuracy. The Hechinger Report.

Parnther, C., & Eaton, S.E. (June 23, 2021). Academic Integrity and Anti-Black Aspects of Educational Surveillance and E-Proctoring. *Teachers College Record.*

Perrotta, C., Gulson, K.N., Williamson, B., & Witzenberger, K., (2020). Automation, APIs and the distributed labour of platform pedagogies in Google Classroom, 62(1), 97-113.

Russell, N. Cameron, J., Reidenberg, Martin, E., & Norton, T. (2018). Transparency and the Marketplace for Student Data. *Virginia Journal of Law and Technology.*

Schwartz, J. (2020). Student Privacy Pledge delivers neither privacy nor enforcement. *The Hill.*

Selinger, E., & Rhee, J. H. (2021). Normalizing surveillance. *Northern European Journal of Philosophy, 22*(1), 49-74.

Selwyn, N., & Gašević, D. (2020). The datafication of higher education: discussing the promises and problems. *Teaching in Higher Education: Critical Perspectives, 25*(4), 527-540.

Slaughter, R. (2021). Algorithms and economic justice: A taxonomy of harms and a path forward for the Federal Trade Commission. *Yale Law School Information Society Projec*t.

St. Fleur, N. (May 30, 2022). 'Racism is America's oldest algorithm.' How bias creeps into healthcare AI. *Stat.*

Walman, A. E. (2021). Outsourcing Privacy. *Notre Dame Law Review, 96,* 194-210.

Watters, A. (December 31, 2019). The 100 Worst Ed-Tech Debacles of the Decade. *Hack Education.*

Whittaker, M. (2021). The steep cost of capture. *Interactions, 28, 6, 50-55.*

Williamson, B. (2016). Decoding ClassDojo: Psycho-policy, social-emotional learning and persuasive educational technologies, *Learning, Media, and Technology, 42*(4), 440-453.

Williamson, B. (2019). Digital policy sociology: software and science in data-intensive precision education. *Critical Studies in Education, 62*(3), 354-370.

Williamson, B. (2019). Psychodata: disassembling the psychological, economic, and statistical infrastructure of 'social-emotional learning'. *Journal of Education Policy, 36*(1), 129-154.

Williamson, B., Bayne, S., & Shay, S. (2020). The datafication of teaching in higher education: Critical issues and perspectives. *Teaching in Higher Education: Critical Perspectives. 25*(4), 351-365.

Williamson, B. (December 15, 2020). New financial actors and valuation platforms in education technology markets. *Code Acts in Education.*

Williamson, B. (July 26, 2018). Genetics, big data science, and postgenomic education research. *Code Acts in Education.*

Zeide, E. (2017). The Structural Consequences of Big Data-Driven Education. *Big Data*, 5,(2), 164-172. Available at SSRN: https://ssrn.com/abstract=2991794

Zeide, E. & Nissenbaum, H. F. (2018). Learner Privacy in MOOCs and Virtual Education (November 18, 2018). *Symposium on Big Data in Education.*

Books

Amrute, S. (2016). *Encoding Race, Encoding Class: Indian IT Workers in Berlin*. Durham: Duke University Press.

Benjamin, R. (2019). *Race After Technology: Abolitionist Tools for the New Jim Code.* Cambridge: Polity Press.

Broussard, M. (2018). *Artificial Unintelligence: How Computers Misunderstand the World*. London: MIT Press.

Black, E. (2012). *IBM and the Holocaust* [Expanded Edition]. Dialog Press. See here for background.

Browne, S. (2015). *Dark Matters: On the Surveillance of Blackness*. Durham: Duke University Press.

Chun, W.H. (2021). *Discriminating Data: Correlation, Neighborhoods, and the New Politics of Recognition*. Cambridge: MIT Press.

Costanza-Chock, S. (2020). *Design Justice: Community-Led Practices to Build the Worlds We Need*. Cambridge: MIT Press.

Crawford, K. (2021). *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. New Haven: Yale University Press.

D'Ignazio, C. & Klein, L.F. (2020). *Data Feminism*. Cambridge: MIT Press.

Daniels, J. (2009). *Cyber Racism*. Washington, DC: Rowman & Littlefield.

Dubrofsky, R.E. & Magnet, S.A. (Eds.). (2015). *Feminist Surveillance Studies*. Durham: Duke University Press.

Estreich, G. (2019). *Fables and Futures: Biotechnology, Disability, and the Stories We Tell Ourselves*. Cambridge: MIT Press.

Everett, A. (2009). *Digital Diaspora: A Race for Cyberspace*. Albany: State University of New York Press.

Eubanks, V. (2018). *Automating Inequality: How High Tech Tools Profile, Police, and Punish the Poor*. New York: St. Martin's Press.

Ferguson, A. G. (2017). *The Rise of Big Data Policing: Surveillance, Race, and the Future of Law Enforcement*. New York: NYU Press.

Floridi, L. (2021). *Ethics, Governance, and Policies in Artificial Intelligence*. Switzerland: Springer.

Gray, M.L. & Suri, S. (2019). *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass*. Chicago. Mariner Books.

Greene, D. (2021). *The Promise of Access: Technology, Inequality, and the Political Economy of Hope*. Cambridge: MIT Press.

Green, B. (2019). *The Smart Enough City: Putting Technology in Its Place to Reclaim Our Urban Future*. Cambridge: MIT Press.

Han, B.C. (2017). *Psychopolitics: Neoliberalism and New Technologies of Power*. Translated by Erik Butler. Brooklyn: Verso Books.

Jenkins, D., & Leroy, J. (Eds.). (2021). *Histories of Racial Capitalism*. New York: Columbia University Press.

Jones, M. L. (2018). *Ctrl + Z: The Right to Be Forgotten*. New York: New York University Press.

Keyes, O. (2018). *The Misgendering Machines: Trans/HCI Implications of Automatic Gender Recognition*. *Proceedings of the ACM on Human-Computer Interaction, 2*(88), 1-22. https://dl.acm.org/doi/10.1145/3274357

Lupton, L. *The Quantified Self*. Cambridge: Polity Press.

Lyon, D. (Ed.). (2002). *Surveillance as Social Sorting: Privacy, Risk and Automated Discrimination*. London: Routledge.

Magnet, S.A. (2011). *When Biometrics Fail: Gender, Race, and the Technology of Identity*. Durham: Duke University Press.

McIlwain, C.D. (2019). *Black Software: The Internet & Racial Justice, from the AfroNet to Black Lives Matter*. New York: Oxford University Press.

McLean, J. (2020). *Changing Digital Geographies: Technologies, Environments and People*. New York: Palgrave McMillan.

Molnar A., & Boninger, F. (2015). *Sold Out: How Marketing in School Threatens Children's Well-Being and Undermines Their Education*. New York: Rowman & Littlefield.

Nakamura, L. (2002). *Cyber Types: Race, Ethnicity, and Identity on the Internet*. New York: Routledge.

Nakamura, L. & Chow-White, P. (Eds.). (2011). *Race after the Internet*. New York: Routledge.

Nelson, A. (2016). *Technicolor: Race, Technology, and Everyday Life*. Boston: Beacon Press.

Noble, S. (2018). *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York: NYU Press.

O'Neil, C. (2016). *Weapons of math destruction: How big data increases inequality and threatens democracy*. New York: Crown Publishing Group.

Pasquale, F. (2015). *The Black Box Society: The Secret Algorithms That Control Money and Information*. Cambridge: Harvard University Press.

Reardon, J. (2017). *The Postgenomic Condition: Ethics, Justice, and Knowledge after the Genome*. Chicago: The University of Chicago Press.

Roberts, S.T. (2019). *Behind the Screen: Content Moderation in the Shadows of Social Media*. New Haven: Yale University Press.

Saini, A. (2020). *Superior: The Return of Race Science*. New York: Penguin Random House.

TallBear, K. (2013). *Native American DNA: Tribal Belonging and the False Promise of Genetic Science*. Minneapolis: University of Minnesota Press.

Wachter-Boettcher, S. (2018). *Technically Wrong: Sexist Apps, Biased Algorithms, and other Threats of Toxic Tech*. New York: W.W. Norton.

Watters, A. (2021). *Teaching Machines: The History of Personalized Learning*. Cambridge: MIT Press.

Williamson, B., (2017). *Big Data in Education: The digital future of learning, policy, and practice*. London: Sage.

Williamson, B., & Hogan, A.(2021). *Pandemic Privatisation in Higher Education: Edtech and University Reform*. Brussels, Belgium: Education International.

Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power.* New York: Public Affairs.

Why Data Anonymization Doesn't Protect Privacy

Cox, J. (July 14, 2021). Inside the Industry That Unmasks People at Scale. *Vice.*

de Montjoye, Y.A., Radaelli, L., Singh, V. K., & Pentland, A. S. (2015). Unique in the shopping mall: On the reidentifiability of credit card metadata. *Science,* 347 (6221), 536-539.

de Montjoye, Y.A., Hidalgo, C., Verleysen, M. et al. (2013). Unique in the Crowd: The privacy bounds of human mobility. *Scientific Reports, 3,* 1376. https://doi.org/10.1038/srep01376

Thomson, S.A., & Warzel, C. (December 19, 2019). Twelve Million Phones, One Dataset, Zero Privacy. *New York Times.*

Harrison, S. (March 24, 2020). When Is Anonymous Not Really Anonymous? Anonymization of data isn't enough to guarantee privacy. *The Markup.*

Katyal, N. (February 10, 2021). Data anonymization is no silver bullet to preserve data privacy. *Dataquest.*

Lomas, N. (July 24, 2019). Researchers spotlight the lie of 'anonymous' data. *TechCrunch.*

Ohm, P. (2010). Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization. UCLA Law Review. *UCLA Law Review, 57,* 1701-1777. University of Colorado Law Legal Studies Research Paper No. 9-12.

Rocher, L., Hendrickz, J.M. & de Montjoye, YA. (2019). Estimating the success of re-identifications in incomplete datasets using generative models. *Nature Communications, 10, 3069.*

Canvas (Instructure) Learning Management System related research and articles

Canvas LMS. (August 29, 2017). *"The Future of Canvas: Artificial Intelligence and Behavioral Economics"* [Youtube Video from *InstructureCon* conference, Keystone, CO, July 2017. Note: This video documents Canvas Labs' plans for use of behavioral/metadata and use of "nudge" experiments with college and grade-school-aged youth. For Q/A session (non)response on equity/diversity, see timestamp 33:32].

Kelley, J., Budington, B, & Cope, S. (April 15, 2021). Proctoring Tools and Dragnet Investigations Rob Students of Due Process. *Electronic Frontier Foundation.*

Kranz, L. (April 15, 2021). Cheating allegations engulf Dartmouth medical school. *MSNnews.com.*

Mangan, K. (June 14, 2021). Dartmouth Dropped a Shaky Cheating Investigation, but Concerns Over Digital Surveillance Remain. *Chronicle of Higher Education.*

Marachi, R. & Quill, L. (2020). The case of Canvas: Longitudinal datafication through learning management systems [Special Issue on datafication of teaching in higher education]. *Teaching in Higher Education: Critical Perspectives, 25*(4), 418-434. Also available here.

Marachi, R., & Quill, L. (March 20, 2020). As schooling rapidly moves online, across the country, concerns rise about student data privacy. *The Washington Post.*

Paris, B., Reynolds, R., & McGowan, C. (April 22, 2021). Platforms like Canvas play fast and loose with students' data: Many universities have yet to reckon with the data justice implications of learning technologies - now, with

online learning the norm, these practices deserve more scrutiny. *The Nation.*

Young, J. (February 18, 2020) As Instructure Changes Ownership, Academics Worry Whether Student Data Will Be Protected. *EdSurge*.

Young, J. (June 26, 2020). Researchers Raise Concerns about Algorithmic Bias in Online Tools, *EdSurge*.

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To add resources to the list, please send recommendations to Dr. Roxana Marachi at roxana.marachi@sjsu.edu.