LMC 6650: Project Studio - Learning and Speculating About Tech Companies (Richmond Wong)

Fall 2024
3 Units

Class meetings
Tuesdays, 12:30-3:15pm
TSRB 209

Instructor
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he/him/his

Office ("Drop-In") Hours
Link on Canvas to sign up; otherwise by appointment

Course Description
How can we learn more about what goes on inside big tech companies from the outside; what are the experiences of tech workers; and how does that effect how tech companies about and address ethical issues? In this project studio, students will work on a project team that investigates one or more of these questions, using a range of design, qualitative, and other research methods. Some likely project areas include:

(1) Conducting a literature review about the social and organizational barriers to addressing tech ethics in large companies, and creating a set of scenarios that can depict and educate others about those barriers
(2) Looking at tech companies' financial documents and regulatory filings and seeing what information we can learn about them. (For instance, what possible futures and risks do they imagine in these documents?)
(3) Looking at the spaces/places of large tech company offices in Atlanta. Where are they located? How do these spaces connect to different forms of transit? What are the histories of these locations? Where do workers travel from, and what are their modes of transportation?
(4) Analyzing how companies talk about responsible/ethical AI in various types of documents and public comments that they have made

Based on student interests, we will divide the class into 4 project groups.

Outcomes: Ideally each group will make something that can be shared at the something you can share at DM Demo Day or GVU showcase – this could be a visualization, interactive demo, set of speculative designs, a book of scenarios and drawings, a poster of interview research findings, etc.

Materials and Course Technology
- All required readings will be available as PDFs through Canvas or the Georgia Tech library
- We will have a Teams group that you can use to coordinate and work on projects, as well as shared documents to help brainstorm
- (To be finalized) Groups will likely be able to request approximately $60 worth of materials for their project through a written application process justifying the need for materials, and subject to approval from Professor Wong and Georgia Tech

Course Objectives and Learning Outcomes

By the end of this course, students will:

- Understand the organizational aspects of design and ethics work
- Have experience using different research methods to study technology companies' practices
- Communicate their research findings through oral, written, or visual presentations

Course Schedule

Any assigned readings should be read *before* that class session. We will discuss readings during the class session.

The readings and course schedule are subject to change. Please check Canvas for the most up-to-date information!

PART 1: BACKGROUND

1. **Aug 20** – Introductions, Introduce some of the potential projects, Start to brainstorm methods and outputs:
    a. Organizational barriers to addressing ethics (mainly lit review + synthesizing those through scenarios and design fictions)
    b. Speculating based on financial documents (look at corporate documents that imagine future business "Risks"—like a new law regulating AI—and then try to imagine that world
    c. Responsible/Ethical AI Document analysis – looking at a range of corporate documents to understand how companies are thinking about responsible/ethical AI
    d. Commuting and transit interviews/mapping – understanding the physical locations of tech company offices, and how their workers get there.
2. **Aug 27:** Different Ways of Understanding Tech Companies Through Documents
    a. Readings:
        i. US Securities and Exchange Commission. 2021. SEC.gov | How to Read a 10-K/10-Q. Retrieved August 17, 2024 from https://www.sec.gov/resources-for-investors/investor-alerts-bulletins/how-read-10-k10-q
        ii. Richmond Y. Wong and Andrew Chong. 2024. Representing Privacy Legislation as Business Risks: How Technology Companies Discuss the GDPR and CCPA in Investment Risk Disclosures. White Paper. https://cltc.berkeley.edu/wp-content/uploads/2024/01/Representing_Privacy_Legislation_as_Business_Risks.pdf (Can focus on pages 3-31)
        iii. Nicole Chi, Emma Lurie, and Deirdre K. Mulligan. 2021. Reconfiguring Diversity and Inclusion for AI Ethics. In Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society (AIES '21). Association for Computing Machinery, New York, NY, USA, 447–457. https://doi.org/10.1145/3461702.3462622
        iv. Jordan Famularo. 2022. Sustainability Reporting on Digital Harm: State of Play and Future Agenda. UC Berkeley Center for Long-Term Cybersecurity. Retrieved from https://cltc.berkeley.edu/publication/sustainability-reporting-on-digital-harm-state-of-play-and-future-agenda/
    b. Activities
        i. Let's look at a large tech company's annual shareholder report, public blog comments, and/or other statements, and see what we can learn from them
3. **Sept 3**: Tech Companies and Spaces/Places
    a. Readings:

        i. Kristin Miller, 2015, Google Bus - https://critical-sustainabilities.ucsc.edu/google-bus/

        ii. Kristin Miller; Mapping Our Disconnect: On the transit system we have, not the one we might have had, or wish we had. Boom 1 June 2014; 4 (2): 62–67. doi: https://doi.org/10.1525/boom.2014.4.2.62

        iii. Vertesi, J. (2008). Mind the Gap: The London Underground Map and Users' Representations of Urban Space. Social Studies of Science, 38(1), 7-33. https://doi.org/10.1177/0306312707084153

        iv. Jo Lee and Tim Ingold. 2006. Fieldwork on Foot: Perceiving, Routing, Socializing. In *Locating the Field*, Simon Coleman and Peter Collins (eds.). Routledge. https://doi.org/10.4324/9781003085904-4

  b. Activities

        i. Mapping tech company offices in Atlanta https://www.google.com/maps/d/edit?mid=1toJS0kyXgo2y37eWR-Bqrve2x9AYIOE&usp=sharing

        ii. Brainstorming different ways to study and investigate these places

4. **Sept 10:** Organizational Aspects of Tech Company Ethics; Speculation

  a. Readings:

        i. Danny Spitzberg. 2023. Creating Standards: Our Secret Job as Researchers. interactions 30, 5 (September - October 2023), 39–43. https://doi.org/10.1145/3615670

        ii. Richmond Y. Wong. 2021. Tactics of Soft Resistance in User Experience Professionals' Values Work. Proc. ACM Hum.-Comput. Interact. 5, CSCW2, Article 355 (October 2021), 28 pages. https://doi.org/10.1145/3479499

        iii. Richmond Y. Wong. 2021. Using Design Fiction Memos to Analyze UX Professionals' Values Work Practices: A Case Study Bridging Ethnographic and Design Futuring Methods. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 93, 1–18. https://doi.org/10.1145/3411764.3445709

  b. Activities

        i. Stakeholder and levers mapping

        ii. Organizational speculative design activities based on the stakeholder map

5. Sept 17: Recap of methods for exploring tech companies

  a. Readings:

        i. (To be finalized): Khovanskaya et al. CHI 2025 submission

  b. Possible virtual guest, Vera Khovanskaya

  c. Activities

        i. Discuss final project requirements

        ii. Start to see what people's interests are across the 4 projects

        iii. If people know what groups they want to be in already we can just have everyone split up; otherwise we can do some brainstorming as a large group

        iv. Project admin if time

PART 2: WORKING ON PROJECTS

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6. Sept 24: Mini-group presentations

  a. Groups should be set at this stage. Each group should give a short brainstorming talk to the group for feedback.

  b. Project admin

      i. Setting up a folder and ongoing notes document for each group
      ii. Adding people to Zotero
      iii. Annotated bibliographies
      iv. CHI Late Breaking Work template
      v. IRB training and approval if needed

Sep 27: Written Project Brainstorm Due

7. Oct 1: Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
    b. Second half: Richmond meets for 30 minutes each with **Groups 1 & 2**. Groups 3 & 4 can work together on their own to make progress.
8. Oct 8: Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
    b. Second half: Richmond meets for 30 minutes each with **Groups 3 & 4**. Groups 1 & 2 can work together on their own to make progress.

Oct 15: No class, Fall Break

Oct 18: Mid-Course Reflection Due

9. Oct 22: Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
    b. Second half: Richmond meets for 30 minutes each with **Groups 1 & 2.** Groups 3 & 4 can work together on their own to make progress.
10. Oct 29: Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
    b. Second half: Richmond meets for 30 minutes each with **Groups 3 & 4**. Groups 1 & 2 can work together on their own to make progress.
11. Nov 5: Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
        i. Going over the template
    b. Second half: Richmond meets for 30 minutes each with **Groups 1 & 2.** Groups 3 & 4 can work together on their own to make progress.

Nov 12: Likely no class, Richmond likely away. (Maybe we can do a guest thing?)

12. **Nov 19:** Presentations and Work time
    a. First half: All groups give a short update to the class on their project (10 minute)
    b. Second half: Richmond meets for 30 minutes each with **Groups 1 & 2.** Groups 3 & 4 can work together on their own to make progress.
13. **Nov 26**: Future Directions Brainstorming [Thanksgiving week – I will be here, but won't count attendance this week]
    a. All groups should have a rough draft of their final products for the semester submitted for asynchronous feedback
    b. Discuss future directions the projects could go if students are interested
14. **Dec 3:** Final Presentations by Each Group

Dec 12, 2:10pm: Submit final project documentation on Canvas. (No in-person final).

Grading

Mid-Course Written Reflection (20%). This is a short individual paper based on your research work. The organization of the paper is up to you, but it should address the following points:

- Describe your project that you have been working on so far this semester.
- Reflect on what you have learned so far this semester. What has been new or surprising?
- Reflect on any challenges you have encountered
- What questions or skills do you hope to explore in the rest of the semester?
- Up to 1500 words (not counting citations or captions)
- Submit as a PDF

Presentations (15%). Students will regularly present on their project progress to the class during the semester.

Class Participation & Attendance (15%). Attendance in class is required, and students are expected to participate throughout the class (whether in person or virtually on Teams).

Final Project (50%). The final project is done as a group and will be broken down into several parts:

- Initial brainstorm (10%) – a set of ideas of what your group project might be
- Contribution reflection (10%) – you will provide reflections on your contributions and your group members' contributions to the final project; significantly low contributions can negatively affect your grade.
- Final Written Component (15%) – A final paper written by the group that should be written in the CHI Late Breaking Work format (https://chi2025.acm.org/for-authors/late-breaking-work/), up to 8 pages excluding references. The final paper should include:
  - An Abstract
  - Problem statement/research question
  - Related work
  - Explanation of your approach, methods, and (if applicable) design work
  - Summary of your initial findings
  - Future directions or new questions this project raised
- Final Artifact Component (15%) – We will discuss what an appropriate artifact is for each project. This could include a visualization, a set of designs, an interactive website, a toolkit, a research poster, etc.

ChatGPT/Generative AI Tools Policy

Assignments are a form of communication. The assignments in this class are meant to be opportunities for you to show me how well you're meeting the course objectives (of being able to analyze, critically think, or apply new skills). And the assignments provide an opportunity to evaluate how well you are meeting those course objectives, so that I can give you feedback to improve, and so I can adjust my teaching as we go along. Using automated tools to do most of the assignment for you break that feedback loop – instead of these assignments being a communication mechanism between us, they just become more busy work that doesn't mean anything (which none of us should want!)

We will broadly follow the ACM Policy's on generative AI software tools (https://www.acm.org/publications/policies/frequently-asked-questions), meaning that you can use generative AI tools subject to certain requirements and caveats.

- You cannot plagiarize, misrepresent, or falsify content (textual, visual, or otherwise)

- The resulting work you create is an accurate representation of the authors' underlying work and novel intellectual contributions and is not primarily the result of the tool's generative capabilities. (You cannot have the AI generate its own response to a class prompt and turn that in!)
- You accept responsibility for the veracity and correctness of material you turn in

If you use generative AI software tools, you will need to disclose its use as following in an appendix or footnote:
- For the **creation of any content** (textual, visual, or otherwise)**,** you must indicate:
  - Which section(s) were created by generative AI
  - What tool you used and what tool version
  - The text of your input prompts
  - Describe any post-generation editing you did (such as re-phrasing the generated text)
  - (For small amounts of generated text – a sentence or less – you do not need to share the input prompts).
- For the **editing of any human-created content**, you must indicate:
  - Which section(s) were edited by generative AI

In general, you will not be penalized for using ChatGPT and generative AI tools if you disclose how you used it. (however, low quality assignments will still receive lower grades). However, writing a false statement about your use of ChatGPT & generative AI tools, or turning in a document that was completely written by ChatGPT or an generative AI tool are likely violations of the academic honor code (plagiarism, false claims of performance, deliberate falsification), and will result in a 0 grade and a possible referral to the Office of Student Integrity.

Course Expectations and Guidelines

A note on COVID-19 and Illness
I will strive to create a stimulating learning environment, although there may be uncertainties or complications that arise during the course that will require flexibility and mutual trust. Do not hesitate to contact me if there is anything you would like to discuss at any point during the course. Please communicate with me if a situation arises that will require flexibility and we can adjust as needed. If you feel ill, please stay home if you feel sick, to protect yourself and others.

For some in-person class meetings, I may choose to wear a high-quality N/KN-95 mask and at all class sessions I will have additional masks available should anyone want to use one. In addition, if interested, students can contact Stamps Health Services for information about scheduling a Covid-19 vaccine and/or booster.

Due Dates and Late Policy
Most assignments will be due at 11:59pm on their due date. For submissions after this time, one half point will be deducted for every late day (0.5 point for up to 24 hours late, 1 point for up to 48 hours, etc), up until half credit.

Academic Integrity
Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards and to follow the Georgia Tech Academic Honor Code.

Accommodations
If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or http://disabilityservices.gatech.edu/, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Attendance
Participation in this class is important so that we can explore and understand the readings together. Your attendance is important; however I acknowledge we live in uncertain times. Any absences due to health reasons and personal or family emergencies will be excused. Stay home if you feel sick, to protect yourself and others. Please communicate with me in advance if you will be missing a class.

2 unexcused absences are allowed (you do not need to provide any specific reason – but it may include a job/internship interview, needing to do a presentation for another project, or other activities that conflict with class). However, additional unexcused absences will lower the student's overall grade by 1% each time. If you feel that you are falling behind due to an illness, emergency, or other reason, please come see me and we can make a plan for alternate arrangements.

Student-Faculty Expectations Agreement
At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See http://www.catalog.gatech.edu/rules/22/ for an articulation of some basic expectation that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek.

Statement on Inclusivity and Diversity
The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society.

Additional Resources
If you are experiencing anxiety or depression or a medical, personal, or family crisis, or if you just feel overwhelmed, please do not hesitate to reach out for help. Everybody needs help sometimes, and college can be a personally challenging time. You are not alone, and many of us are available to be sympathetic listeners and to share our own strategies for coping with stressful situations. In addition, professional counselors and medical practitioners have expertise that can be very helpful. The Dean of Students has a list of services (see https://studentlife.gatech.edu/content/get-help-now). If you are the victim of sexual misconduct or harassment, resources are listed at: https://diversity.gatech.edu/equity-compliance/reporting-options/i-want-report-incident. VOICE Advocates also serve as confidential resources for victim-survivors (speaking to them does not trigger an official reporting process): https://wellnesscenter.gatech.edu/voice

Additional Readings

Links to readings should work from an on-campus internet connection or when using the library VPN. If you are off campus, you may need to login to the journal article websites using your GT credentials.

General Methods and Theories
- STAR, S. L. (1999). The Ethnography of Infrastructure. American Behavioral Scientist, 43(3), 377-391. https://doi.org/10.1177/00027649921955326

Design Speculation
- Richmond Y. Wong, Vera Khovanskaya, Sarah E. Fox, Nick Merrill, and Phoebe Sengers. 2020. Infrastructural Speculations: Tactics for Designing and Interrogating Lifeworlds. In Proceedings of the 2020 CHI Conference

on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376515

HCI Lit Review Examples
- Carl DiSalvo, Phoebe Sengers, and Hrönn Brynjarsdóttir. 2010. Mapping the landscape of sustainable HCI. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '10). Association for Computing Machinery, New York, NY, USA, 1975–1984. https://doi.org/10.1145/1753326.1753625
- Richmond Y. Wong and Deirdre K. Mulligan. 2019. Bringing Design to the Privacy Table: Broadening "Design" in "Privacy by Design" Through the Lens of HCI. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for Computing Machinery, New York, NY, USA, Paper 262, 1–17. https://doi.org/10.1145/3290605.3300492

Understanding Corporate Documents & Corporate Behaviors
- Richmond Y. Wong, Andrew Chong, and R. Cooper Aspegren. 2023. Privacy Legislation as Business Risks: How GDPR and CCPA are Represented in Technology Companies' Investment Risk Disclosures. Proc. ACM Hum.-Comput. Interact. 7, CSCW1, Article 82 (April 2023), 26 pages. https://doi.org/10.1145/3579515
- Nicole Chi, Emma Lurie, and Deirdre K. Mulligan. 2021. Reconfiguring Diversity and Inclusion for AI Ethics. In Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society (AIES '21). Association for Computing Machinery, New York, NY, USA, 447–457. https://doi.org/10.1145/3461702.3462622
- Richmond Y. Wong and Steven J. Jackson. 2015. Wireless Visions: Infrastructure, Imagination, and US Spectrum Policy. In Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15). Association for Computing Machinery, New York, NY, USA, 105–115. https://doi.org/10.1145/2675133.2675229
- Nora McDonald and Andrea Forte. 2021. Powerful Privacy Norms in Social Network Discourse. Proc. ACM Hum.-Comput. Interact. 5, CSCW2, Article 421 (October 2021), 27 pages. https://doi.org/10.1145/3479565
- Ellie Harmon and Melissa Mazmanian. 2013. Stories of the Smartphone in everyday discourse: conflict, tension & instability. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13). Association for Computing Machinery, New York, NY, USA, 1051–1060. https://doi.org/10.1145/2470654.2466134
- Researching Corporations and Their Owners. Retrieved August 6, 2024 from https://gijn.org/resource/researching-corporations-and-their-owners/
- Jill E. Fisch. 2020. Private Ordering and the Role of Shareholder Agreements. SSRN Journal (2020). https://doi.org/10.2139/ssrn.3667202
- Jordan Famularo. 2023. Future Directions in Corporate Disclosure on Digital Responsibility. UC Berkeley Center for Long-Term Cybersecurity. Retrieved from https://cltc.berkeley.edu/wp-content/uploads/2023/05/Future_Directions_in_Corporate_Disclosure_on_Digital_Responsibility.pdf

Organizational Aspects of Tech Ethics Work
- Morgan Klaus Scheuerman. 2024. In the Walled Garden: Challenges and Opportunities for Research on the Practices of the AI Tech Industry. In Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency (FAccT '24). Association for Computing Machinery, New York, NY, USA, 456–466. https://doi.org/10.1145/3630106.3658918
- Hoffmann, A. L. (2021). Terms of inclusion: Data, discourse, violence. New Media & Society, 23(12), 3539-3556. https://doi.org/10.1177/1461444820958725
- Lucas Colusso, Cynthia L. Bennett, Pari Gabriel, and Daniela K. Rosner. 2019. Design and Diversity? Speculations on What Could Go Wrong. In Proceedings of the 2019 on Designing Interactive Systems Conference (DIS '19). Association for Computing Machinery, New York, NY, USA, 1405–1413. https://doi.org/10.1145/3322276.3323690

- David Gray Widder. 2024. Ethical Tech Begins with Ethical Workplaces: Power Dynamics in Companies and Universities. XRDS 30, 4 (Summer 2024), 17–21. https://doi.org/10.1145/3665593
- David Gray Widder, Laura Dabbish, James Herbsleb, and Nikolas Martelaro. 2024. Power and Play: Investigating "License to Critique" in Teams' AI Ethics Discussions. https://doi.org/10.48550/arXiv.2403.19049
- David Gray Widder, Derrick Zhen, Laura Dabbish, and James Herbsleb. 2023. It's about power: What ethical concerns do software engineers have, and what do they (feel they can) do about them? In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT '23). Association for Computing Machinery, New York, NY, USA, 467–479. https://doi.org/10.1145/3593013.3594012
- Widder, D. G., & Nafus, D. (2023). Dislocated accountabilities in the "AI supply chain": Modularity and developers' notions of responsibility. Big Data & Society, 10(1). https://doi.org/10.1177/20539517231177620
- Colin M. Gray, Ritika Gairola, Nayah Boucaud, Maliha Hashmi, Shruthi Sai Chivukula, Ambika R Menon, and Ja-Nae Duane. 2024. Legal Trouble?: UX Practitioners' Engagement with Law and Regulation. In Companion Publication of the 2024 ACM Designing Interactive Systems Conference (DIS '24 Companion). Association for Computing Machinery, New York, NY, USA, 106–110. https://doi.org/10.1145/3656156.3663698
- Shruthi Sai Chivukula, Aiza Hasib, Ziqing Li, Jingle Chen, and Colin M. Gray. 2021. Identity Claims that Underlie Ethical Awareness and Action. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 295, 1–13. https://doi.org/10.1145/3411764.3445375
- Shruthi Sai Chivukula, Chris Rhys Watkins, Rhea Manocha, Jingle Chen, and Colin M. Gray. 2020. Dimensions of UX Practice that Shape Ethical Awareness. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–13. https://doi.org/10.1145/3313831.3376459
- Colin M. Gray and Shruthi Sai Chivukula. 2019. Ethical Mediation in UX Practice. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for Computing Machinery, New York, NY, USA, Paper 178, 1–11. https://doi.org/10.1145/3290605.3300408
- Sanna J. Ali, Angèle Christin, Andrew Smart, and Riitta Katila. 2023. Walking the Walk of AI Ethics: Organizational Challenges and the Individualization of Risk among Ethics Entrepreneurs. In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT '23). Association for Computing Machinery, New York, NY, USA, 217–226. https://doi.org/10.1145/3593013.3593990
- Metcalf, J., Moss, E., & boyd, danah (2019). Owning Ethics: Corporate Logics, Silicon Valley, and the Institutionalization of Ethics. Social Research: An International Quarterly 86(2), 449-476. https://dx.doi.org/10.1353/sor.2019.0022.
- Richmond Y. Wong. 2021. Using Design Fiction Memos to Analyze UX Professionals' Values Work Practices: A Case Study Bridging Ethnographic and Design Futuring Methods. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 93, 1–18. https://doi.org/10.1145/3411764.3445709
- Sharon Lindberg, Petter Karlström, and Sirkku Männikkö Barbutiu. 2021. Design Ethics in Practice - Points of Departure. Proc. ACM Hum.-Comput. Interact. 5, CSCW1, Article 130 (April 2021), 19 pages. https://doi.org/10.1145/3449204
- Kristina Popova, Clàudia Figueras, Kristina Höök, and Airi Lampinen. 2024. Who Should Act? Distancing and Vulnerability in Technology Practitioners' Accounts of Ethical Responsibility. Proc. ACM Hum.-Comput. Interact. 8, CSCW1, Article 157 (April 2024), 27 pages. https://doi.org/10.1145/3637434
- Qiaosi Wang, Michael Madaio, Shaun Kane, Shivani Kapania, Michael Terry, and Lauren Wilcox. 2023. Designing Responsible AI: Adaptations of UX Practice to Meet Responsible AI Challenges. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 249, 1–16. https://doi.org/10.1145/3544548.3581278

- Michael Madaio, Lisa Egede, Hariharan Subramonyam, Jennifer Wortman Vaughan, and Hanna Wallach. 2022. Assessing the Fairness of AI Systems: AI Practitioners' Processes, Challenges, and Needs for Support. Proc. ACM Hum.-Comput. Interact. 6, CSCW1, Article 52 (April 2022), 26 pages. https://doi.org/10.1145/3512899
- Bogdana Rakova, Jingying Yang, Henriette Cramer, and Rumman Chowdhury. 2021. Where Responsible AI meets Reality: Practitioner Perspectives on Enablers for Shifting Organizational Practices. Proc. ACM Hum.-Comput. Interact. 5, CSCW1, Article 7 (April 2021), 23 pages. https://doi.org/10.1145/3449081
- Michael A. Madaio, Luke Stark, Jennifer Wortman Vaughan, and Hanna Wallach. 2020. Co-Designing Checklists to Understand Organizational Challenges and Opportunities around Fairness in AI. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–14. https://doi.org/10.1145/3313831.3376445
- Kenneth Holstein, Jennifer Wortman Vaughan, Hal Daumé, Miro Dudik, and Hanna Wallach. 2019. Improving Fairness in Machine Learning Systems: What Do Industry Practitioners Need? In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for Computing Machinery, New York, NY, USA, Paper 600, 1–16. https://doi.org/10.1145/3290605.3300830
- Abbe Mowshowitz. 1978. Computers and ethical judgment in organizations. In Proceedings of the 1978 annual conference - Volume 2 (ACM '78). Association for Computing Machinery, New York, NY, USA, 675–683. https://doi.org/10.1145/800178.810110
- Wesley Hanwen Deng, Nur Yildirim, Monica Chang, Motahhare Eslami, Kenneth Holstein, and Michael Madaio. 2023. Investigating Practices and Opportunities for Cross-functional Collaboration around AI Fairness in Industry Practice. In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT '23). Association for Computing Machinery, New York, NY, USA, 705–716. https://doi.org/10.1145/3593013.3594037

Transit, Maps, and Places of Tech Companies
- Kristin Miller, 2014, Mapping our Disconnect, Boom: https://boomcalifornia.org/2014/07/15/mapping-our-disconnect/
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