LMC 6650 Project Studio: Creating Toolkits & Engagements with Social Values during the Design of Technology in Organizations

Fall 2025 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

There are many toolkits that are meant to help designers and engineers better design technologies in ways that align with ethical goals or social values (such as privacy, fairness, accessibility, security, etc.)—but often are not used. Often this is due to designers and engineers not having the power to make product decisions, and companies may have a financial incentive to ignore ethical issues.

Addressing social values and ethical issues in practice thus requires a lot of social and organizational work. For instance, instead of directly making an alternate design decision for an ethical reason, a UX professional might instead: try to rhetorically convince a decisionmaker to make another choice, create new resources to educate others, try to change organizational processes to standardize how these problems are addressed, find external laws or standards to support their argument, etc. We do not have many toolkits that address these practices! This project studio will focus on creating tools to help support these practices.

Students in this project studio will work towards creating a toolkit that answers one of the following questions:

- (1) How can we *re-design* existing values and ethics toolkits to better account for social and organizational challenges?
- (2) How can we create new toolkits or resources that help address social and organizational challenges?

The half of the class will focus on readings and looking at existing values and ethics tools, so that we have a shared understanding about "values in design." We will also focus on learning about the social and organizational challenges to addressing values and ethics within large tech companies. While we have some hands-on activities with toolkits, we will spend about *half our time in seminar-style, where active contributions to the group discussion is expected!* The second half of the class will focus on developing our own new toolkits, and looking at examples of other mechanisms to create ethical change beyond making product design decisions.

Outcomes: Students will work towards making a toolkit or other type of artifact that helps surface or address social values during the design of technologies. Optionally these toolkits or artifacts can be shared at <u>DM Demo Day</u> or IPAT <u>GVU showcase</u>. Those who are interested in academic research publications should reach out and let me know as soon as possible (this is not guaranteed, but if this is something you are interested in, it would be helpful to know sooner, rather than later. The <u>CHI 2026</u> <u>poster deadline</u> in January 2026 is one possibility for a publication opportunity).

Materials and Course Technology

- All required readings will be available as PDFs through Canvas, Perusall, or the Georgia Tech library
- We will have a Teams group for this class

Course Objectives and Learning Outcomes

By the end of this course, students will:

- Understand how technologies embed or promote social values
- Understand the range of levers that can be used to change those social values
- Have experience creating a toolkit or artifact related to social values and technology
- Communicate their research findings through oral, written, or visual presentations

Course Schedule

PART 1: BACKGROUND

If we care about ethics and social values, what are the different things we can do to try to influence that in design?

Week 1: August 19 – Asynchronous (Richmond is at a conference)

Readings:

- Look over the course syllabus
- Try out the sample Persuall assignment (we will be using this during the rest of the semester)

Class activities:

- Look around on this website of Ethics-Focused methods for design (maintained by a research lab at Indiana University): https://everydayethics.uxp2.com/methods/#all
- Try out one or two of the activities on the website
 - Do it as best you can some activities may require materials that you don't have, or a large group of people to do it. If it seems impossible to do, you might consider trying out a different one.
- Answer the following questions about your experience. Submit your reflections on Canvas.
 - O Which activity did you try to do?
 - O What do you think was positive or helpful about the activity?
 - What was difficult, challenging, or hard about the activity?
 - Who do you think is the intended user of this activity/method? How well do you think they would be able to use it?

- What do you think is the intended "theory of change" behind this activity or method? In other words, how is this method supposed to lead to a (in an ideal world)?
- What are some potential challenges or barriers to actually creating that change?
- Add any additional thoughts about your experience.

Week 2: August 26 – Leverage Points in a System

Readings:

- Ehrlichman, David. "Identifying Leverage Points in a System." Converge Perspectives, September 22, 2021. https://medium.com/converge-perspectives/identifying-leverage-points-in-a-system-3b917f70ab13.
- Richmond Y. Wong. 2025. Towards Creating Infrastructures for Values and Ethics Work in the Production of Software Technologies. In Proceedings of the sixth decennial Aarhus conference: Computing X Crisis (AAR '25). Association for Computing Machinery, New York, NY, USA, 13–26. https://doi.org/10.1145/3744169.3744171 (Alternate link: https://arxiv.org/abs/2507.11490)

Class activities:

- Class welcome and intro
- Reading Discussion
- Mapping activities to think about leverage points, utilizing the tools you looked at last week

Week 3: September 2 – What is a social value? Privacy as a case study

Readings:

- Malkin, Nathan. "Contextual Integrity, Explained: A More Usable Privacy Definition." IEEE Security & Privacy 21, no. 01 (2023): 58–65. https://doi.org/10.1109/MSEC.2022.3201585.
- Mulligan, Deirdre K., Colin Koopman, and Nick Doty. "Privacy Is an Essentially Contested Concept: A Multi-Dimensional Analytic for Mapping Privacy." *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 374, no. 2083 (2016): 1–17. https://doi.org/10.1098/rsta.2016.0118.

Class activities:

- Reading Discussion
- Looking at privacy conceptualizations from recent news
 (https://docs.google.com/spreadsheets/d/11Ps8ILDHH-vojJGylx7CcaoB5l1mBRHy3OQAgWkm0W4/edit?gid=1436331173#gid=1436331173)
- Look at a conceptions in a privacy tool/checklist for UX researchers: https://www.humanrightscentered.design/s/Secure-UX-Checklist.pdf
- Consider leverage points for privacy based on different conceptions

Week 4: September 9 – Modes of Action

Readings:

- Lessig, Lawrence. "What Things Regulate." In Code Version 2.0. Basic Books, 2006. (Chapter 7, pages 120-137) https://upload.wikimedia.org/wikipedia/commons/f/fd/Code v2.pdf
- Shilton, Katie. "Values Levers: Building Ethics into Design." *Science, Technology, & Human Values* 38, no. 3 (2013): 374–97. https://doi.org/10.1177/0162243912436985.

• Spitzberg, Danny. "Creating Standards: Our Secret Job as Researchers." *Interactions* 30, no. 5 (2023): 39–43. https://doi.org/10.1145/3615670.

Class activities:

- Add to our maps
- Potentially try out some toolkits

Week 5: September 16 – Toolkits and Their Limits

Readings:

- Mattern, Shannon. "Unboxing the Toolkit." Toolshed, July 9, 2021. https://tool-shed.org/unboxing-the-toolkit/.
- Adrian Petterson, Keith Cheng, and Priyank Chandra. 2023. Playing with Power Tools: Design Toolkits and the Framing of Equity. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 392, 1–24. https://doi.org/10.1145/3544548.3581490

Class activities:

- Reading Discussion
- Let's try out some more toolkits and activities

Final Project: Turn in initial brainstorming proposal this week

PART 2: ORGANIZATIONAL REALITIES

What makes addressing values and ethics difficult in organizational practice?

Note: (The activities sessions are tentative; I may try to get a guest speaker to come in to provide some real-life perspective).

Week 6: September 23 – Designers Lack Decision-making Power Readings:

- Wong, Richmond Y. "Tactics of Soft Resistance in User Experience Professionals' Values Work." Proceedings of the ACM on Human-Computer Interaction 5, no. CSCW2 (2021): 28. https://doi.org/10.1145/3479499.
- Deng, Wesley Hanwen, Nur Yildirim, Monica Chang, Motahhare Eslami, Kenneth Holstein, and Michael Madaio. "Investigating Practices and Opportunities for Cross-Functional Collaboration around AI Fairness in Industry Practice." Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (New York, NY, USA), FAccT '23, Association for Computing Machinery, June 12, 2023, 705–16. https://doi.org/10.1145/3593013.3594037.

Optional:

Ali, Sanna J., Angèle Christin, Andrew Smart, and Riitta Katila. "Walking the Walk of Al Ethics:
 Organizational Challenges and the Individualization of Risk among Ethics Entrepreneurs." 2023
 ACM Conference on Fairness, Accountability, and Transparency, ACM, June 12, 2023, 217–26.
 https://doi.org/10.1145/3593013.3593990.

Chivukula, Shruthi Sai, Chris Rhys Watkins, Rhea Manocha, Jingle Chen, and Colin M. Gray.
 "Dimensions of UX Practice That Shape Ethical Awareness." *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA), ACM, April 2020, 1–13. https://doi.org/10.1145/3313831.3376459.

Class Activities:

- Discuss Readings
- Guest speaker, or activity TBD

Week 7: September 30 – Designers' Social Networks and Emotional Work Readings:

- Chivukula, Shruthi Sai, Aiza Hasib, Ziqing Li, Jingle Chen, and Colin M Gray. "Identity Claims That Underlie Ethical Awareness and Action." Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (New York, NY, USA), ACM, May 6, 2021, 1–13. https://doi.org/10.1145/3411764.3445375.
- Rattay, Sonja, Ville Vakkuri, Marco C. Rozendaal, and Irina Shklovski. "'Why Do We Do This?':
 Moral Stress and the Affective Experience of Ethics in Practice." *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA), CHI '25, Association for Computing Machinery, April 25, 2025, 1–15. https://doi.org/10.1145/3706598.3713264.

Optional:

- Pillai, Ajit G., Thida Sachathep, and Naseem Ahmadpour. "Exploring the Experience of Ethical Tensions and the Role of Community in UX Practice." Nordic Human-Computer Interaction Conference, ACM, October 8, 2022, 1–13. https://doi.org/10.1145/3546155.3546683.
- Madaio, Michael, Shivani Kapania, Rida Qadri, et al. "Learning about Responsible AI On-The-Job: Learning Pathways, Orientations, and Aspirations." *Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency* (New York, NY, USA), FAccT '24, Association for Computing Machinery, June 5, 2024, 1544–58. https://doi.org/10.1145/3630106.3658988.
- Solyst, Jaemarie, Lauren Wilcox, and Michael Madaio. "'The Conduit by Which Change Happens': Processes, Barriers, and Support for Interpersonal Learning about Responsible AI." Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (New York, NY, USA), CHI '25, Association for Computing Machinery, April 25, 2025, 1–15. https://doi.org/10.1145/3706598.3714144.
- Su, Norman Makoto, Amanda Lazar, and Lilly Irani. "Critical Affects: Tech Work Emotions Amidst the Techlash." *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW1 (2021): 1–27. https://doi.org/10.1145/3449253.

Class Activities:

- Discuss Readings
- Let's look at the Holistic Security toolkit's approach to self-care: https://holistic-security.tacticaltech.org/

Final project: Turn in updated proposal this week

During this part of the class, we will be developing final projects – each week students will sign up to share/pilot their toolkit activities. If we have time, we can also look at existing toolkits during class and try those out.

Note: the readings, activities, and order of these class sessions may change based on students' project directions and guest speaker availability.

Week 8: October 7 – No Class, Fall Break

Week 9: October 14 - Sharing Progress on Final Projects for Feedback and Testing

Week 10: October 21 – Flex Week

No readings, spend this week focusing on project progress

Week 11: October 28 - Sharing Progress on Final Projects for Feedback and Testing

Week 12: November 4 – Sharing Progress on Final Projects for Feedback and Testing

Week 13: November 11 - Sharing Progress on Final Projects for Feedback and Testing

Week 14: November 18 - Sharing Progress on Final Projects for Feedback and Testing

Week 15: November 25 – Project work time

No readings, class time is to work on final projects

Week 16: December 2 – Final presentations

No readings, we will do short presentations of each others' final projects

Final Materials Due (Online):

Tuesday, Dec 9, 5:30pm (our latest final exam period)

Assignments and Grading:

Major assignments during the class add up to 100 points total:

Perusall Annotations (weeks 2-7): 15%

Participation: 25%

Other write-ups and assignments: 10%

• Final Project: 60%

Perusall Annotations: 15 points

In weeks 2-7, we will use the online tool Perusall, which allows for collective group notes on readings. Because we are trying to read and learn about the readings together, this will help us build a collective understanding of the readings.

You will be expected to annotate readings 5 out of the 6 weeks during this period. Each week is worth 3 points, based on a mix of quantity and quality of engagement with the readings and your peers' comments. Perusall notes should be done before class starts.

Participation: 25 points

Participation can include lots of things – you don't need to have some amazing brilliant insight or even have fully understood all the readings. Bringing up questions, issues, examples, or asking about things that you are unsure about are all ok. In addition to verbal participation in class, you can post questions or share links on Teams. In-class updates on your final project also count towards participation.

Other Write Ups and Assignments: 10 points

Across the semester, I may ask you to submit a short written reflection (usually a couple paragraphs) about a toolkit we tried out and to submit this on Canvas.

Final Project: 60 points

Your final project will be to develop a toolkit or resource that addresses at least one of the studio's core questions:

- (3) How can we *re-design* existing values and ethics toolkits to better account for social and organizational challenges?
- (4) How can we create new toolkits or resources that help address social and organizational challenges?

The final project will be broken down into multiple parts:

- Final project brainstorm (10 points, due date TBD around week 5): what do you think your project will be?
- Final project proposal (10 points, due date TBD around week 7): a more detailed plan about your final project
- Final project presentation (10 points, last day of class): A presentation about your final project
- Final project (30 points, due December 9): Submit your final deliverables and materials online

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. (*This is particularly important to follow if you are interested in publishing your results!*)

- 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 <u>Georgia Tech Academic Honor Code</u>.

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/dean-students/academic-financial-personal-assistance). If you are the victim of sexual misconduct or harassment, resources are listed at: https://eoc.gatech.edu/reporting-options/report-an-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