

Value Lanes- Pedagogical Tool for Developing Ethical Argumentation Skillsets

Sai Shruthi Chivukula | Mid Year Report- Spring 2026



Introduction

[Value Lanes](#) is a dialogue-focused toolkit for design teams and product thinkers who want to sharpen how they argue, persuade, and make value-centered decisions together. The toolkit is designed employing game dynamics and primarily to be used as a pedagogical tool by educators as a skill building support for ethical argumentation. Each kind of play will challenge you to speak and present your argument from different perspectives—user, business, technical, legal, or personal—and navigate complex design trade-offs. Just like, picking a lane or sometimes, multiple! It's fast, collaborative, and helps teams practice saying the quiet parts out loud.

Outcomes from this project are anticipated to be a physical game deck to share with HCI/d program directors and design educators as a pedagogical tool, workshops to employ the game deck, and research articles from the evaluation studies and design research process.

Spring'26-Study Question: *How are design students engaging with the ethical argumentation toolkit?* An evaluative research question to playtest the current format of the card deck with design students to improve designs and collect empirical evidence on the interaction with the toolkit.

Progress made in Spring'26

Participants: We conducted 4 lab protocol studies with two to four participants in each group to playtest resulting in 14 participants. We recruited (through a voluntary participation survey) design students who had experience in designing interactive systems and collaborated with a team of designers in the past or current projects.

Protocol: The value lanes protocol was implemented in a structured session lasting approximately 90–100 minutes. The lab protocol studies are audio and video recorded after participant consent approved by Pratt's IRB. Following a 5-minute introduction, participants engaged in four sequential 15-minute activities using the toolkit cards within a selected design scenario. For any picked design scenario, participants were given to engage to:

- (15 mins) Use the cards to develop an ethical argument using multiple lenses at once (multi-lane)
- (15 mins) Use the cards to develop an ethical argument using one lens at once (single-lane)
- (15 mins) Use the cards to debate to support an assigned lane (debate)
- (15 mins) Use the cards to develop a pitch an ethical argument in a given situation/context (pitch)

The sessions concluded with a 10–20 minute guided reflection assessing the toolkit's role, effectiveness, and areas for improvement.

Next Steps

Analysis: As a team of three (including my graduate assistants), we started to develop analytic memos based on our observations during the lab protocol studies and initial scan through data. Here are couple potential research questions to analyse the data:

- *What were the archetypes of students towards "Value Lanes" as perspectives for their design work?*
- *How does the Value Lanes card deck support designers in selecting and operationalizing values across design scenarios, and how do its features contribute to both ethical argumentation and ideation processes?*
- *What forms of contradiction or conflict emerge in design sessions using the Value Lanes card deck, and how are these reflected in vignette-based analysis of designers' interactions?*

Design Production: Based on the feedback received through the initial studies, we have made a range of design edits and updates to the Value Lanes card deck. We would like to get professional

prints to create the Value Lanes kit for educators to use this ethical argumentation toolkit in their classrooms, with proper instructional material.

Outcomes related to this project till date

- Published paper on the framework of Value-Lanes as a pedagogical framework for design educators: Chivukula, S. S., Bharadwaj, A., & Mehta, S. (2026, May). Value Lanes: A framework to inculcate ethical argumentation skills in design classrooms. *EduCHI 2026: 8th Annual Symposium on HCI Education (EduCHI '26)*. <https://doi.org/10.1145/3803869.3803880>.
- Conducted a workshop in Prof. Monica Maceli's INFO697-Experience Design for the Internet of Things (IOT) class to engage students in value-related concerns within their IOT products.
- Presented a poster at Research Open House at Pratt in April 2026 titled: "Design Better by Arguing Harder" (Attached Below)

Design Better by Arguing Harder

value lanes: a dialogue-focused ethical argumentation toolkit

Dr. Sai Shruthi Chivukula, Research Group Director at Translate Lab & Research Accelerator, ORSP
Aayushi Bharadwaj, Shikha Mehta, Xin Yu Jiang, Graduate Assistants at Translate

Abstract

Argumentation in design is often treated as an informal skill in classrooms, despite its central role in professional practice. To address this gap, we introduce Value Lanes — a structured framework centered around User, Technical, Business, Legal, and Personal perspectives that supports the explicit teaching of ethical argumentation through targeted classroom activities. Together, this approach develops critical, value-driven reasoning and real-time argumentation skills in design.

Conceptualization of Value Lanes

Designers are constantly negotiating competing priorities, whether it is about a user's right to privacy, a business's need for growth, a legal requirement, or a technical constraint. These tensions do not resolve themselves; they get argued through, in meetings, in critiques, in cross-functional discussions.

We re-frame argumentation to problematize a design space and develop a "balanced dialogue" for value-based design products; instead of the framing of argumentation as communication and presentation. We combine this notion with ethical practice in real-world complexity which is a mediation across disciplinary, personal, legal, organizational, and societal values.

Existing ethics-focused methods in design largely address what to design, but offer little scaffolding for how to argue for it. Value Lanes fills that gap by giving students a shared vocabulary and a structured space to practice the kind of value-driven dialogue that defines professional design work. The goal is not to resolve ethical tensions, but to equip designers to engage with them confidently and constructively.



Want to conduct a workshop in your class?

We are still actively continuing to explore how Value Lanes can help students uncover different perspectives, spark conversations, and navigate complex design decisions.

Scan the QR code below to connect with us and explore running a Value Lanes workshop in your class!



What comes with Value Lanes?

a breakdown of the cards

- Design Scenario**
Design Scenario cards present a real-world product or feature, outlining user needs, business goals, and technical limitations. They provide context for broad, product-focused design thinking.
- Value Lane Cards**
Lane cards represent different perspectives, or "lanes," such as user needs, technical needs, business interests, and legal concerns. Each card highlights a specific value within its lane with sample dialogues to spark discussion.
- Debate Advocate**
Debate Advocate cards challenge the conversation by questioning values, delaying progress, or prioritizing outcomes over values. They help players also composed and defend their perspectives under pressure.
- Situation Cards**
Situation cards present a real-world context that shapes how players make their arguments. Each card changes the audience or setting, helping players adapt their tone, language, and priorities.

Anatomy of a Value card:

Values, context, and dialogue cues

Privacy
Ensures users have control and safety of their data.

You can say...

Tie the conversation back to the <value>

Introduce the <value> to an ongoing conversation

Don't think the <value> applies? Contradict with conviction

Spotlight the <value> when it is being overlooked. Mic drop!

Add to conversation
"Now how do we ensure privacy is embedded as a default, so *clearest* users don't have to trade their trust? Should we <propose solution>?"

Agree yourself
"I agree... Privacy is not a feature: it is a fundamental right. If we treat it as an afterthought, we risk designing for *issues*, not *clarity* users *deserve*."

Pushes a conversation
"I get that privacy matters, but too much of it slows things down. Most users just want convenience."

Helping the work? Show the final end
"Would you trust a product that knows more about you than you do?"

How Can Educators use Value Lanes in Design Classrooms

Multi-Lane

Argue from multiple value lanes at once. Weave competing perspectives into one coherent point, even as the conversation shifts.

Advocate based on values you get



Single Lane

Pick one lane and own it. Build a deep, consistent argument from a single perspective and hold your ground.

Advocate from one value perspective



Debate

Team up with one lane, go head-to-head against the rest. Build combined arguments and defend under real pressure.

Debate opposing values



Pitch

Same values, different rooms. Tailor your argument to fit conversations with stakeholders, teammates, or skeptics.

Pitch your arguments across situations



Pratt **ctl**

Acknowledgments:
Dr. Chivukula and Translate Research Group are supported by CTL Faculty Fellowship to explore Value Lanes toolkit with design students and ORSP Research Accelerator Program to fund participant incentives, printing, and dissemination of the card deck in EduCHI 2026 Conference.

Value Lanes © 2026 by Sai Shruthi Chivukula, Shikha Mehta, Aayushi Bharadwaj, Xin Yu Jiang is licensed under CC BY-NC-SA 4.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>