

Welcome to CS181DT!



Please take the cardstock on your table, fold it in half lengthwise, and write your name on one side. This is your **name tag** for the semester.

Your first assignment is to **decorate** your name tag by collaging cool/interesting things you find from the old issues of AI magazine. Cut them out and glue them on!

Logistics can be a bit boring, so feel free to do this throughout the class. Drop off your name tag in the wooden box before you leave.

Let's get making!

Class 1 agenda

- Course overview. What will you learn?
- Class intros
- What is design? What are tools?
- Boring but important logistics
- Personal Making 1 assignment: Hacking Zine

Course overview

Please use the class website!!!

<https://cs.pomona.edu/classes/cs181dt/>

CS181DT Q Search CS181DT Canvas

[Overview](#)
[Schedule](#)
[Instructor](#)
[Grading](#)
[Course Policies](#)
[Assignments](#) ▼

CS181DT: Computational Design Tools

Spring 2024 • Pomona College

Tue/Thu 2:45-4:00pm • Estella 2113

Nothing on this website is final until the first day of class, and even then, we're always evolving.

Overview

What makes a good tool? How should we think about the design and evaluation of computational tools, like Photoshop? What are the advantages and disadvantages of *computational* tools compared to *analog* tools, like a pen?

In this course, students will discuss, critique, and create their own computational tools that support art, creativity, and design. Students will work both individually on weekly making assignments and in a team to create an open-ended software "creativity support tool" through peer critique and testing sessions.

Prerequisites: As this course involves programming an interactive software system, CSCI 062 PO or CSCI 070 HM is required. Students will also complete projects that involve basic electronics and digital fabrication design, but no prior knowledge in those domains is assumed.

Course thirds

1 Making

Make a thing with many tools to establish proficiency at using tools

(Project 1: Design for protest)

- Maker movement
- Design activism
- Analog fabrication
- Digital fabrication
- Creative coding

2 Tools

Make a tool
(Project 2, wizard of oz prototype)

- Brainstorming
- Needfinding
- Low fidelity prototyping
- Software systems design
- Evaluation

3 Craft

Be critical of computational tools
(Project 2, implemented)

- Design noir
- Feminist design
- Materiality
- Art
- Power & politics

And three types of modules for class

1 Lecture

Like right now
(There will be
interactive
components, don't
worry)

2 Seminar

Discussing the
readings: lead
by a pair of
students

(except for this
Thursday's, I'll
lead that)

3 Studio

Other guided
activities, like making
tutorial, project
critique, project work
time

Course intros

Prof. Li

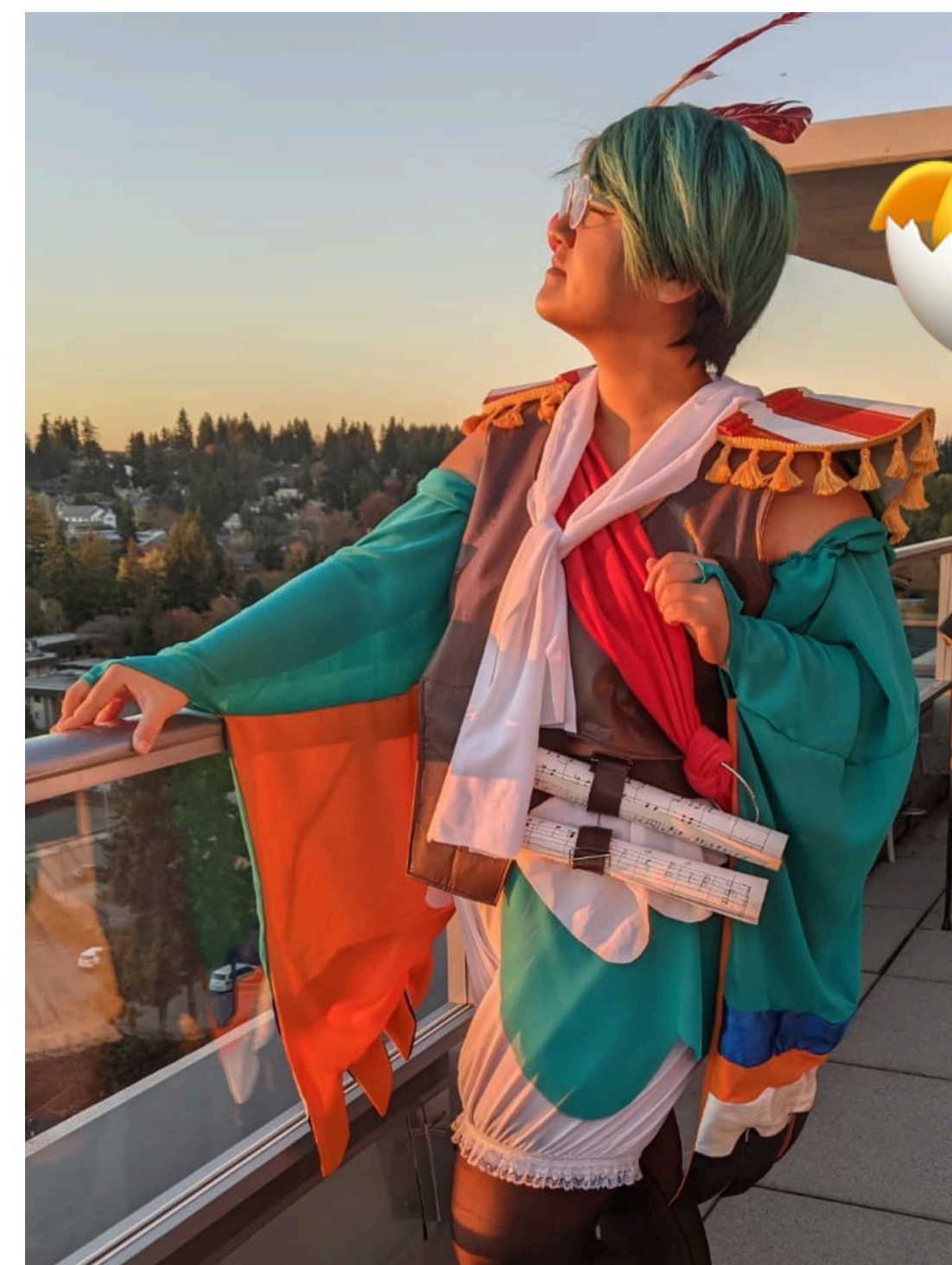
they/them

• jingyi.li@pomona.edu

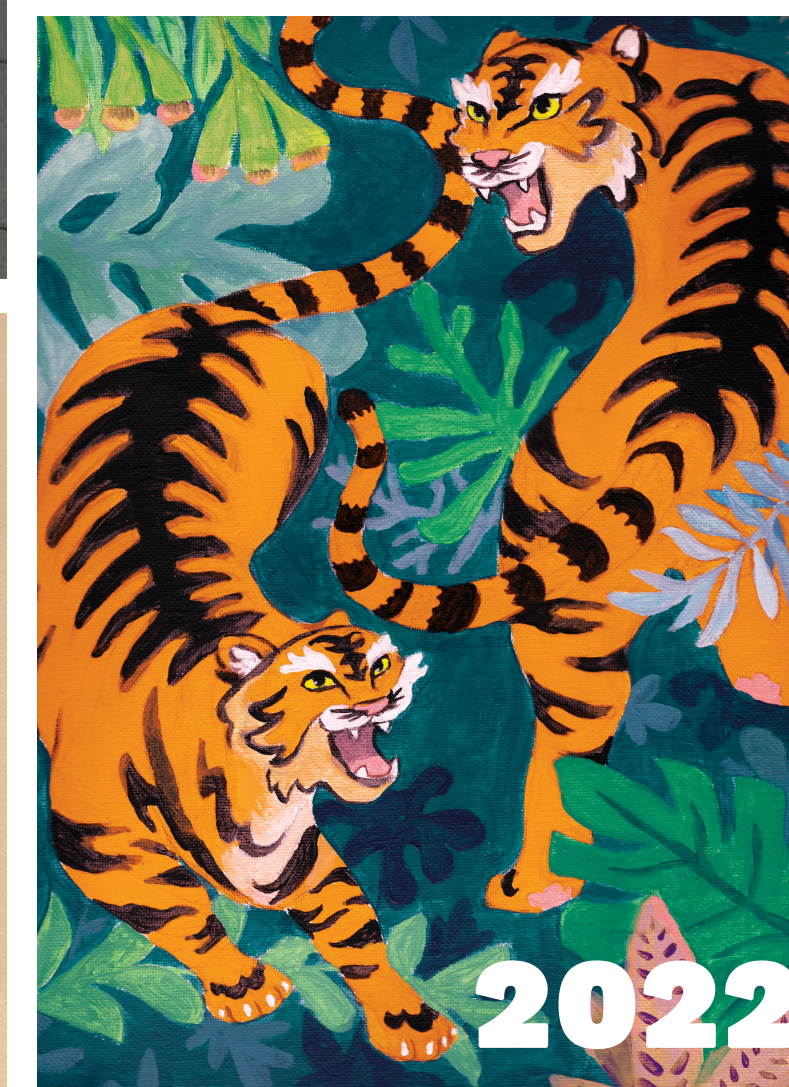
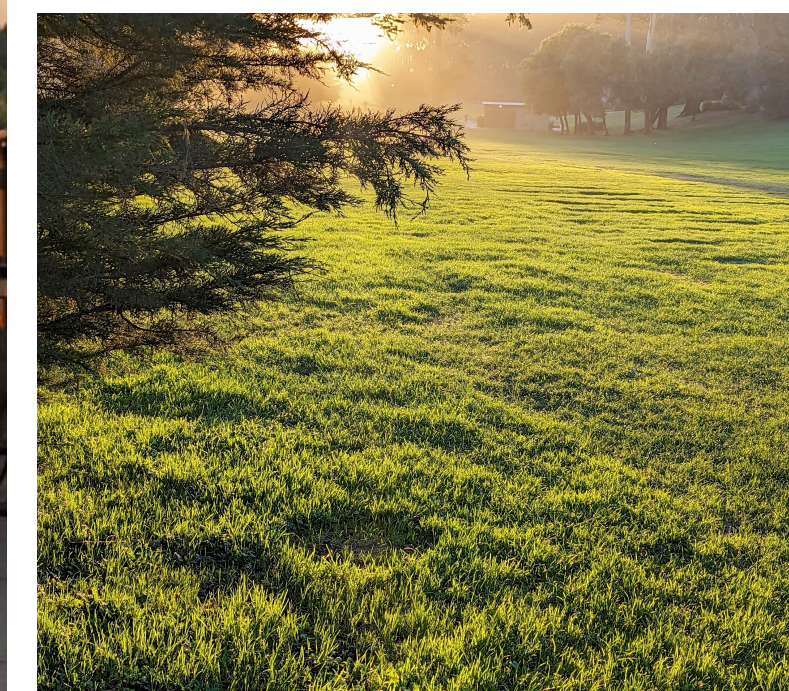
• Edmunds 111

• jingyi.me

- Teaching CS51P and CS181DT
- Research: **human-computer interaction**, specifically making tools for artists. Join the **Doodle Lab**!
- Things that make me happy:
 - drawing/painting/cosplaying silly things
 - going to concerts & playing Switch games
 - being outdoors (esp. in direct sunlight 🌞 & looking at birds)



It's my first semester!



Your turn!

- Name
- Pronouns (if you'd like)
- School & year
- 1 thing that makes you happy
- If you were a food, what food would you be and why



(Prof. Li: Chinese spicy fried chicken, 辣子鸡)

Computational



Design



Tools



Design

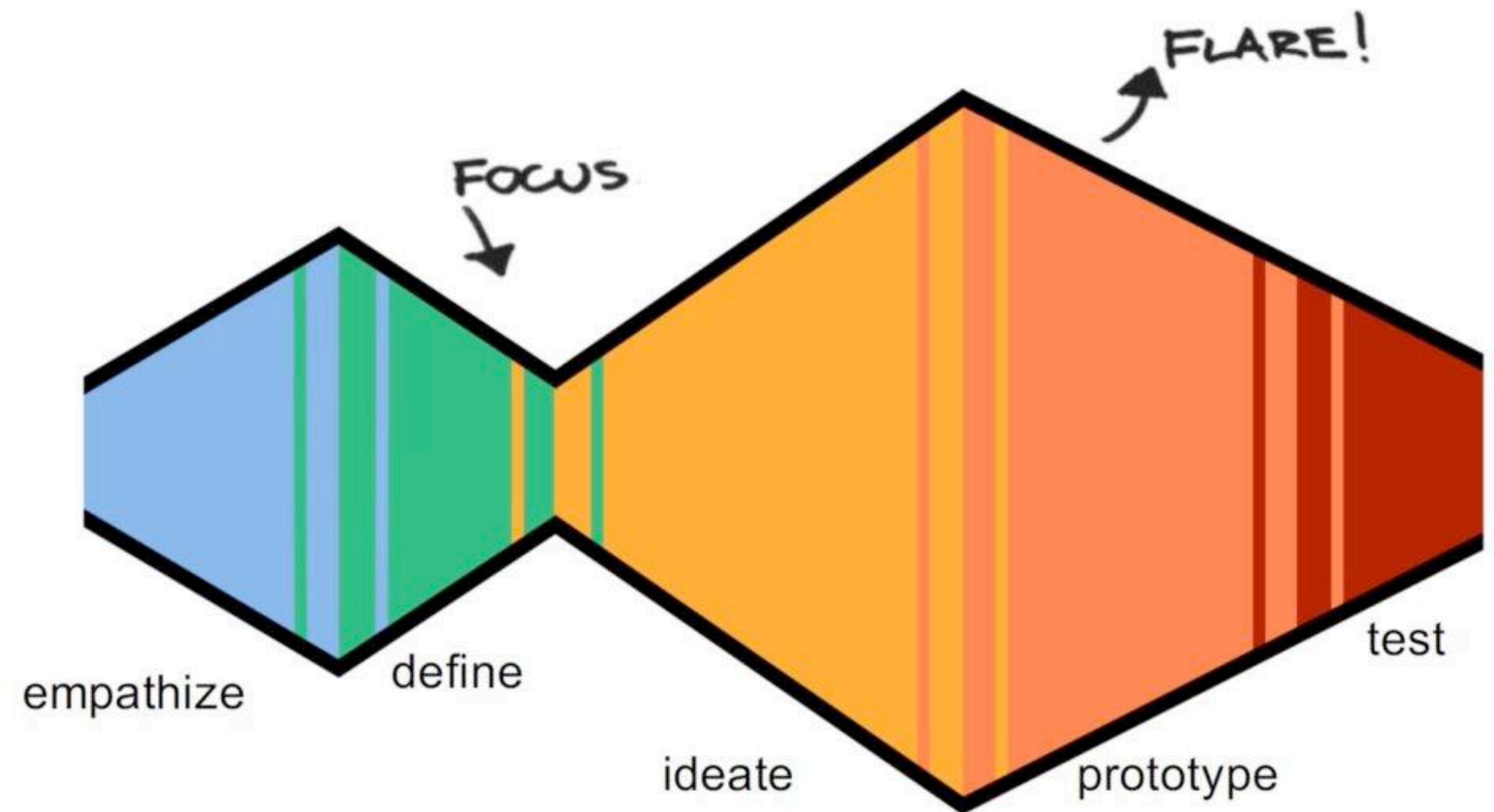
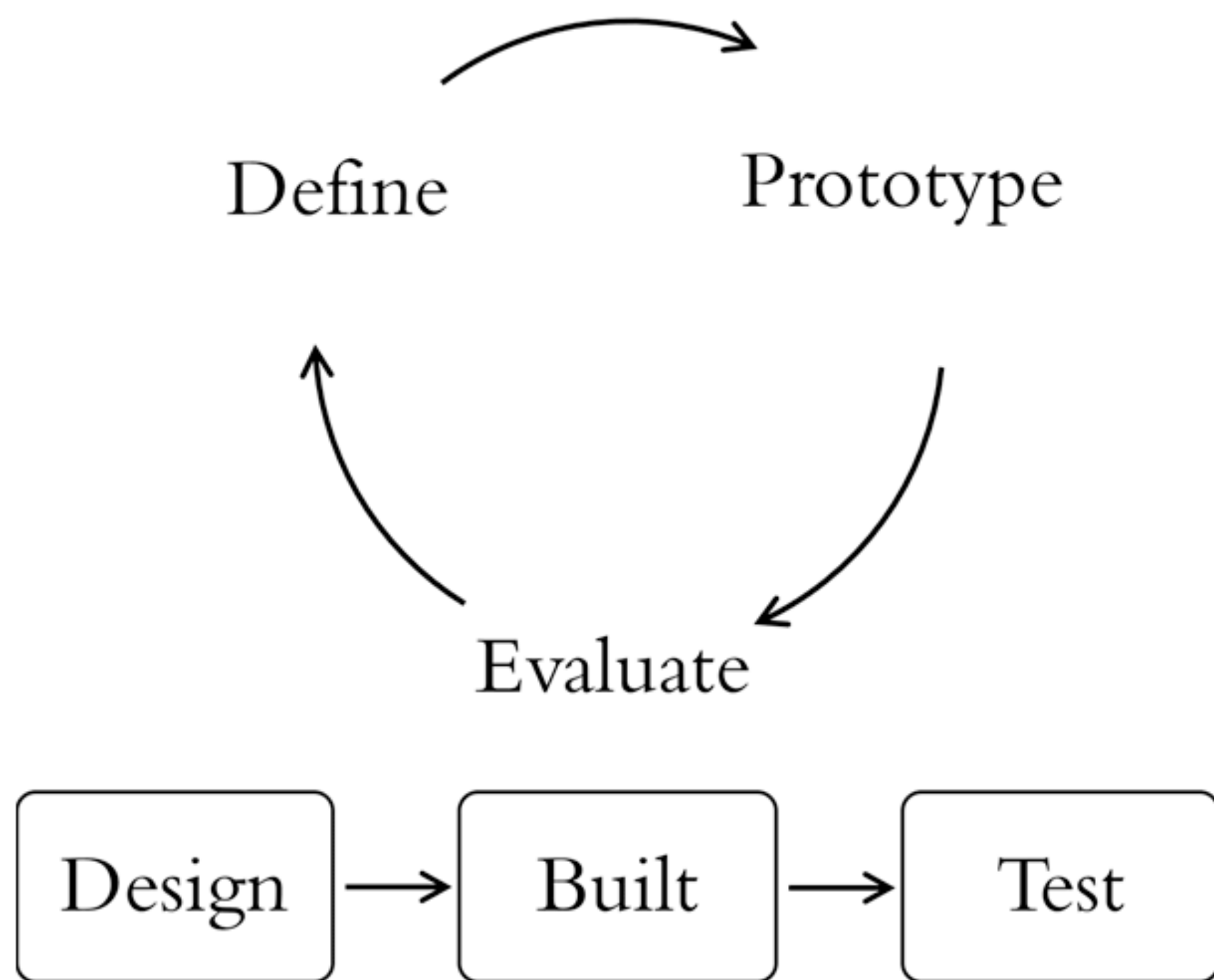
What is design?

- With your table, discuss...
 - What was the last thing you designed?
 - How would you define “design”?
 - What is the difference between design and art?
 - Come up with a group consensus definition and difference.
 - The person wearing the most colorful outfit will share back to the class



Human-centered design

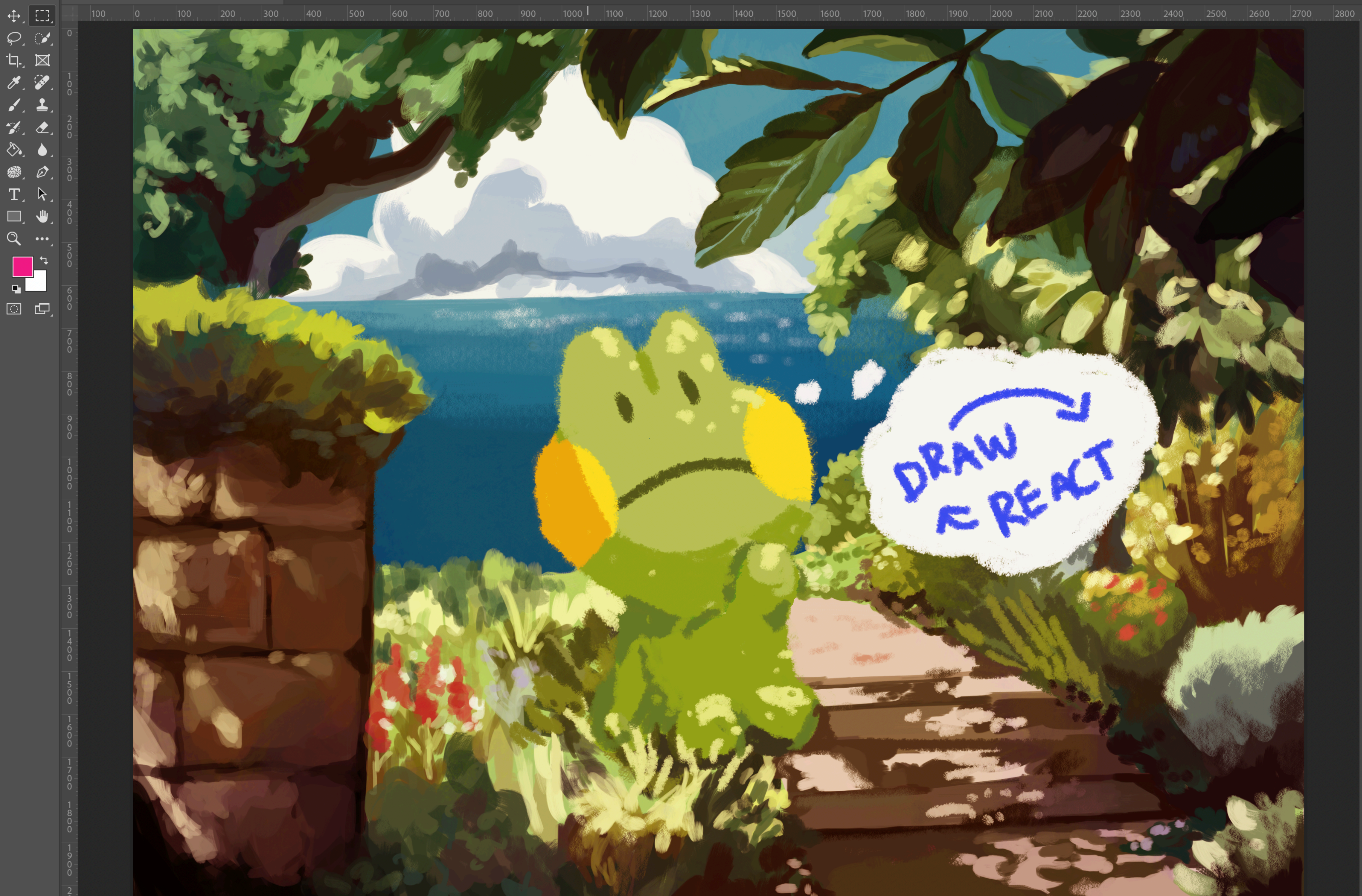
- A *methodology* for building stuff that places the *user* at the heart of the process
- Also called user-centered design, or design thinking



Tools







Color selection panel showing a color gradient from pink to purple to blue to green to yellow to orange to red.

Layers panel showing a list of layers: Color Balance 1, Layer 8, Layer 11, Layer 10, Layer 9, Layer 7, Layer 6, and Background. The 'Layer 8' is currently selected.



Start with a detailed description **Surprise me**

An Impressionist oil painting of sunflowers in a purple vase... **Generate**

Or, upload an image to edit



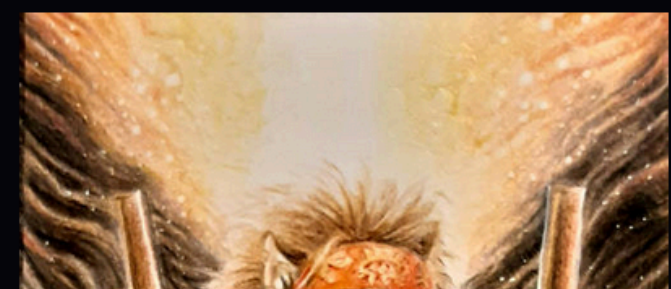
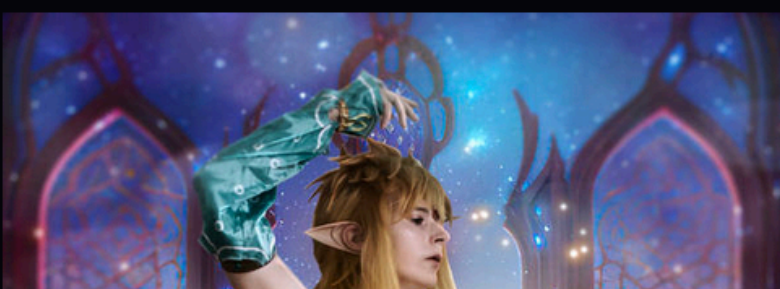
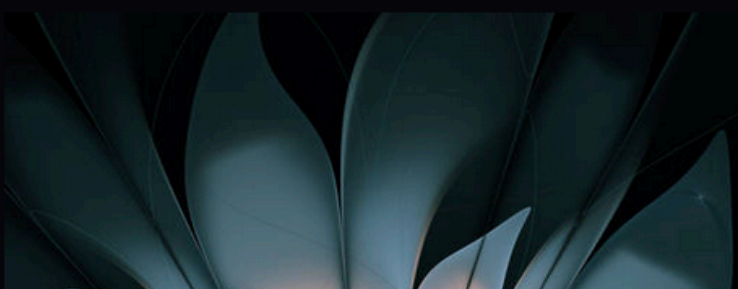
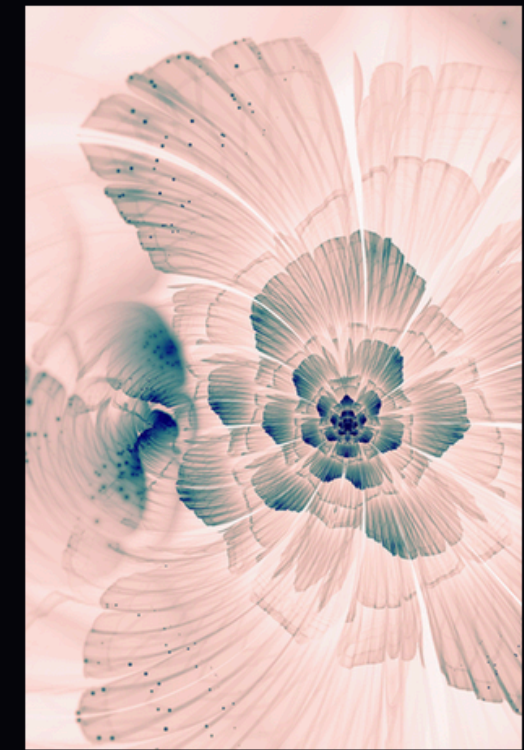
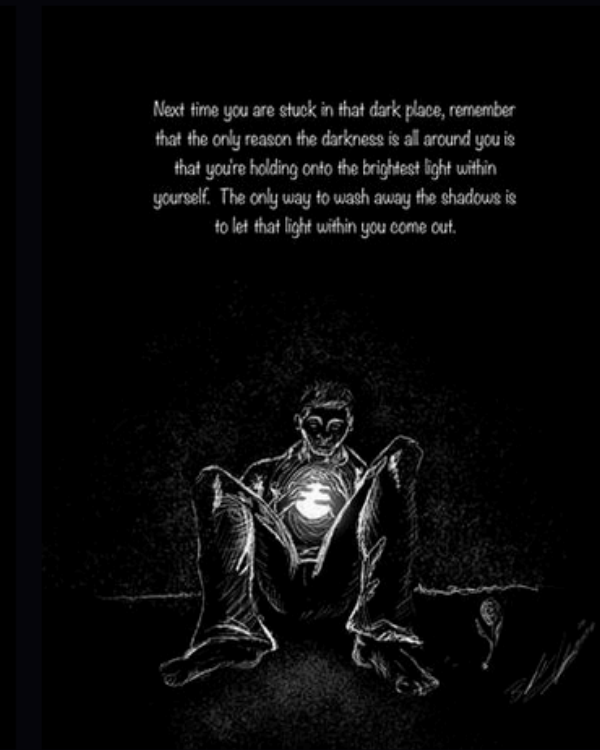


Home



- For You
- AI Art
- Digital Art
- Fan Art
- Photography
- Fantasy
- Cosplay
- Adoptables
- Character Design
- Comics
- Concept Art
- Game Art
- Science Fiction
- Superheroes
- Traditions

Treat yourself! 🚫 Core Membership is 50% off through January 15 [Upgrade Now](#)



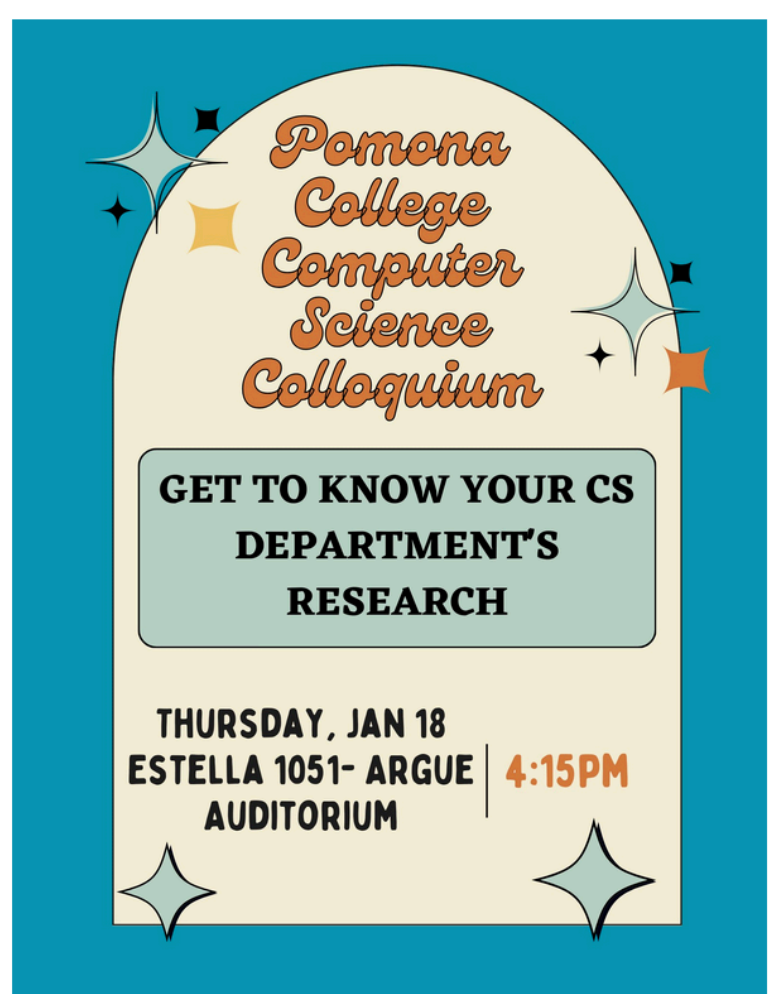
- Favorites**
 - Inbox 2
 - Sent Items
 - Drafts
 - Add favorite
- Folders**
 - Inbox 2
 - Drafts
 - Sent Items
 - Deleted Items 5
 - Junk Email 4
 - Archive
 - Notes
 - Conversation History
 - Create new folder
 - Search Folders
- Groups**
 - New group
 - Discover groups
 - Manage groups

Inbox

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CS Colloquium, this Thursday, Jan 18, 4:15pm

Vicki A. Hiraes <Vicki.Hiraes@pomona.edu> Mon 1/15/2024 2:09 PM
 To: CS-ALL Mailing List



Vicki Hiraes
 Academic Department Coordinator | Computer Science
 Pomona College
 909-607-3194

[Access the CS-ALL Home Page and Archives](#)

[Unsubscribe from the CS-ALL List](#)

Reply Forward

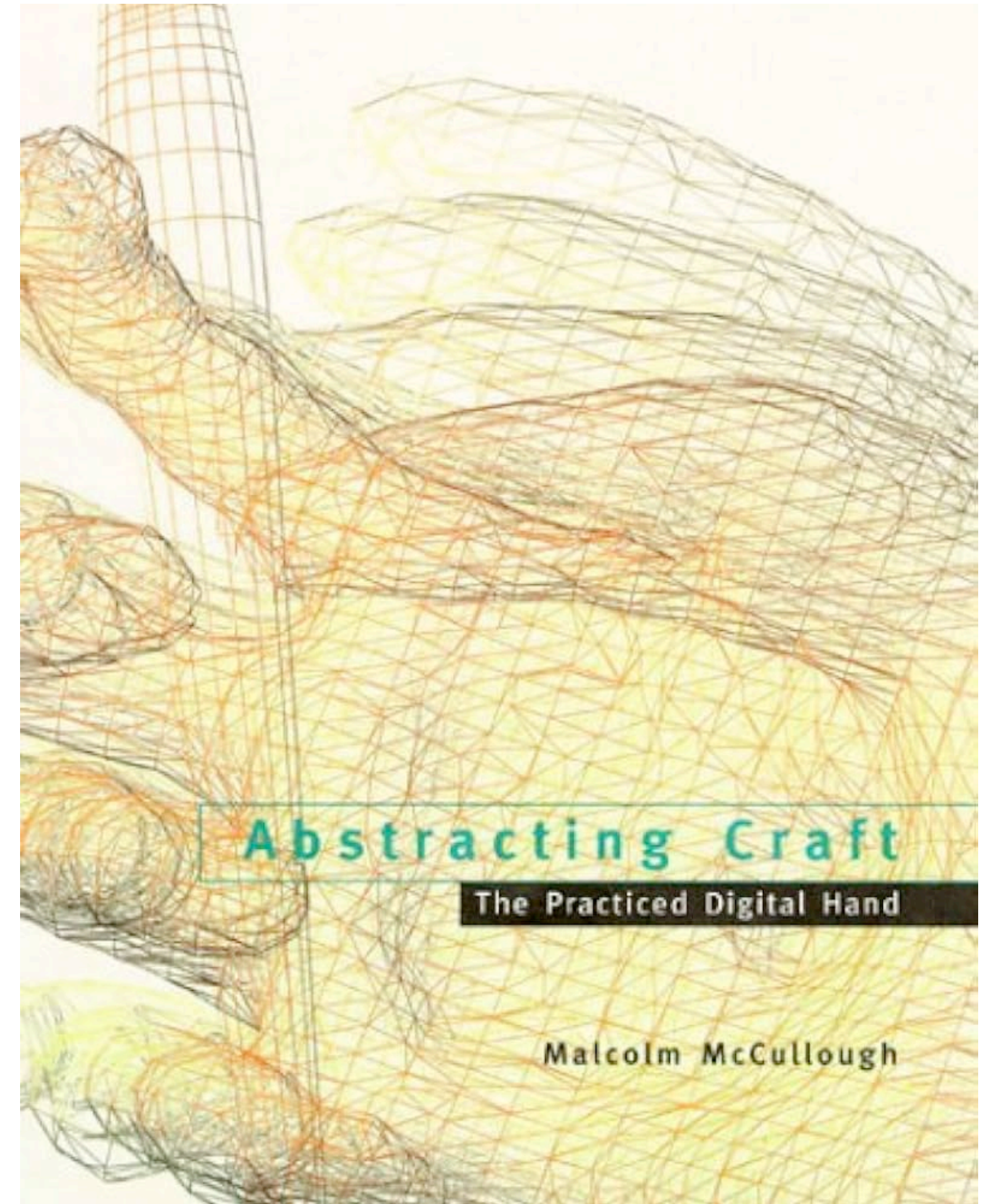
FOLDERS

- cs181dt-sp2024
 - .github
 - _announcement
 - _includes
 - _layouts
 - _modules
 - _sass
 - custom
 - announcement
 - card.scss
 - custom.scss
 - module.scss
 - schedule.scss
 - staffer.scss
 - _site
 - assets
 - assignment
 - as1.md
 - index.md
 - projects
 - _*_config.yml
 - _*_Gemfile
 - Gemfile.lock
 - LICENSE
 - README.md
 - sketchnotes.md

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1 ---
2 layout: home
3 title: CS181DT
4 nav_exclude: true
5 permalink: /:path/
6 seo:
7   type: Course
8   name: CS181DT - Computational Design Tools at Pomona College
9 ---
10
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12 ## Spring 2024 • Pomona College
13
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16 *Nothing on this website is final until the first day of class, and even then, we're always
17 evolving.*
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22 tools, like Photoshop? What are the advantages and disadvantages of *computational* tools
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26 support art, creativity, and design. Students will work both individually on weekly making
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31 CSCI 070 HM is required. Students will also complete projects that involve basic electronics and
32 digital fabrication design, but no prior knowledge in those domains is assumed.
33
34 ---
35
36 This course is divided into three rough modules:
37
38 - **Making (Weeks 1–5)**
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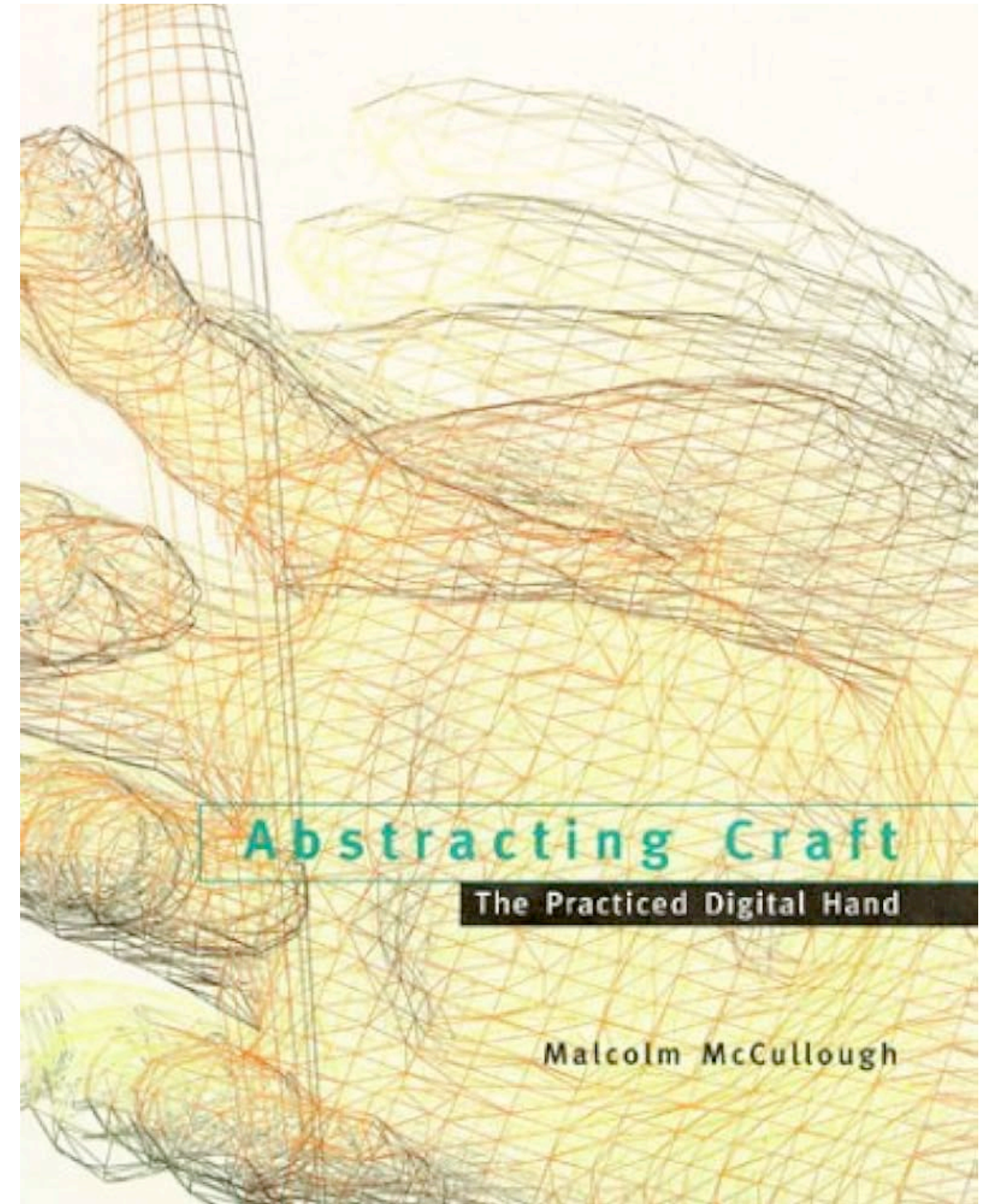
A definition of a tool

- a device or implement, especially one held in the hand, used to carry out a particular function - Oxford Dictionary
- a moving entity whose use is initiated and actively guided by a human being, for whom it acts as an extension, toward a specific purpose - Malcolm McCullough



A definition of a tool

- a **moving entity** whose use is initiated and actively **guided by a human being**, for whom it acts as an **extension**, toward a specific **purpose** - Malcom McCullough
- This to me implies..
 - 1. Interactivity (moving)
 - 2. Agency from humans (guided by)
 - 3. Complimenting human skills (extension)
 - 4. Existence of goals (purpose)



Course logistics

Types of assignments

- **Zipcrit** (I'll demonstrate Thursday)
- **Sketchnotes**
- Seminar (I'll demonstrate Thursday)
- Personal making (almost always released Tuesday and due next Tuesday)
- 2 group projects
- Almost everything is due at 2:30pm before class

Zipcrits: 5 min at the start of class

- *(From the course website)* Each student will sign up to present a "zipcrit" at the start of class. A zipcrit is **a rapid critique of a tool** (or a specific feature of a tool) of the student's choice. The presenting student has a maximum of **2 minutes and 2 slides** to introduce the tool to the class, as well as one question they would like to center the discussion around. The class will then collectively critique the artifact. Students are encouraged to use an expansive definition of "tool." It can be physical, digital, envisioned. Cute things from the depths of the internet are encouraged.

Zipcrits: 5 min at the start of class

- May I suggest thinking about the discussion in terms of...
 - 1. Interactivity
 - 2. Agency
 - 3. Existing skills
 - 4. Goals
- Try to be as specific as possible! Potential ideas: Photoshop's generative fill feature, Instagram reels, Spotify DJ, the printer you hate, Google Docs, a new kind of mouse...

Sketchnotes

- Instead of reading responses, take visual notes and include 2-3 short reflection points
- Skimming the middle details of the reading is OK: know the important bits & core argument (always fully read intro)
- Not about drawing ability at all!
- Two sketchnotes for Thursday

TITLES can be BIG

crosshatch to fill things in or dot grid rough & bold use: VISUAL HIERARCHY to convey importance

• drawings are fun, but not necessary for a great sketchnote!

• what's important is

① You work through the reading visually

② You write down 2-3 reflection points

cycle from the eye to the brain to the pen back to the page

ARROWS

CONTAINERS to help with structure.

a stray thought?

an important point!

a quiet point? a question?

L questions you still have?

L things you want to discuss in class?

L things that resonated?

L things that made you mad, or were surprising?

Sketchnote by Prof. Li, 8 minutes

- Read this <https://cs.pomona.edu/classes/cs181dt/sketchnotes/>

Grading

- **35% final project** (A computational design tool. Teams formed during in-class ideas faire)
- **15% first project** (Design for protest. I make the teams)
- **25% personal making**
- **15% readings**
 - Sketchnotes (10%) - Your lowest 2 sketchnotes will be dropped
 - Leading a seminar discussion (5%)
- **10% participation**
 - Zipcrit presentation (2.5%)
 - Attendance and participation in critiques, seminar discussions, etc. (7.5%)

Bucket system

- Group projects will have detailed rubrics. All other assignments are graded on a bucket system:
 - ✓+ : Exceeds expectations (100)
 - ✓ : Meets expectations (93)
 - ✓- : Needs work to meet expectations (80)
 - - : Clearly below expectations
- If you get a ✓- or below, you can resubmit the assignment and earn your points back
- 7 total late days to use however you want (except on group projects)

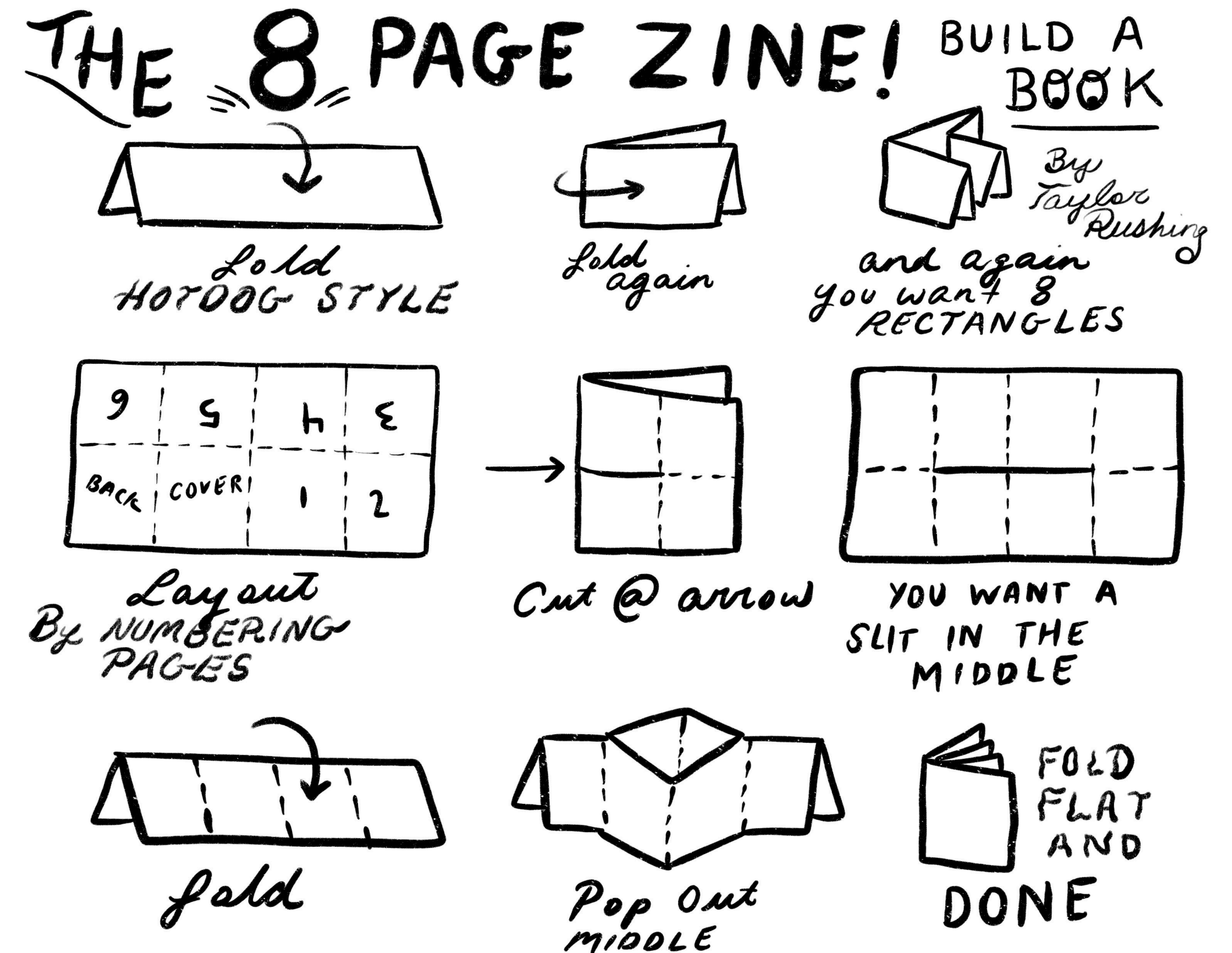
Getting help

- This class is a lot of work (I'm aiming for 8-10 hours/week not including class time). And doing mostly "creative" projects can feel challenging.
- I am here to support you!!!
- Office hours: Mon, Tues, Weds 4:15-5:15 (right after class on Tuesdays) Edmunds 111, or by appointment
- You'll all be added to a course Slack by the end of the day. Treat it as a forum. Your classmates are here to support you, too!
- Best way to contact me is via Slack DM

PM1: Hacking Zine

<https://cs.pomona.edu/classes/cs181dt/assignments/as1/>

- First, read & sketchnote Making or Making Do?
- **Make a physical zine about a time you hacked something**
- Also not about drawing ability!!
- Detailed instructions are on the class website
- Due next Tues (1/23) 2:30pm: turn in on Canvas & **bring to class on Tuesday**
- Take scissors, glue, magazines etc. if you need them (return them Tuesday)



Class 1 recap

- TODOs:
 - By **EOD**: Class survey (linked on Canvas, and class website)
 - Give preferences for seminar & zipcrit days
 - If you're on the PERM list and want to take the class, mention that
 - By **Thursday**'s class: 2 sketchnote readings (Making or making do? & AI art and its impact on artists)
 - By **next Tuesday**'s class: PM1 - Hacking Zine
- Bookmark the class website! <https://cs.pomona.edu/classes/cs181dt/>
- Drop off your name tag before you go!



CS181DT Welcome Survey (Spring 2024)

Please fill out this survey by EOD Tuesday, 1/16/24.

[Sign in to Google](#) to save your progress. [Learn more](#)

* Indicates required question

Preferred name *

Your answer

Pronouns

Your answer

Email *

Your answer

Which of these (if any) courses have you already taken? *

If you've taken other courses you believe are relevant to CS181DT but aren't listed, feel free to list them under "other".

CSCI124 PO - User Interfaces and User Experience

CSCI124 HM - Interaction Design

ENGR180 HM - Human-Centered Design

None of the above

Other: _____

How would you self rate your existing experience in the following topics? *

No prior experience in any of these is needed to be successful in the class :) Don't let this question discourage you: it is just so I know how to calibrate my lesson plans, and for me to better help you learn!

	No experience	Barely any experience	Some experience, but don't feel confident	More than a novice, but not yet expert	I'm an expert
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Human-centered design methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------