

Outline

- Processing challenges
- boundaries
- getting input

Review

- First project proposal
- (continued)

Cool media art pieces

- Project proposals

Prof. Angela Chang

Lecture 17: Animtaiton, interactivity + First project research

Fall 2017. Nov. 6

CODE, CULTURE, AND PRACTICE

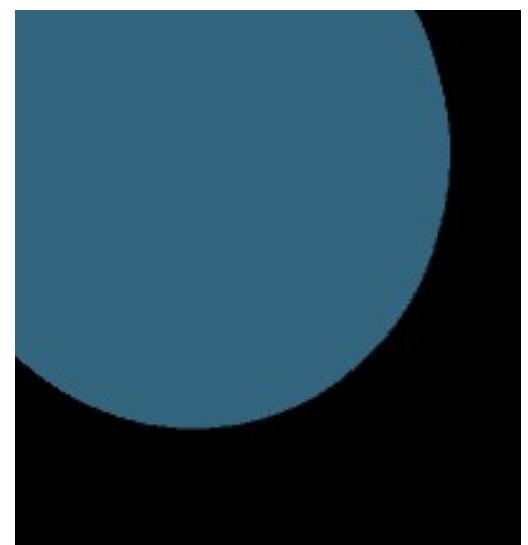
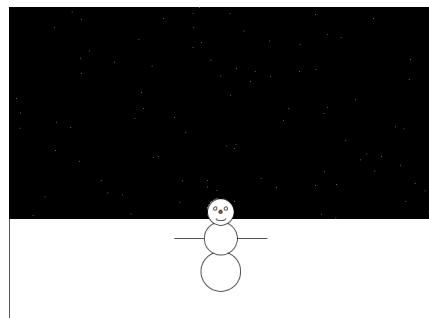
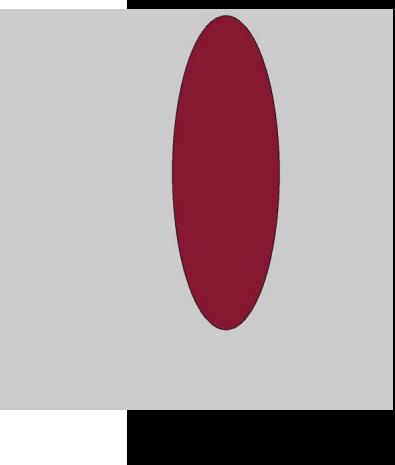
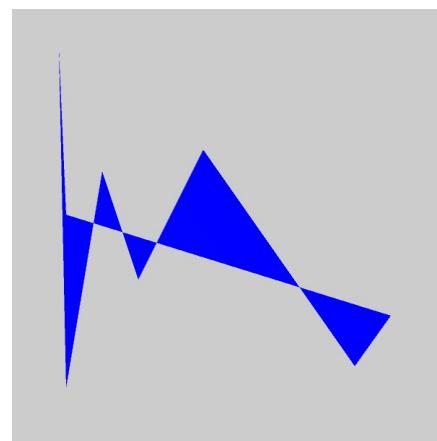
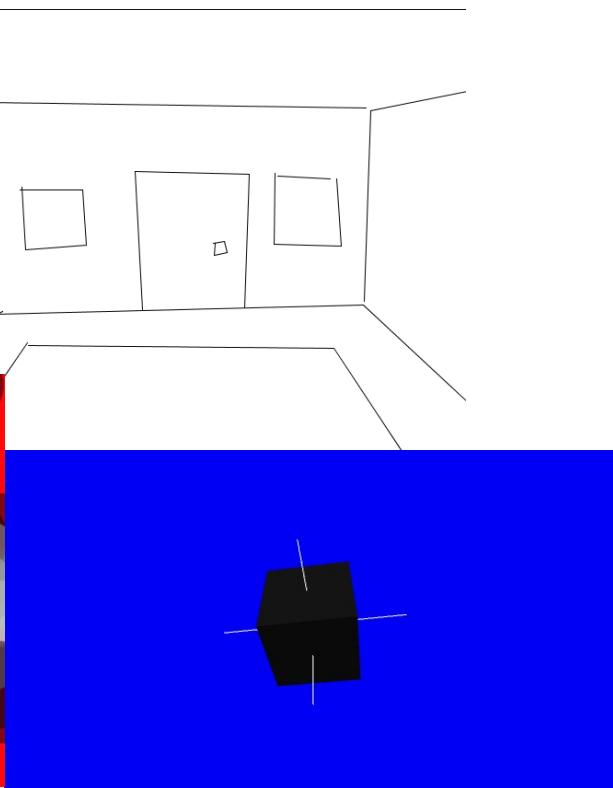
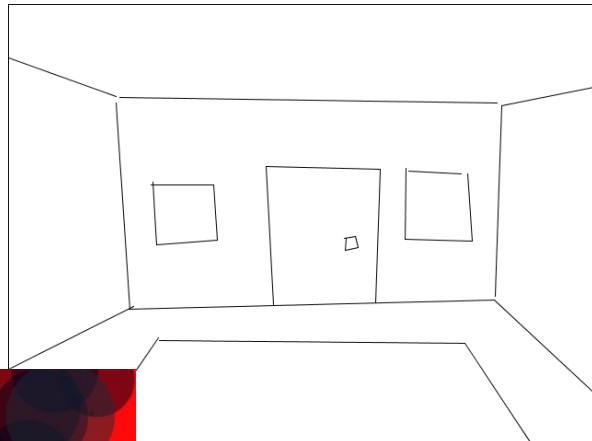
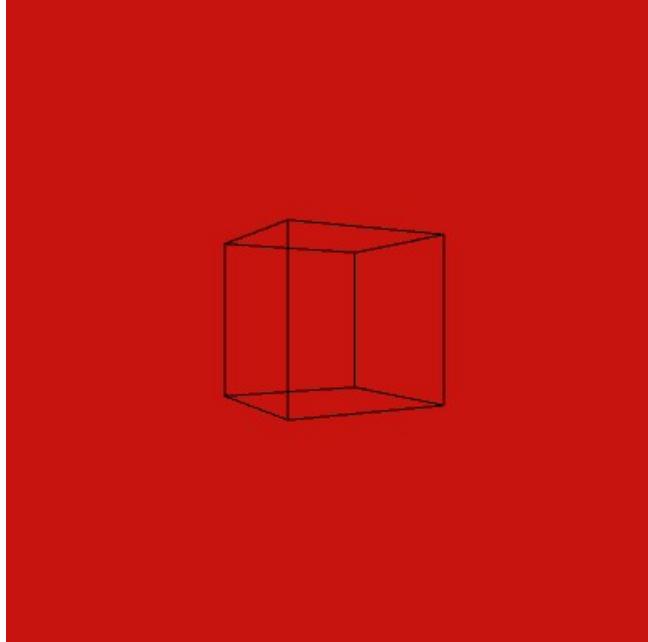
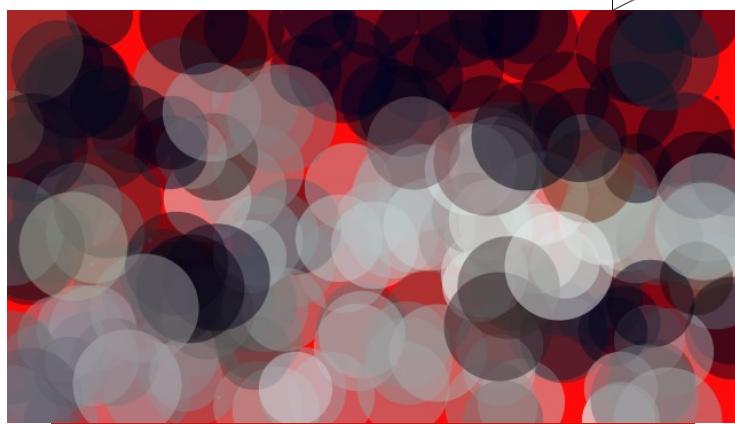
Bin
Chance
Nathan
Alex
Bitsy
Minh

BenEhrlich
Isaac
Sienna
Jude
Sandra

BenEpstein
Chloe
Ryan M
David
Katja

Trevor
Cameron
Victoria
Derek
Sam

Rey
Ryan L
Natalie
Alexis
Evan



Group Collaboration and submit for class participation
Each person – describe what it does in comments # or “”“multiline quotes”””

The image shows a grid of nine Processing sketches, each with its code and preview window.

- Ex_04_06_UseAForLoop | Processing 3.3**:
Code:

```
size(480, 120)
strokeWeight(8)
for i in range(20, 400, 60):
    line(i, 40, i + 60, 80)
```

 Preview: Shows a series of parallel diagonal lines sloping upwards from left to right.
Output: Ex_04_06_UseAForLoop
- sketch_170401j | Processing 3.3**:
Code:

```
size(480, 120)
strokeWeight(2)
for i in range(20, 400, 8):
    line(i, 40, i + 60, 80)
```

 Preview: Shows a series of parallel diagonal lines sloping upwards from left to right, similar to the first sketch but with a smaller stroke weight.
Output: sketch_170401j
- sketch_170401l | Processing 3.3**:
Code:

```
size(480, 120)
strokeWeight(2)
for i in range(20, 400, 20):
    line(i, 0, i + i/2, 80)
```

 Preview: Shows a series of parallel diagonal lines sloping upwards from left to right, with a larger stroke weight.
Output: sketch_170401l
- Ex_04_09_KinkingtheLines**:
Code:

```
size(480, 120)
strokeWeight(2)
for i in range(20, 400, 20):
    line(i, 0, i + i/2, 80)
    line(i + i/2, 80, i*1.2, 120)
```

 Preview: Shows a series of parallel diagonal lines that kink at the midpoint, creating a zigzag effect.
Output: Ex_04_09_KinkingtheLines
- Ex_04_10_EMBEDTWOLOOPS**:
Code:

```
size(480, 120)
background(0)
noStroke()
for y in range(0, height+45, 40):
    for x in range(0, width+45, 40):
        fill(255, 140)
        ellipse(x, y, 40, 40)
```

 Preview: Shows a grid of black circles on a white background.
Output: Ex_04_10_EMBEDTWOLOOPS
- Ex_04_11_RowsAndColumns**:
Code:

```
size(480, 120)
background(0)
noStroke()
for y in range(0, height+45, 40):
    fill(255, 140)
    ellipse(0, y, 40, 40)
for x in range(0, width+45, 40):
    fill(255, 140)
    ellipse(x, 0, 40, 40)
```

 Preview: Shows a grid of black circles on a white background, rotated 90 degrees.
Output: Ex_04_11_RowsAndColumns
- Ex_04_13_HalftoneDots**:
Code:

```
size(480, 120)
background(0)
for y in range(32, height, 8):
    for x in range(12, width, 15):
        ellipse(x + y, y, 16 - y/10.0, 16 - y/10.0)
# new rows move to right and shrink size
```

 Preview: Shows a halftone dot pattern.
Output: Ex_04_13_HalftoneDots
- Ex_04_12_PinsAndLines**:
Code:

```
size(480, 120)
background(0)
fill(255)
stroke[102]
for y in range(20, height-15, 10):
    for x in range(20, width-15, 10):
        ellipse(x, y, 4, 4)
        # Draw a line to the center of the display
        line(x, y, 240, 60)
```

 Preview: Shows a grid of small circles connected by lines to a central point.
Output: Ex_04_12_PinsAndLines

Effective group discussions

- Not “I like or don’t like”
- Things you don’t understand
- Things that it reminds you of
- Questions about the form, shape or implementation
- Sharing and caring.
- Everyone should get to speak
- Be professional



Check on <http://bit.ly/Fall2017FirstProjectProposalPosters> for image repository of presentations.

Value based groups

Bin
Chance
Nathan
Alex
Bitsy
Minh

Text Mashups
Visualizations:

BenEhrlich
Isaac
Sienna
Jude
Sandra

Emotions/Wellness
Informational Websites

BenEpstein
Chloe
Ryan M
David
Katja

Time Manipulation &
Feedback

Trevor
Cameron
Victoria
Derek
Sam

Informational Media
Experiences

Rey
Ryan L
Natalie
Alexis
Evan

Comparative Visualizations

Groups roles

decide on roles, repositories, and communication strategy

**Each person should pick at least one role.
Everyone should perform the role of information giver today.**

Leader/Information Seeker	Documenter /Data Lead	Orienter/ Summarizer	Opinion seeker/ Clarifier
<ul style="list-style-type: none">• Leads the research• Asks questions• Identify “Knowns” and “Unknowns”• Collects problem views and potential solutions	<ul style="list-style-type: none">• Manages Data Repository• Reports on how solutions were achieved• Documents what was attempted and what didn’t work	<ul style="list-style-type: none">• Presents the findings• Keeps the ball moving toward results• Develops insights regarding data, with the documenter• Pursues visualization of end result	<ul style="list-style-type: none">• Reports on group flow and dynamics• Discusses group role and roles• Aims for democratic participation from all parties

Information Giver:

provides facts, examples and statistics for consideration

Group exercise: Research your topic



We'll form into groups to pursue the projects towards some form of realization and clarification.

- Reflect on the feedback and messages presented in class.
- As a group, look online and create media documenting effective messages, media works, and resources relevant to those heard in class. This can be an abstract, collage, and/or file repository.
- Post your collaborative research in an online repository of some sort (**Wordpress blog, Dropbox, and/or Github**). Upload a summary document describing the resources you've found, any analysis you've done, and the link to the resources.
- Share your group work in progress on Wednesday 11/8

Group Research Repositories

Got data? Make it easy for other people to help you— give them a place they can contribute to your research.

e.g.

Research on Food Sources
Populations
Corporate accountability

<http://open.sourcemap.com/>
<https://www.census.gov/developers/>
<http://www.theyrule.net/>

To: [redacted]
IPP: Are you too hardk0re for Burning Man?
ecdisc 1

<https://goo.gl/forms/s8fTQLMxlxdhwrXV2>

stemming from a conversation I had with a friend about how a higher percentage of east side denizens have probably gone to burning man than the general population, but the possibility that the percentage lower than it could have been, because people have become too jaded/hardk0re about that sort of thing because of their undergrad experiences and therefore get turned off to burning man type shit

this IPP is not sponsored by burning man

Example gathering data:
dormitory polls by
undergrads

Think of google forms:
[Poll](#) [Results](#)

Design does not occur in a vacuum

Activity Theory – consider full context of interaction between people and places, objects, and each other.

High (goals):

why they are doing X in context.

Value systems,
philosophies driving the
interaction.

Middle (functions):

what they are trying to do.

How things work or
don't work. What is the
action they perform?

Lower (interface):

what they sense and experience

The technical details of
the relationship
between input and
output.

Homework: Activity Theory

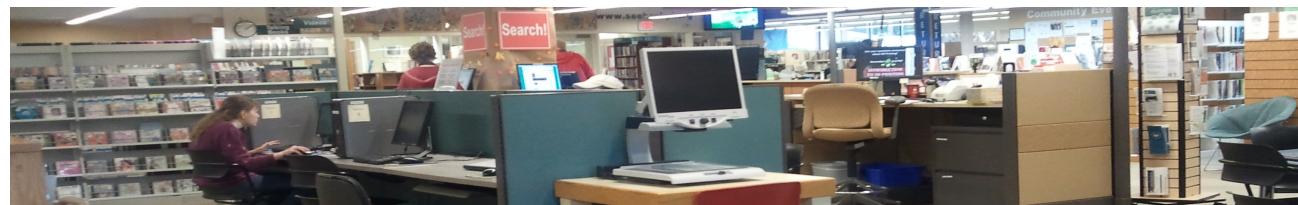
Create an activity theory diagrams relating to your project. If you are combining your projects with another person's, please submit together.

What people are your users/audience? How might they want to interact with your project, and what inputs and outputs they will be sensing (seeing, hearing, smelling)?

Helpful Resources

- Video <https://www.youtube.com/watch?v=mb-3ufwK6U0>
- [Tutorial on Activity Theory](#)
- [ibeginners guide to interaction design](#)
- Canvas folder readings

Upload your activity theory diagrams to canvas, in addition to putting them in your presentation next week.



Homework

due tonight!

1

Share your group information on roles today, tell me where are the repositories of information and organize it together. Wednesday end of class, we will share that with the rest of the class.

2

Submit your group participation for today in Canvas.

Heads up (Activity theory due next Monday)

Summary of today

- Your first media arts collaboration
 - Class participation credit for today –group information
 - Repositories
 - Initial peer reviews
- HW for Friday
 - Reflect on how the class is going for you
 - Peer reviews due by Friday afternoon

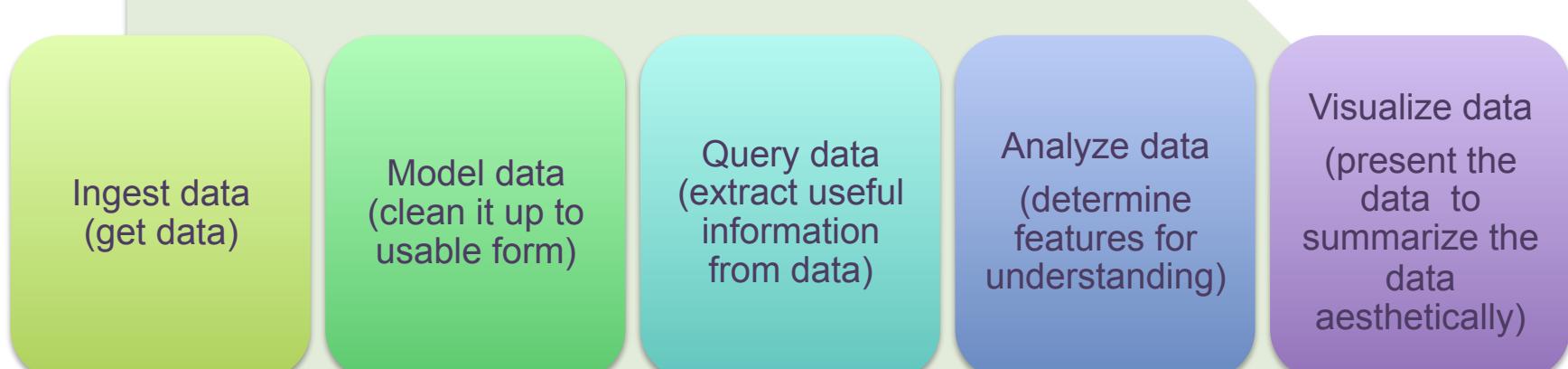
Group work on Wednesday–

- Groups share your media repository and any decisions you've made

Python for Data Analysis

The Pandas package

```
from pandas import *
import pandas as pd
%matplotlib inline
import numpy as np
import matplotlib.pyplot as plt
```



This process is often iterative, but in general you move forward from one stage to the last.

Graphing quiz results with PANDAS.ipynb