CS 100: Human Drawing

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Week 3-2

Logistics

HW 2 due Tonight

- Thursday by 11:59pm
- Code.org plus a few additional exercises

HW 3 Python programming

- Make sure you have access to a computer
- Install Python 3
- Will be posted over the weekend
- 2 weeks to work

Mini-Exam 1

- Last 30 minutes of today's class
- 1 page, front and back
- Open resource: notes, book, slides
- Stuff like HW 1 and code.org exercises

Reading

- Pattern Ch 3
- Zyante Ch 3
- Think Ch 1-3

Goals Today

- Devious Pair Drawing
- Mini-exam 1

Quick Review

- How do computers combine bits to produce other bits?
- Historically, why was it hard to get computers to do stuff?
- What makes it easier now?
- What language will we use to communicate with our machines in CS 100?
- How do you start the program to use that language
- What can turtles do?

A picture is Worth a Thousand Words

Today we'll talk about pictures and describing pictures

- Why is a picture worth a thousand words?
  - About 7.8 Kilobytes (smirk)
- What kinds of representations for pictures did we discuss last week?

First Drawings

1. Get a sheet with drawings on it from Chris
2. Examine one of the drawings in your collection and pick one
3. On a sheet of paper write down instructions to draw the picture
4. Use only words, no pictures
5. Fine to say things like "little" "star" "square" "within" "left"
6. Someone else will have to follow your instructions to draw these
7. You have 8-10 minutes to write

Exchange

1. Find a partner in front or behind you
2. Exchange instructions but not drawings
3. Follow the set of instructions you have to draw a picture
4. In 5 minutes compare drawings to what you were supposed to draw
5. Discuss what went well, what was hard

Discussion

- Common elements?
- What was difficult? Easy?
- What language did you find specific/ambiguous?

Second Round

1. Get a second drawing from Chris
2. Same deal: write instructions, exchange with partner, recreate

Second Pictures

These intentionally involve some programmatic elements

- Repetition
- Conditions
- Coordinate system

Made using Python's turtle module

Code for Drawings

- Will be distributed with lecture files
- Called `drawings.py`: Python source code
- Have a look and identify familiar elements
- Over the weekend, run this on your own computer

Examine `drawings.py`

- Used to create your back to back drawings
- Have a look and identify familiar elements
- Saves images to a funny format: *PostScript*, similar to PDF but requires conversion or a viewer to look at them

Next Time

- Diving into Python Drawing
- Start on HW 3

Mini-Exam 1

Now