USING PROCESSING FOR LARGE/BIG DATA

```
void setup() {
  location = "CEMC 2016 - Summer Conference";
  presenter = "Andrew Seidel";
}
```

Repo for this presentation available here

Agenda

- Processing
- Big Data
- Why in ICS4U?
- What data to use?
- Examples

WHAT IS PROCESSING?

Processing is a flexible software sketchbook and a language for learning how to code within the context of the visual arts. Since 2001, Processing has promoted software literacy within the visual arts and visual literacy within technology.

WHY PROCESSING?

Processing is:

- Easy to learn
- Quick for students to be successful
- Quick to get visuals on the screen
- Based on the Java language

WHY NOT P5.JS?

Why not?!
But no, why not?...
It's my plan to transition to p5js for Sept 2017.

WHAT IS BIG DATA?

According to Google, the definition is:

> *"extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions."*

WHAT IS THE USUAL DATA FOR HIGH SCHOOL STUDENTS?

WHY IN ICS4U?

Used as a culminating, it allows students to demonstrate their knowledge of the entire curriculum under a new environment. Students get their own individualized data, and due to the complexity of the task at hand, it alleviates any plagiarism cases.

WHAT DATA TO USE?

- Government Data
- Weather Data
- Student choice of data
- Individualized given data

WHAT IS THE ASSIGNMENT GIVEN?

As a culminating task, complete the following

Take your individualized data and create a program to visualize it in a non-standard way

SAMPLE VISUALIZATIONS GIVEN TO STUDENTS

- Map of Building's Age in Netherlands
- Mapping of Flavor Connections
- San Francisco Transit
- TweetPing
- Wind Map
- Moving Map
- Letter Pair Analysis

EXAMPLES

Examples of data can be found here: http://bit.ly/seidel-bigdata-cemc

Examples of student projects can be found here

Go to Catherine's session tomorrow for some p5.js

Also, great tutorials for Processing and p5js are created by Daniel Shiffman on YouTube