Introduction to Code/Art and Open Data Visualization

"Today we're beginning to realize that new media aren't just mechanical gimmicks for creating worlds of illusion, but new languages with new and unique powers of expression."
– Marshall McLuhan, 1960

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Workshop Description: Data visualization can consist of much more than charts and graphs. What are the unique powers available through code / art and how might we leverage these for Digital Humanities? Understanding the power of art to force a confrontation with difficult theoretical questions opens an important area of exploration for Digital Humanities. This workshop is aimed at a general audience interested in exploring these questions through a hands-on use of code for art tailored for those with no coding experience, but amendable to participants of all experience levels.

Workshop Objectives

- Illustrate understanding of fundamental programming skills
- Construct questions that can be uniquely explored through artistic visualization
- Develop code that demonstrates artistic uses of data
- Appraise the use of data in generative art projects

Required Workshop Materials

Image from the book: Generative Design

There are no required paid materials for this workshop, although you will a laptop with wifi capabilities in order to participate. We will be using an open source editor and open data, while drawing on examples and code from p5js.org. Rather than having readings that we draw on, we will be coding examples together in during the workshop in order to develop basic skills and then applying these to individual projects. You can install the editor ahead of time and/or peruse our potential data sources ahead of time if you would like to begin brainstorming:

p5.js Editor: https://p5js.org/download/

Guelph Open Data Portal: http://data.open.guelph.ca/

Ontario (Open) Data Catalogue: https://www.ontario.ca/search/data-catalogue?sort=asc&status=%5B%2230%22%5D

Suggested (Optional) Reference: Getting Started with p5.js: Interactive Graphics in JavaScript and Processing (Make) by Lauren McCarthy, Casey Reas & Ben Fry

Schedule

Monday May 8th

9:30-10:00	Introductions
10:00-11:00	Code/art background and examples
	Application to DH

|	Installing p5.js
11:00-12:00	Drawing shapes
	Saving and publishing
1:30-2:30	Example p5.js projects
	Finding open data sources
2:30-3:30	More drawing shapes
	Variables
3:30-4:30	Brainstorming personal projects

Tuesday, May 9th

9:00-10:00	Using variables and loops
10:00-11:00	Responding to input
11:00-12:00	Rotating and Scaling
1:00-2:00	Using Media
2:00-3:00	Importing Data
3:00-4:00	Working on personal projects

Wednesday May 10th

9:00-10:00	Creating motion
10:00-11:00	Accessing webcam and microphone
11:00-12:00	Peer feedback on projects
1:00-2:00	Learning coding by example
2:00-4:00	Working on personal projects

Thursday, May 11th

9:00-10:00	Resources for further learning (geo-location, Arduino connectivity, speech recognition)
10:00-12:00	Working on personal projects
1:00-2:00	Working on personal projects
2:00-2:30	Wrap-up and Conclusions
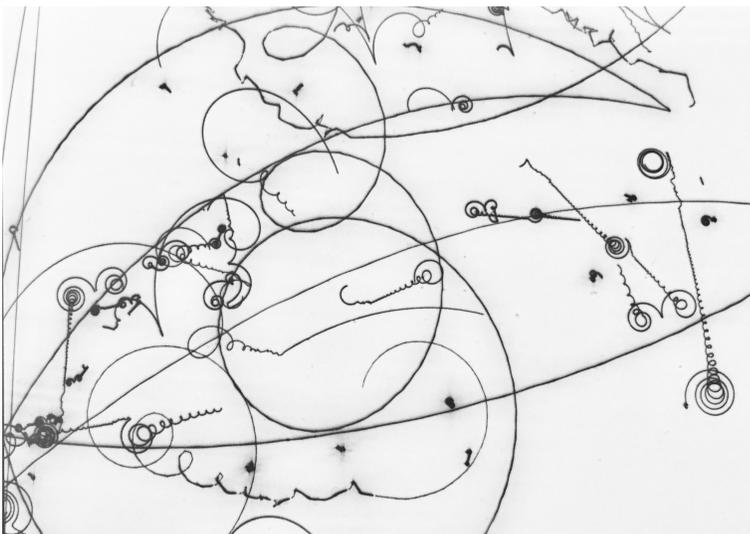
Subjecktbeschleuniger
Image based on signatures left by subatomic particles in sectors like those used by the CERN. Created by Eno Henze (2008) and published in the book Generative Design.