ART 486: Project 2
Interactive Data Visualization: TouchDesigner Project
(Due November 11th)

Description:
Select a data set to visualize. I would recommend starting with this website (https://ourworldindata.org/). If you decide on a data set that exists on another site we are looking for the file format .CSV or .TSV. The selection of this data should be considered as equally important as the content that you create with it. Using the in-class demos as a starting point, create 1 unique piece of **interactive** content for a data visualization that references, reinterprets, or critiques the work of the inspirational artist you selected.

You will present and demo your project for critique. By the beginning of class, zip and turn in your project folder to Google Drive, with the naming convention: FirstInitialLastname_TD_Data.zip

Additionally Deliver a rendered demo of your content, saved as an .mp4 to the Blackboard assignment by the end of the day (11:59 pm) with the naming convention FirstInitialLastname_TD_Data_Doc.mp4 (files no larger than 1GB). **Write a short description about your project including what data you used, how you visualized that data and what type of interaction you designed.

Evaluation Criteria:
This project is worth 20% of your grade in this course

Project 2 is worth a total of 100 points

10 points for the Inspirational Artist Presentation
10 for the Interactive Design Exercise
5 for visible influence of inspirational artist (proper critique, reference, or conversation)
20 points for Creativity (concept, execution, ingenuity)
20 points for Content/Data Visualization design (aesthetics, relevance, processes)
20 points for Function (Interaction, data input/filtering, ease of use, conceptually important)
5 points for turning the project into the correct folders with the correct naming conventions
10 Achievement beyond expectations

Homework 1: Inspirational Artist Presentation (DUE 10/12)
Select one of the following artists and research their work. Put together a 3-5-minute presentation on their art and main themes. Show us some examples of their work and tell us about their process. **Save your presentation as a PDF** and upload it to this Google Drive folder before class.

Anouk De Clercq	Mary Ellen Bute	Jessica Ashman
Wassily Kandinsky	Universal	Viking Eggeling
Zach Lieberman	Everything	Len Lye
Oskar Fischinger	Karolina Sobecka	Hans Richter
Norman Lewis	Perry Hoberman	Alida Sun

Team Lab	Ori Toor	Jordan Belson
Crystal Jow	Anne-Sarah Le	Stan Vanderbeek
Davide Quayola	Meur	Refik Anadol
Nonotak	Akiko Yamashita	Dr. StrangeLoop
Beeple	Tony Oursler	

Homework 2: TouchDesigner Tutorial (DUE 10/12)
Download TD for free [here](#) on your own computer to complete chapters 1 & 2 of this [tutorial](#) ([BCPL Lynda Access](#) required).

Homework 3: [Tutorial 01: Organization and Structure](#) (Due 10/14)

[Demo Materials](#)

Screenings:

https://vimeo.com/325634926

https://vimeo.com/299626624

Homework 4: Interactive Design Map (DUE 10/19)
Using your artist research as a starting point, create a single image that captures the tone, mood, aesthetics, and designs for one of your interactive content ideas, using any medium you wish.

Draw over, make notes, and describe how this image could be made interactive and how you plan to use data. What is the primary input or interaction paradigm? What data are you interested in working with and why? What parameters of the elements in the image are affected? Begin to construct your visual system in TD.

Upload a JPG of your interactive design map, and a brief description of your design decisions. [Google Drive](#)

Naming convention: FirstInitialLastName_TDInteractiveMap.jpg

Homework 5: [Tutorial 02: Data Filtering](#) (Due 10/19)

Homework 6: TouchDesigner Tutorial - Select 1 (Due 10/26)
Complete **one** of the following tutorials.

- [Noise Displacement](#)
- [Instancing Geometry](#)
- [Looping Noise Part 1](#)
- [Looping Noise Part 2](#)
- [Variable Line Width](#)

- [Particles](#)

You are to follow along with the tutorials and recreate the patch yourselves. Then, make changes and adjustments to the patch to make it your own. This can serve as the foundation for the visuals of your project. **Write down and submit 2 questions that come up for you as you go through the tutorial.**

In Class 10/26: Tutorial 03: ReRanging & Visual Integration **(Due 11/2)**

       03 Materials

In Class 11/2: Tutorial 04: Interactivity **(Due 11/9)**

Homework 7: Interactivity

Add at least one interactive input to your project, finish the visual patch and data visualization. **(Due 11/11)**

Homework 8: Complete Project (Due 11/11)

- Create screen capture documentation of your project using the MovieFileOut TOP
    - As demoed in class (here)
    - Compress your footage using Handbrake following these instructions, beginning at number 2 (Handbrake Instructions)

Course Goals Utilized:
- Explore alternative structures for animated media
- Expand understanding of animation to include interactive installations, art gallery exhibitions, projection mapping, media art, concert visuals, data visualization and video games.
- Develop skills in animation mechanics, project organization, and conceptual ideation
- Introduce students to industry-standard development software and best practices.

Learning Outcomes Approached:
- Use fundamental procedural and generative animation techniques to create interactive media-based systems
- Take initiative to solve technical problems through self-learning
- Discuss aspects of historical and contemporary animated works in the context of your creative assignments
- Manage your time in an effective way on a project
- Give, receive, and apply feedback from peers and the professor
- Design an interactive animation installation
- Incorporate animation and video content into an interactive system and create animated content using TouchDesigner
- Work with projectors, monitors, and other screens in a safe and efficient way

Optional Resources

- [Generative Design Chapter M.1 - Noise](#)
- [Generative Design TD Examples](#)

Notes