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Class: CART 353

Concepts: 50 ideas

- Generated graphics by transit data that will create a visualization of the transport
  we use every day. Transportation has changed so many different things in our city
  that we can't resist and not use it anymore. It enables the city to move in a fast
  past that we can't keep track of.
- Audio reactive visualization of temperature data. Since climate change has a lot of
  effect on the environment, we are witnessing how the temperature is always
  unstable. It will allow to create awareness on how oscillating the nature has been.
- Wind Movement data that create a 2D video painting. Wind is not perceivable with the eye. In that case, it will let the viewer see the actual movement of each wind speed and movement. As well, more and more information is added to the video that create the painting.
- How can we push our visual perception? A video mapping that create minimalistic
  and abstract visuals on architectural shapes and let the viewer see different eye
  illusions. Depending where the viewer is standing, the perception of objects will be
  different and someone standing on the other side of the object.
- In a computational way, is it possible to create spider webs? This reproduction is aiming at a possible creation of nature in a virtual world. This idea will be made in 3D with a randomized (but kind of controlled as well) movement of the spider moving in the space and creating his environment.
- What could be an artificial face? A live camera will film the person directly and when it recognizes the face, it will slowly deconstruct the image that will create a simulated artificial face. It will allow to person to experience the possible futurist world we might live in.
- What would it be if you could control an insect? This interactive program will allow the user to control a spider by creating his own environment with webs in a 3D space. The program will question the possibilities of humans controlling nature that is around us and might be possible in the future.
- How can we sense our own cells? This idea is to create a 3D visualization of our cells that we can't see with our naked eye. Multiple 3D cells will be created to eventually use a 3D printer. It will to let viewer touch the cells that compose our human body.
- An experimental game that you must visit all the transit stations to win the game. To do that, the player needs to explore the space to find his way to different stations. This becomes a mind game that you experiment along the way.
- Drawing machine that listens to the audio input and draws the sound movement that we encounter in the air. It will allow the viewer to experience and see vibrations that our body encounters in the physical world.

- Interactive keyboard visualization of typography. Each key assigned to different animation that will enable the letters to move and experience beyond static typography that we witness daily.
- Visualization of flight patterns that enables the user to see how frequently we travel around the world. It will turn into an abstract visualization in which the user becomes part of the visualization that he witnesses different algorithmic connections.
- Computer generated music player that will let the user create and save his own sound patterns without buying any instruments, synthesizers, etc. It will allow the user to experience the music in the moment and directly use it on his computer.
- A 3D music visualizer that enables the viewer to experience the music in an interactive way without only using their ears. It will let the person be more aware and follow the rhythm of the music.
- What is randomness? How can a computer create randomness? Random patterns will be created and printed to make multiple experiments to investigate the boundaries of randomness. It is to the user to reflect on how can a computer think as a human by giving him instructions.
- Can sound vibrations deconstruct nature? Digital sound recorded from nature will
  process images that turn into a sound generated video to let the viewer experience
  the power of technology over nature.
- Could we perceive a magnetic field with our sense? This project consists of mathematical formulas integrated into code. As well, it will react to sound that will allow the viewer to experience those invincible magnetic fields with sight and hearing.
- A randomized music generator that enables to user to interact with the screen, but he is never able to create his own music. The computer selects random sounds that question who has the control and the conflict between the human and the computer.
- Scanning your finger prints on devices is a new technology, but what if we could read the data? Everything behind the device is unseen and uncertain if we can't see it. This project will let users scan their fingerprints and visualize the digitalized images of their information.
- What if the computer could draw your identity? The viewer's face is scanned by the camera and then draws a virtual portrait of you by questioning how real is a representation of that image? (generative art)
- Oceanic data that create a visual poetic adventure through sound and light. A
  projection on glass that will let the person immerse himself in a space where the
  person will sense movements through the water.
- A narrative display of a journey through the mind that consist of millions of neurons. It will let the viewer go through a visual and sonic perception of the human's brain that we can't witness with our eyes, but we can somehow feel inside of our body.
- How can a person determine what is difference between a virtual and real space?
   To research this process light and sound projected on transparent material with

- minimal geometrical forms that enable the person to connect the qualities of a virtual and real space.
- What if we could see infinity? This project will come to life with different principles
  of everyday and mathematical formulas to create visuals that combines a visual
  research and creation of infinity. It enables our sight and hearing to comprehend
  how this complex concept works.
- How can mathematics create illusion patterns? Each pattern will let the viewer question how the laws of mathematics are broken. Equations of multiple mathematicians will be tricked that create lines, dots and geometrical forms.
- A voice generator that creates a visual representation of the movement in space.
   The singer will be able to experience his voice with his sense of the perception. It becomes scientific research of how our voice travels and vibrates in space around us.
- How can a human transform himself into a machine? A mapped face tracking
  projection with visuals that will enable to question the relation between the human
  and the AI that we might encounter in the future.
- What would happen if you could see how the blood flows in your veins? A heart beat sensor will track the viewers pulse. Then, a visualization of blood motions in the body will be automatically generated by the sensor. It will let the person feel the inside of his body.
- What is a network? They are everywhere, from biology to technology. This
  research creation project tends to investigate our perception of networks from any
  angle a person comes form. It will allow the viewer to investigate the visuals of
  multiple patterns that construct the networks.
- A typography game that enables you to create your own randomized sentences.
  This game is made to generate words that can match together and make a
  sentence that might not necessarily make sense, but is entertaining and fun to
  experiment.
- A visual analysis of the most popular and trending hashtags on twitter for the day or the week. It will allow the person to get a visual representation what is happening on the twitter API.
- A two-player bowling game.
- A multiplayer RISK game. Similar to the board game.
- Interactive sound and light installation mapped on geometrical shapes that enables
  the user to control the visuals and the sound with their hands. The shape will be
  placed in a way to question our visual perception and dimensions of the
  geometrical shapes.
- Image processor that deconstructs the initial image with the data of the image imported. It will question the relation between the real and virtual construction of nature with references to post-internet.
- What if you could control particles? An interactive piece that enables the person to control each particle with predetermined functions by the user. It will allow the user to control something that is unperceivable with the naked eye.

- An interactive application that lets the user twist a key. Then, it creates patterns of Amazon shopping data. This piece will allow the user to see the daily consumption of materials of today's population.
- A drawing machine that will scan your face data and encode it into a visual representation. It will let the person become part of the application AI and technology.
- Wave game generator that you must replicate the same wave image to advance in the game. Each time you succeed, the image moves faster to you and the wave becomes more complex to draw.
- Puzzle game that the user creates a movement once for the creature. The movement is replicated until it eats all the food on the screen.
- A continuous and randomized representation of star patterns from the sky. These
  patterns and stars will be animated around a mapped drawing
- 3D geometrical shapes made of glass that are animated to give life to physical objects. This concept questions how the physical world could become part of our daily mediated life.
- A virtual reality game that makes you run and catch different elements. Those elements are feeding you to live longer and escape the apocalypse.
- A block game in which the player must put every block in the hole with multiple obstacles in the way.
- A user that puts geometrical shapes on the screen to fill completely the visual platform. As the level increases, the geometrical shapes get more complex.
- Photographs of patterns with mathematical formulas that let the viewer visualize how mathematics are generated on a paper.
- Deconstructed sound and visuals that track in real time the body of someone's performance.
- What is noise? This looping animation will create a visual and sonic conception of how noise is perceived and movements in our world.