

# **PROGRAMMING AND ART**

**Data Visualization and Beyond**

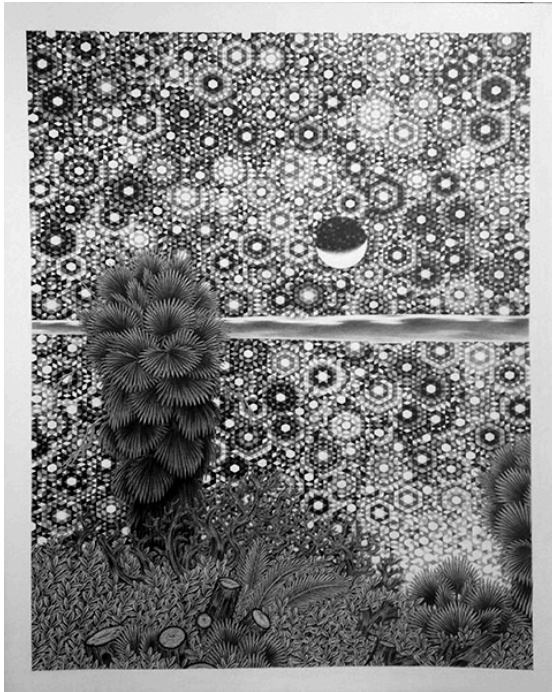
**MARGARITA DANIELYANTS**

**ART185GL**

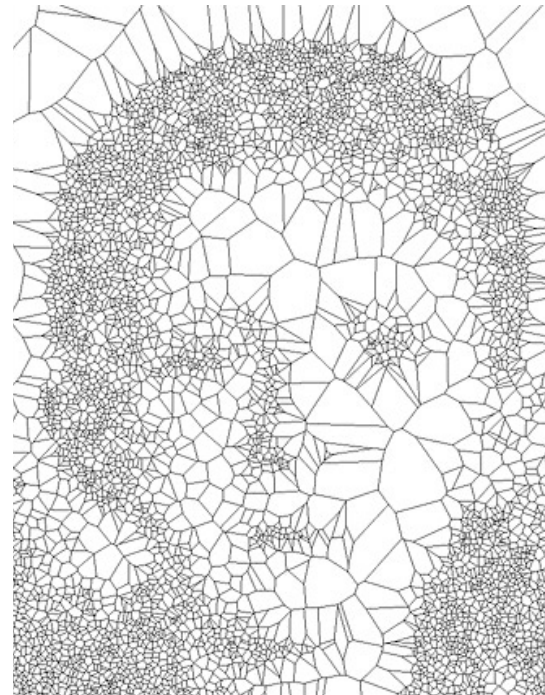
# PROGRAMMING

What is and is not art?

“craft plus a special degree of inspiration”



**Analog** – Graphite on Bristol



**Digital** - Computation

# PROGRAMMING

- A creative act, involves aesthetics
- Efficiency and a vision

```
function representFeaturedLabels (labels) {  
  // Remember smallest and second-smallest indices  
  var firstIndex = -1, secondIndex = -1;  
  var html = "";  
  for (var i = 0; i < labels.length; i++) {  
    // Is this label smaller than the current second-smallest?  
    if (secondIndex == -1 || labels[i] < labels[secondIndex]) {  
      // Is this label also smaller than the current smallest?  
      if (firstIndex == -1 || labels[i] < labels[firstIndex]) {  
        // This label is the smallest, so (re-)represent  
        html = "<div><span>" + labels[i] + "</span> <span>" +  
          labels[secondIndex] + "</span></div>";  
        firstIndex = i;  
      }  
    }  
    else {  
      // Replace the current second-smallest label  
      html = html.replace(labels[secondIndex], labels[i]);  
      secondIndex = i;  
    }  
  }  
  return html;  
}
```



# **PURPOSES**

- **Communicating information of all sorts**
- **Aesthetically pleasing – easier for viewer to be engaged**
- **Implemented anywhere from science to graphic design**
- **A realm of art on its own**
- **Plays into visual perception and cognition**

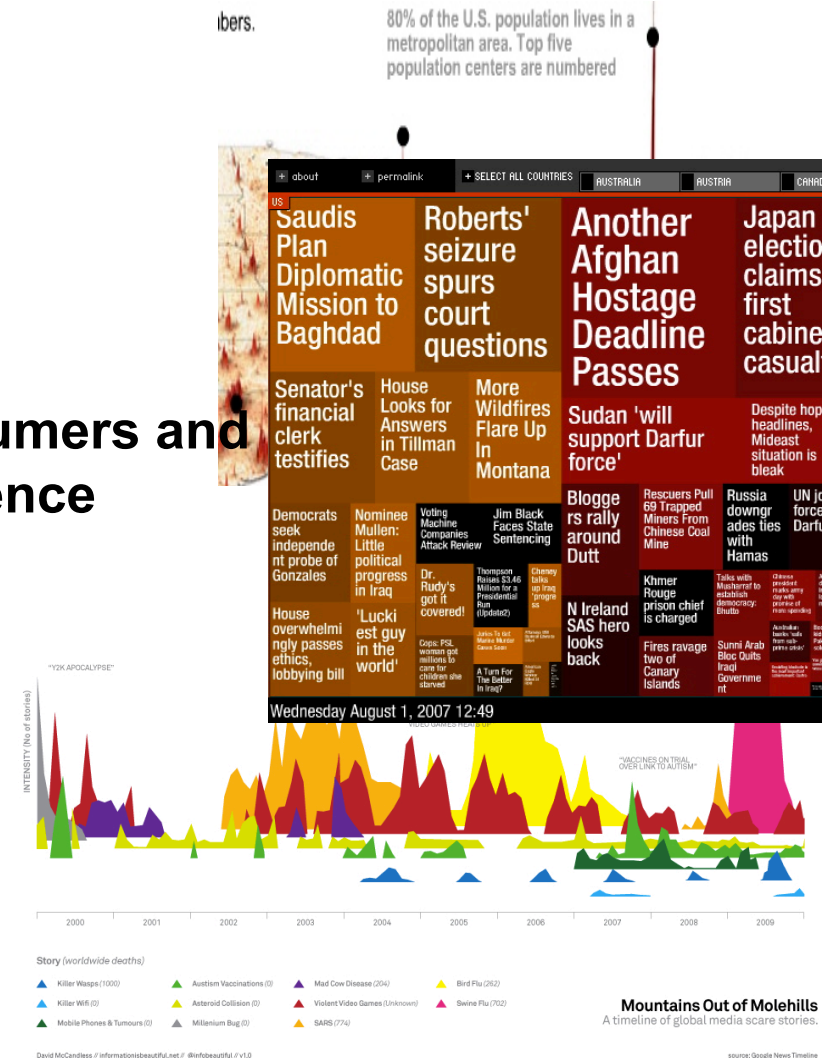
# DATA VISUALIZATION

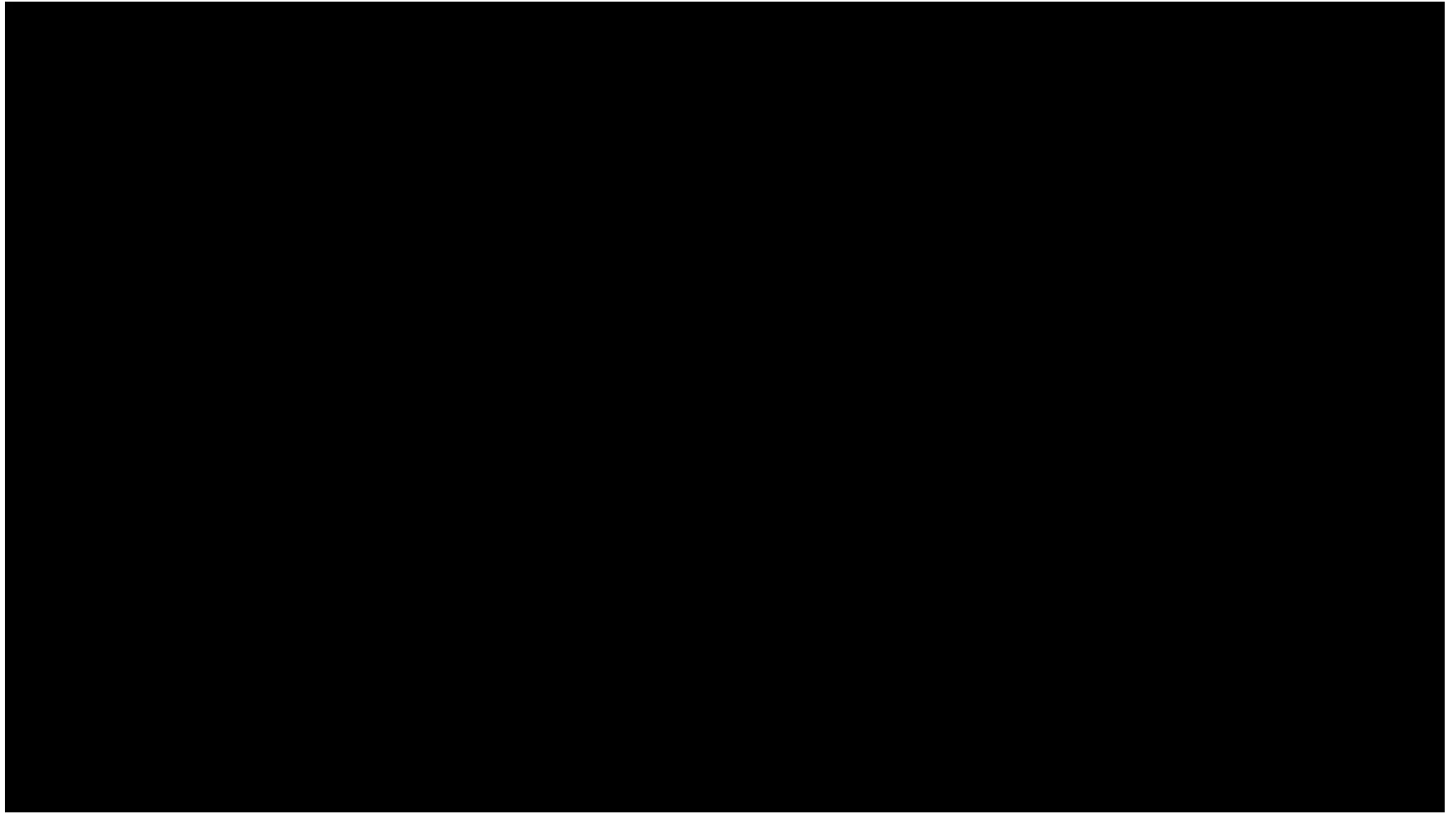
Can be conveyed through various visual outlets

Data, histograms, data connections

Providing new experience for consumers and observers with a new visual experience

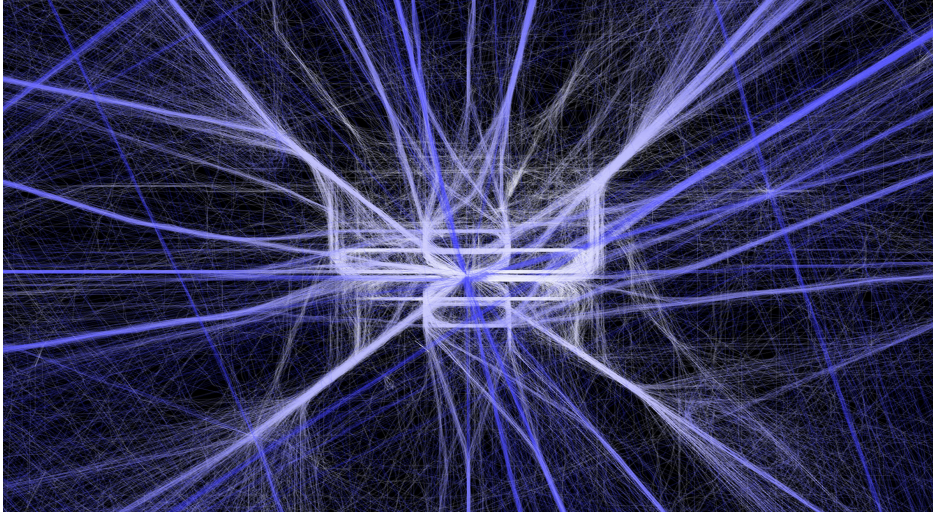
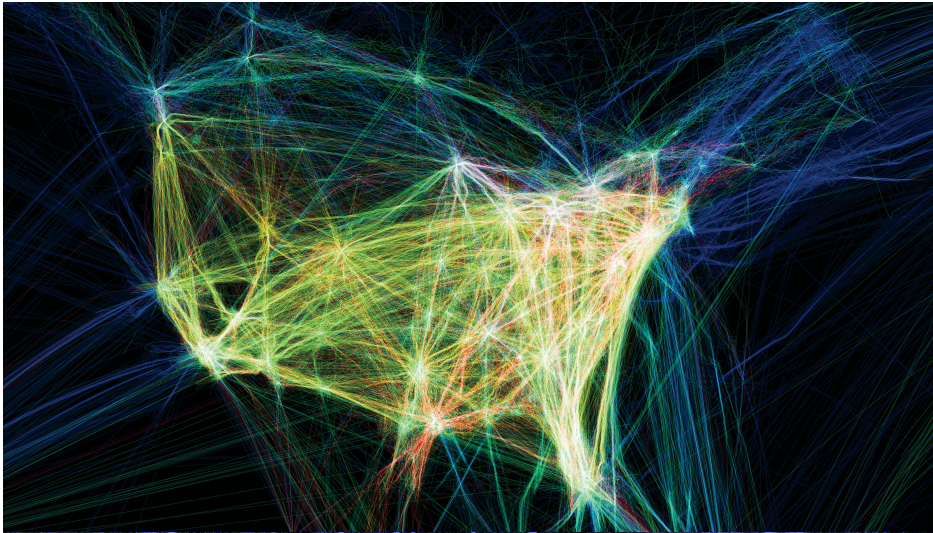
Jer Thorp: the ultimate goal is to explore the human side of data.  
“design has a really interesting role of bridging that gap and making data more human”





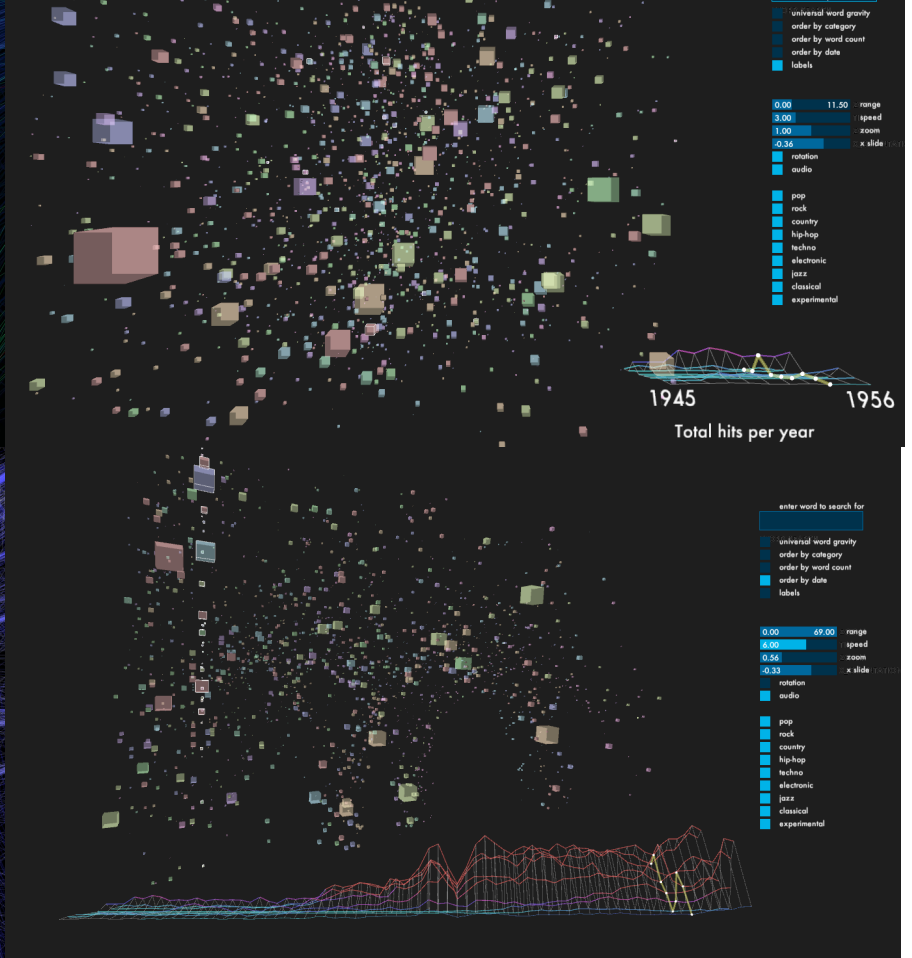


# DATA VISUALIZATION

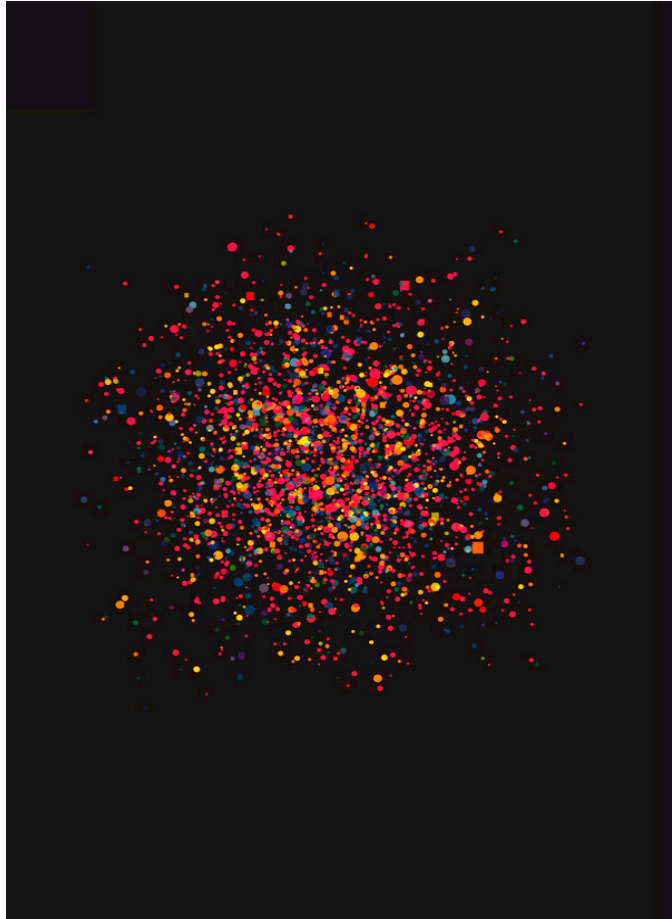


## Music Journalism Timeline

A collection of New York Times articles about music, structured by genre.



# WE FEEL FINE



**An exploration of human emotion on a global scale**

- **Harvesting human feelings from a number of weblogs using phrases “I feel/ I am feeling”**

**Self organizing particle system**

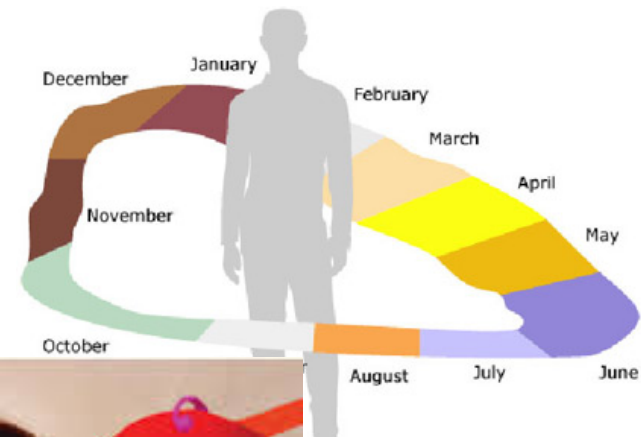


# SYNESTHESIA

Perceiving more than one sensory pathway at a time

**Spatio-temporal synesthesia**

space and time



**Chromesthesia**

sound and color

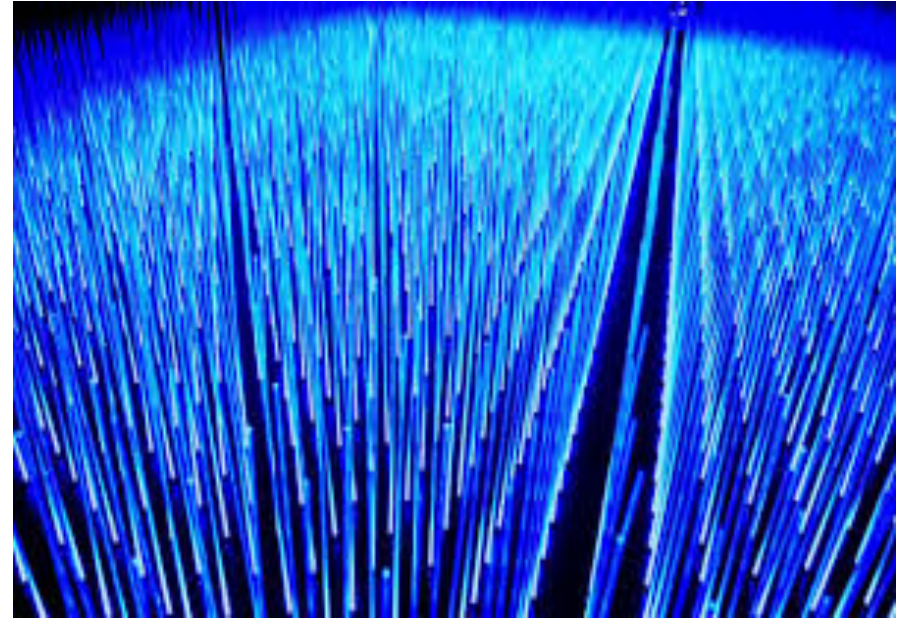


# APPLICATIONS



**Oefner, Dancing Colors**

vibrations



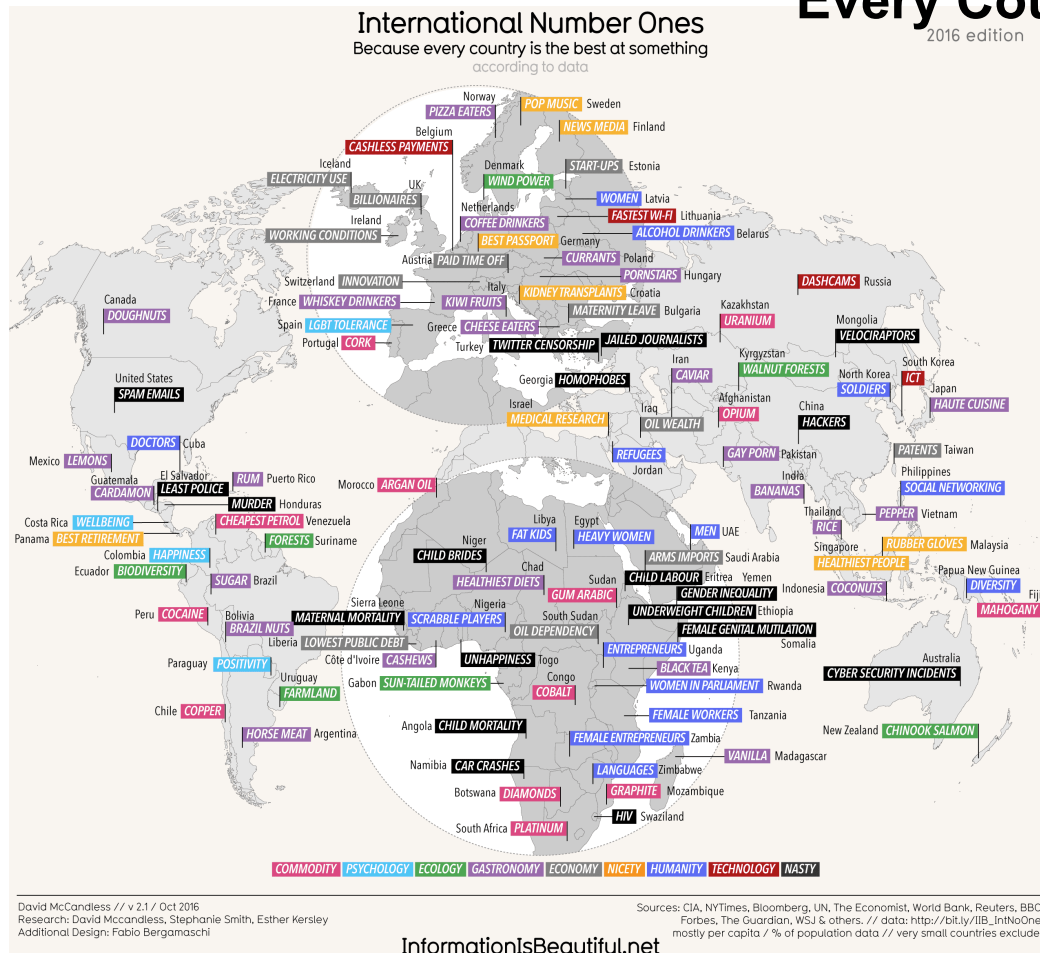
**Oefner, Field of Sound**

movement

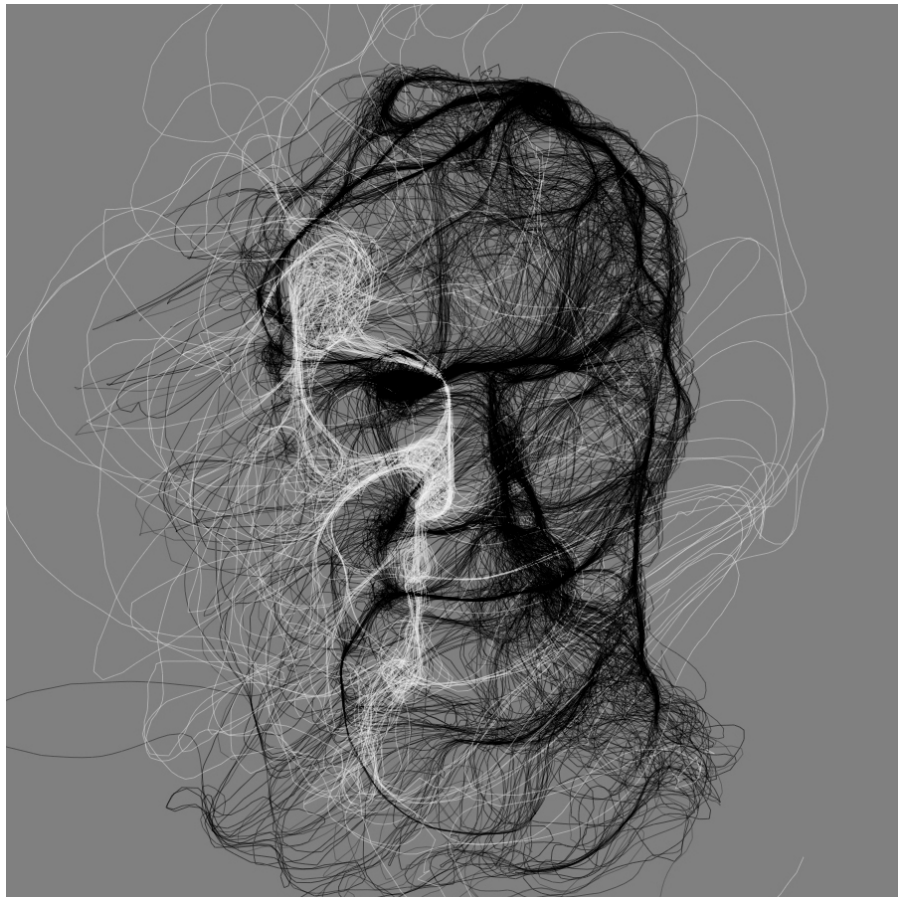
# DAVID MCCANDLESS'S WORK

“data is a fertile, creative medium”

Every Country is Best at Something



# GOLAN LEVIN





# INTERSTITIAL FRAGMENT PROCESSOR

Interstitial Fragment Processor

Interactive installation by Golan Levin  
Denver Art Museum, February 2011  
[www.flong.com](http://www.flong.com)



# SOURCES

[https://ericbeltz.com/adam/pages/nsky\\_palm\\_jpg.htm](https://ericbeltz.com/adam/pages/nsky_palm_jpg.htm)

<http://www.flong.com/projects/zoo/>

[https://www.mat.ucsb.edu/~g.legrady/academic/courses/17w259/17Design\\_basics.pdf](https://www.mat.ucsb.edu/~g.legrady/academic/courses/17w259/17Design_basics.pdf)

<https://www.smashingmagazine.com/2007/08/data-visualization-modern-approaches/>

<http://vislab.mat.ucsb.edu/>

<http://www.flong.com/projects/floccus/>

<http://fabianoefner.com/projects/dancing-colors/>

<http://fabianoefner.com/projects/field-of-sound/>