

# Data as Art

The art of data collection, visualization, and sonification

Kelsey Brod, Computational Media, Arts and Cultures PhD Candidate, Duke University, Feb. 8 2024

## Reminders

- Hi, I'm Kelsey Brod, Computational Media, Arts and Cultures (CMAC) PhD Candidate here at Duke.
- Project Lead TA
- Reminders: HW1 regrade requests are due by Sunday, project proposals need to be updated from peer review feedback by

Friday at 5pm, and HW2 is due  
Tuesday at 5pm

- (This lecture material is not a test nor will it be a part of grading... but hopefully it will get you thinking about the "art" of data)

What my job has taught me over the years is that to really understand data and their true potential, sometimes we actually have to forget about them and see through them instead. Because data are just a tool we use to represent reality. They're always just a placeholder for something else, but they are never the real thing.

Giorgia Lupi, “How we can find ourselves in data,” TED Talk (2017)

[REDACTED] GTMO Page 1

b6 -1  
b7C -1

From: [REDACTED] b6 -1  
To: [REDACTED] b7C -1  
Date: Mon, Dec 9, 2002 10:46 AM  
Subject: GTMO

b6 -1 [REDACTED]  
b7C -1 It was good to talkwith you the other night . I look forward to reading your response to the outlandish accusations made by the inspectors and [REDACTED]

b6 -1  
b7C -1 Attached are two documents- 1) a one-page description of a matter concerning interview/interrogation which we spoke to the Commanding general about.  
and 2) An outline of the coercive techniques in the military's interviewing tool kit.

I will also send our Interview Plan for Detainee [REDACTED] When I return to D.C., I will bring a copy of the milotary's interview Plan....You won't believe it!

b6 -1 [REDACTED] b6 -3,4  
b7C -1 b7D -1  
b7F -1

# Jenny Holzer, Redaction Paintings, 2005-

**4ID 104MI ICE**

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**From:** [REDACTED]  
**Sent:** Thursday, August 14, 2003 11:26 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]

b6 b7c2

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**Subject:** RE: FW: Taskers

This image shows a scanned document page with several redacted areas. At the top left, there is a redacted box with the handwritten number "674-566-0" written above it. To the right of this is the text "0137-04-CID899-81702". The left half of the page contains a large black rectangular redaction. On the right side, there is a vertical column of text. Above this text, the handwritten number "7c2" is written vertically. Below the text, there is another large black rectangular redaction. At the bottom of the page, there is a small redacted area followed by the handwritten number "6621". The bottom center of the page has the text "DODDOACID-005236".

on our ability to gather intelligence. Our interrogation doctrine is based on former Cold War and WWII enemies. Today's enemy, particularly those in SWA, understand force, not psychological mind games or incentives. I would propose a baseline interrogation technique that at a minimum allows for physical contact resembling that used by SERE instructors. This allows open handed facial slaps from a distance of no more than about two feet and back handed blows to the midsection from a distance of about 18 inches. Again, this is open handed. I will not comment on the effectiveness of these techniques as both a control measure and an ability to send a clear message. I also believe that this should be a minimum baseline.

Other techniques would include close confinement quarters, sleep deprivation, white noise, and a litany of harsher fear-up approaches...fear of dogs and snakes appear to work nicely. I firmly agree that the gloves need to come off.

V/R

b62/7c2

— Original Message —

From: [REDACTED]  
Date: Thursday, August 14, 2003 2:51 pm  
Subject: FW: Taskers

b62/7c2

> Sounds crazy, but we're just passing this on.  
>  
> —Original Message—  
> From: [REDACTED]  
> [mailto:[REDACTED]]  
> Sent: Thursday, August 14, 2003 1:15 PM  
> To: [REDACTED]  
> Cc: [REDACTED]  
> Subject: Taskers  
>  
>  
> ALCON  
>  
> Just wanted to make sure we are all clear on the taskers at hand  
>  
> 1- A list identifying individuals who we have in detention that  
> fall under  
> the category of "unlawful combatants" I've included a definition  
> form the  
> SJA folks:  
>  
> In order to properly address your request for a legal definition of  
> the term "unlawful combatant," I must first provide you with a  
> framework of definitions with which to work. According to the Law  
> of Land Warfare,  
> the term "combatant" is defined as anyone engaging in hostilities  
> in an  
> armed conflict on behalf of a party to the conflict. Combatants are  
> lawful targets, unless out of combat. With that said, "lawful  
> combatants" receive protections of the Geneva Conventions and  
> gain combat  
> immunity for their warlike acts, as well as become prisoners of  
> war if  
> captured. In comparison, "unprivileged belligerents," commonly  
> referred to as "unlawful combatants," may be treated as criminals  
> under the  
> domestic law of the captor. Unprivileged belligerents may  
> include spies,

b62/7c2

b62 7c2

61

2

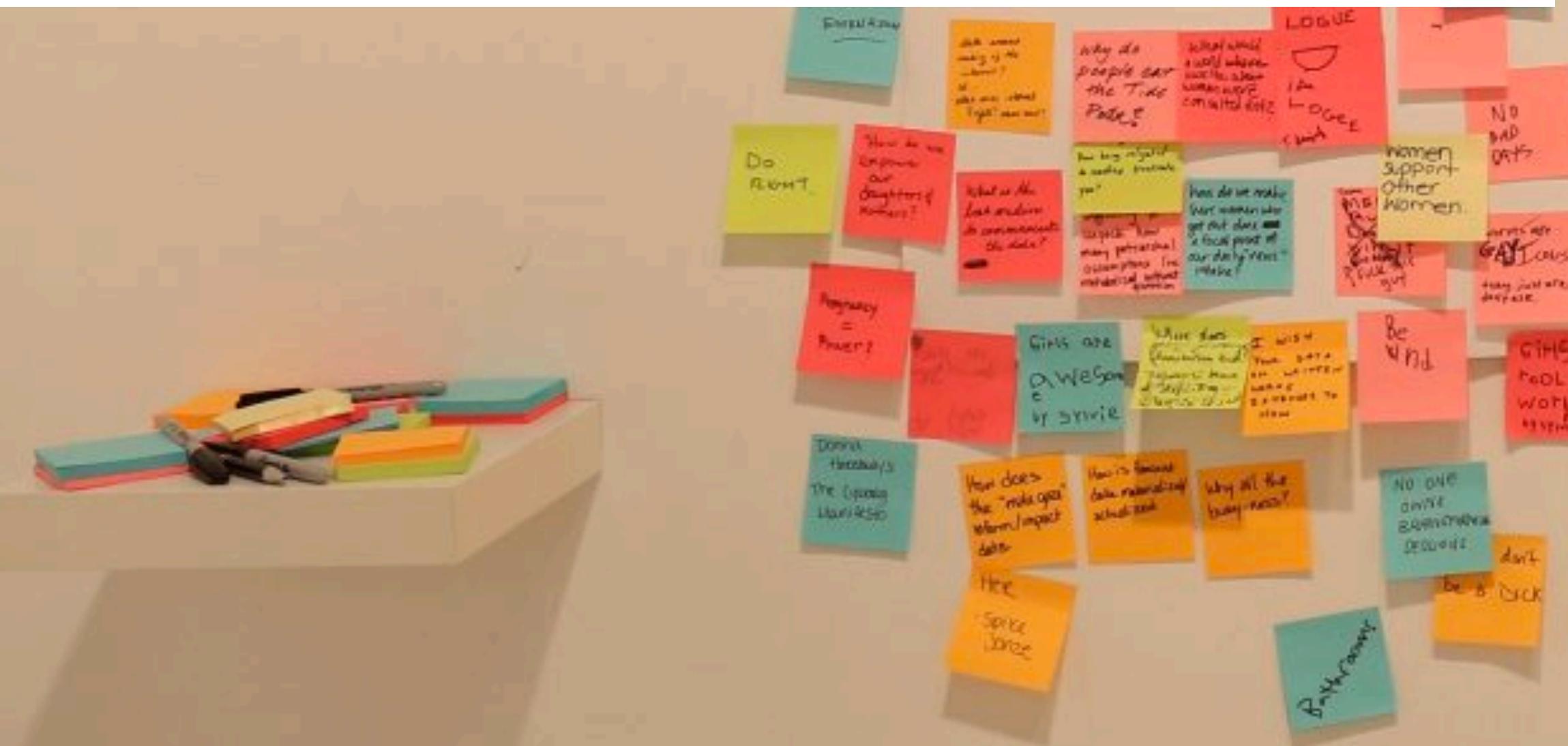
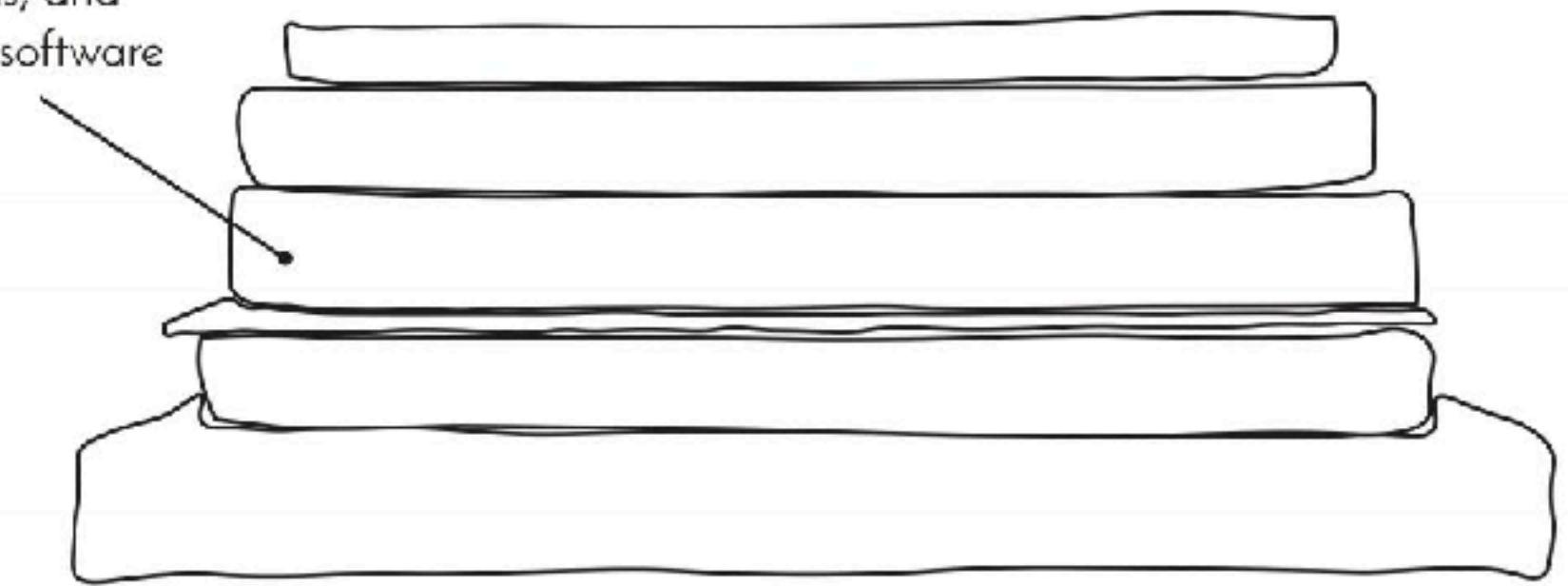
6622

## **Questions for today**

- What is data?
- How is the collection, curation, and presentation of data like an art?
- How can data be used to communicate material, process, and means rather than just an end?

Data is cultural; it can be words, texts, images, sounds, and books.

words, conversations, and poetry are data in software



Caroline Sinders, Feminist Dataset (series of workshops), 2018 -



Caroline Sinders, Feminist Dataset (series of workshops), 2018 -

Feminist Data Set is a multi-year project that interrogates every step of the AI process that includes data collection, data labeling, data training, selecting an algorithm to use, the algorithmic model, and then designing how the model is then placed into a chat bot (and what the chatbot looks like) through intersectional feminism as an investigatory framework. Every step exists to question and analyze the pipeline of creating using machine learning—is each step feminist, is it intersectional, does each step have bias and how can that bias be removed? Really, what does it mean to think through every step slowly and thoughtfully; metaphorically, can we think of this as farm to server table, as slow data and consensual data?

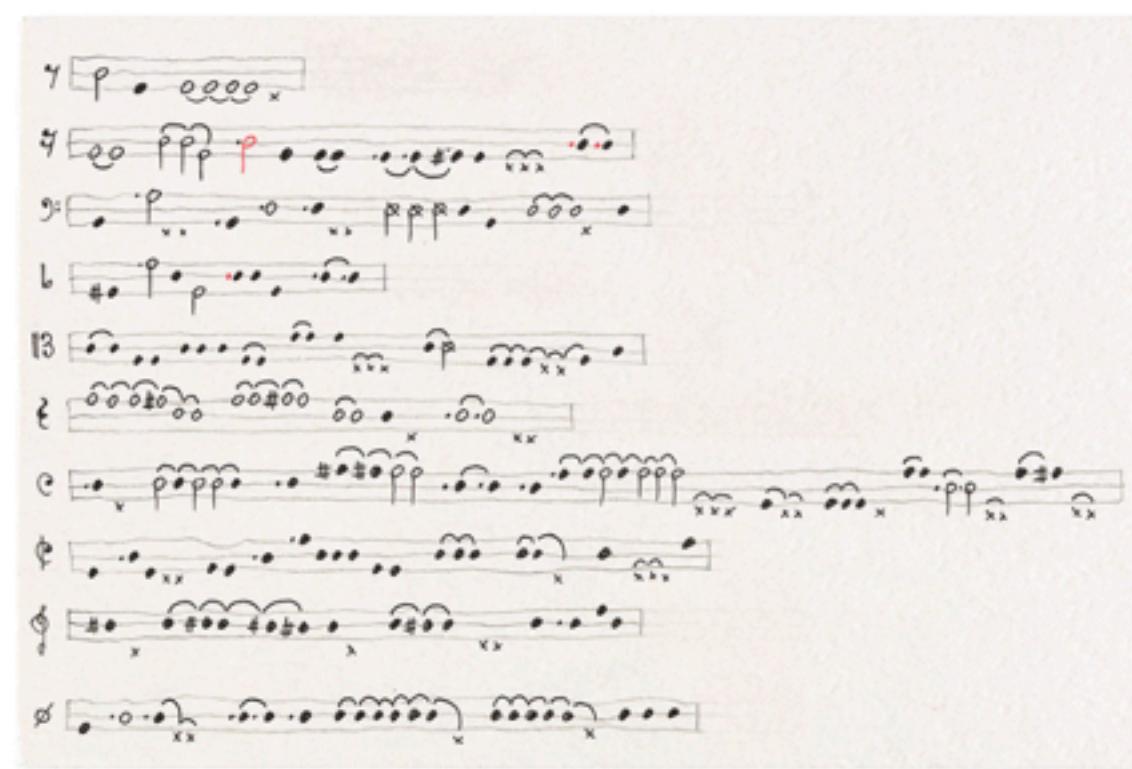
Caroline Sinders

## Exercise

1. Observe the room or a part of the room. Create at least 2 variables, create a classification system for the observations, and record the observations. (5-10 minutes) Note: following the sentiment of consensual data, do not classify and record people in the room.
2. What did you choose?
3. What potential problems did you run into?

GIORGIA

WEEK SEVEN



**"DEAR DATA**  
WEEK OF: MUSICAL COMPLAINTS

**HOW TO READ IT:** Each "note" is a single complaint I said. (i.e. every single time I expressed dissatisfaction or annoyance about a situation or particular thing.)  
Each "score" represents a **typology** of things I complained about, featuring complaints in chronological order.

**SCORES:**

- HE ALREADY (e.g. "I don't... ugly / depressive")
- HE AT HOME (e.g. "I should've done...")
- WORK (e.g. "this project isn't going well!")
- FRIENDS (e.g. "the summer is not working!")
- FAMILY / FOOD (e.g. "our meal is so slow!")
- SOMEBODY (e.g. "He's really a jerk...")
- COLD (e.g. "I am freezing! the A.C. is crazy!")
- HOW I FEEL (e.g. "so tired!?", "so bored!?", "so...")
- BOYFRIEND (e.g. "you're cheating! you haven't...")
- OTHER (e.g. "I spent 1 hour waiting for...")

**POSITIONS OF NOTES:**

- 1 → ACTUAL need to complain
- 2 → average = "
- 3 → NORMAL = "
- 4 → MISSED COMPLAINTS: Thought of complaining, but didn't do!

**ATTRIBUTES:**

- to boyfriend
- to friend, family
- to strangers
- in english (and others were in ITA)
- visit + / email (digital life)
- adding EMPHASIS
- close in time, same situation
- P to Stefanie @ -
- about something related to DEAR DATA

**DELIVERED BY HAND (SPECIAL NYC DELIVERY!)**

What better visual reference than a musical score to show the repetitiveness of Giorgia's protests and the "level" of complaint: whether they are justified or totally out of place.



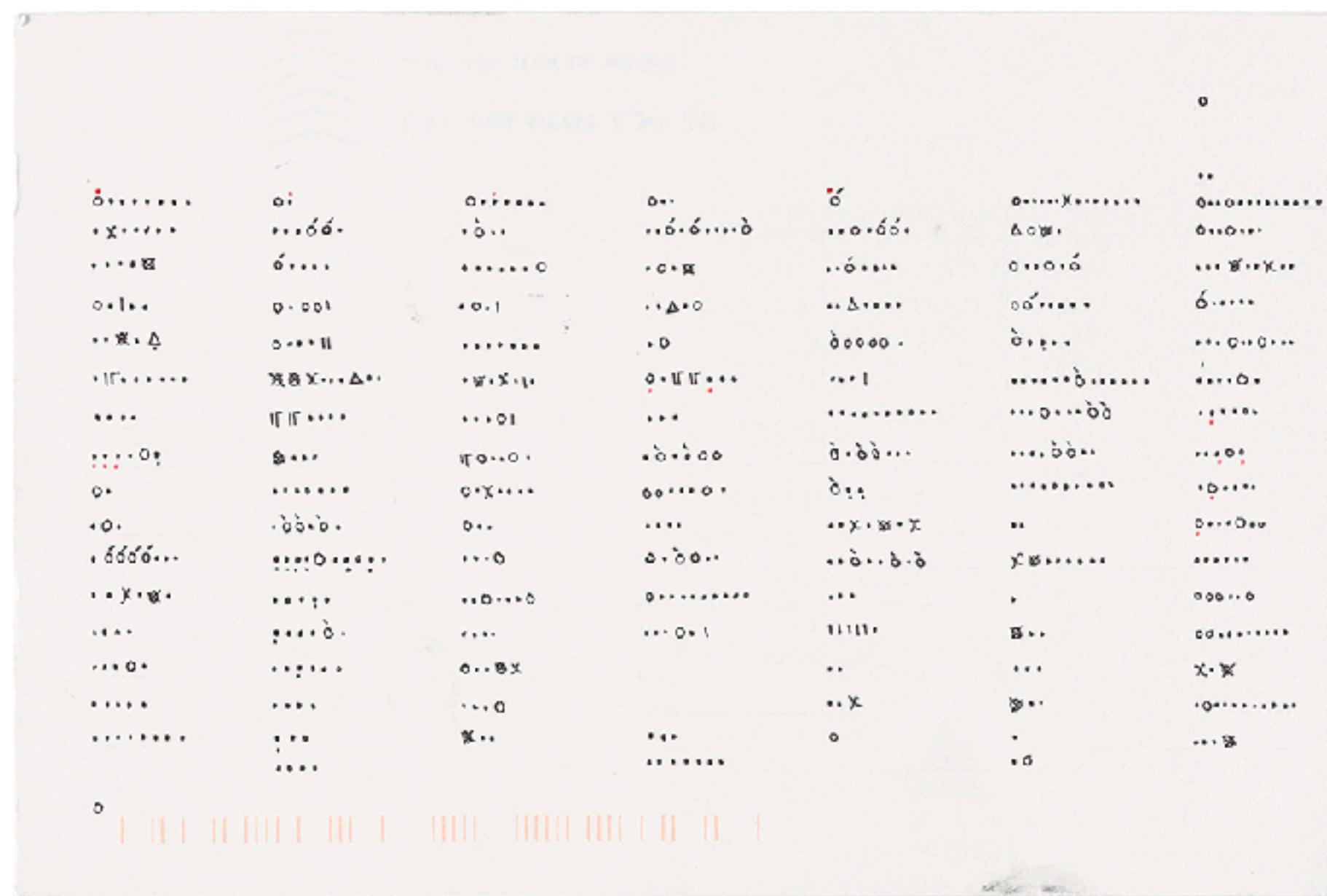
COVER BY GIORGIA

A WEEK OF COMPLAINTS

Stefanie



Giorgia Lupi and Stefanie Posavec, *Dear Data*, 2015

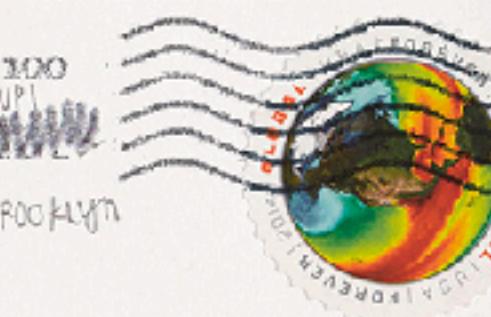


DEAR DATA  
WEEK 01: WHAT'S THE TIME?

SECOND ATTEMPT!

07 OCT 2014

NEW YORK NY 100  
GIORGIA LUPI



### HOW TO READ IT:

Each symbol represents every moment I glanced at the clock, grouped by hours of the day.

Different symbols and attributes represent why and how I checked the time.

### SYMBOLS

o on purpose: wanted to know what the time was.

\* just glanced: on a phone, mac or else

\* Because I thought of this project.

x I thought it don't look on But I did.

! Because I was bored

! Because I was hungry

A Heard somebody saying the time already. 0012280001

### ATTRIBUTES

! f\*ck! I'm late!

! oh, ok. I'm fine.

\* analog support (i.e. wrist watch)

\* alarm clock rang.

\* glanced at the clock while testing or emailing with Stefanie. ☺

### SEND TO:

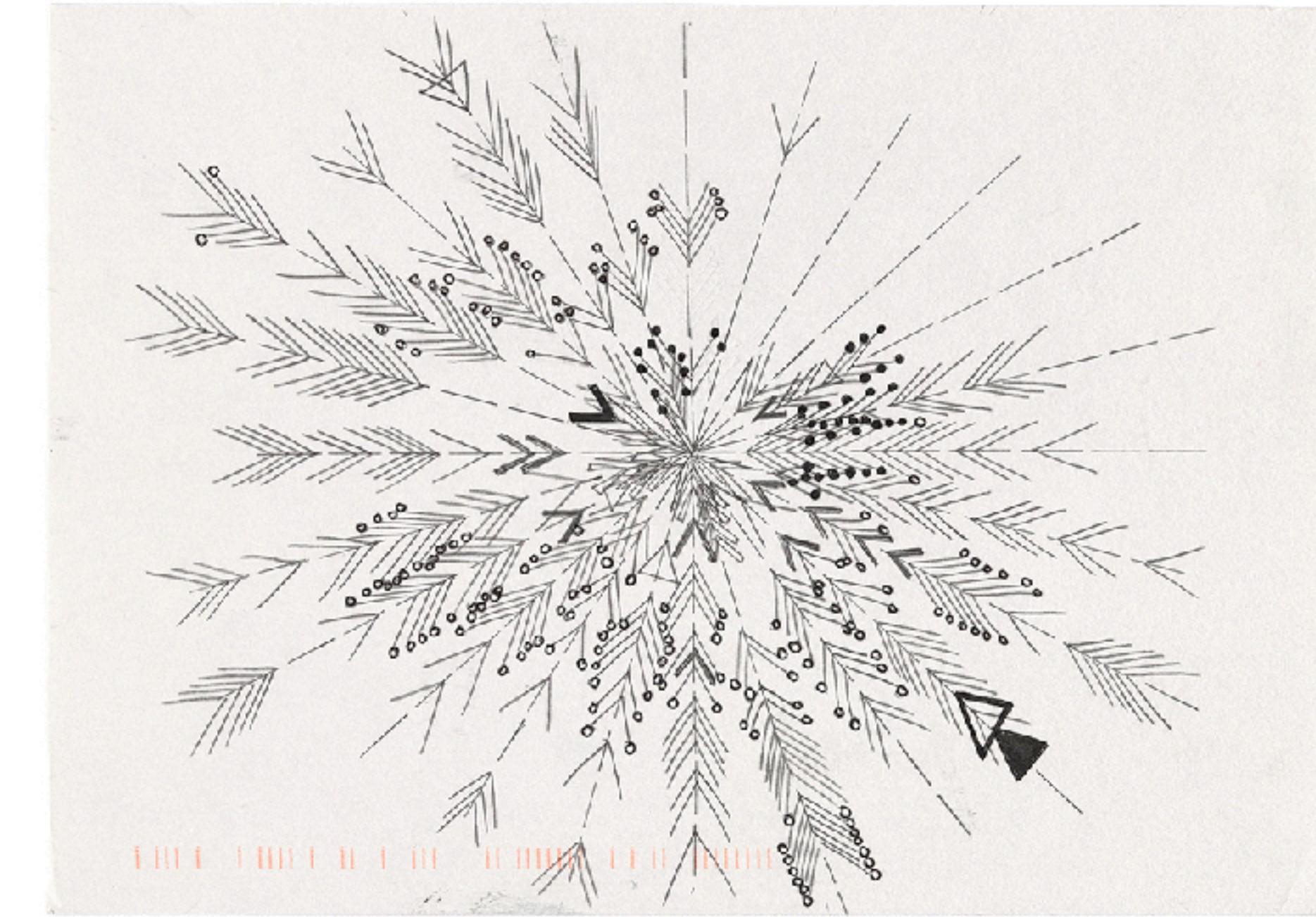
STEFANIE POSAVEC

LONDON

[UK]  
ENGLAND

Drawing her first postcard, Giorgia had an idea for her whole collection: from now on every time she tracks something related to Stefanie, or to Dear Data, she uses a special pen to represent it!

\* pink ink pen!

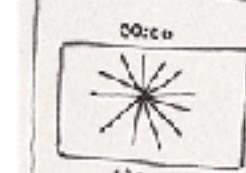


DEAR DATA : WEEK 01:

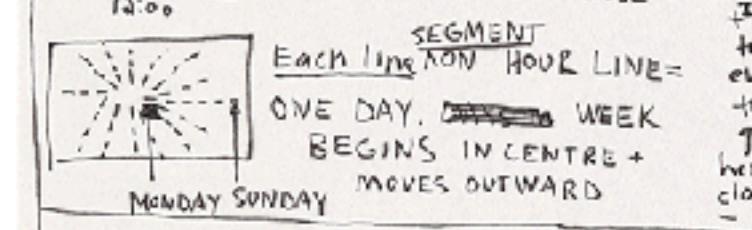
### A WEEK OF CLOCKS

Hi Giorgia! Still getting used to drawing again; hope I get better! Lots of the car radio clocks at 4 am are because I had to leave early to fly back

#### LEGEND



EACH LINE = ONE HOUR OF THE DAY, MOVING CLOCKWISE



other insights I've learned:  
I'm addicted to my phone. I always check the time in bed even before the alarm goes off, hence the 3 AM clock-watching. - Stef

AN INSTANCE OF CLOCK-WATCHING IS INDICATED BY A SYMBOL:

	SYMBOL	TOTAL INSTANCES	CAR	SYMBOL	TOTAL INSTANCES	FRIDGE
PHONE	▲	151	MICROWAVE	▲	22	1
LAPTOP	○	84	FRIEND'S OVEN	△	1	1
TABLET	○	10	HUSBAND'S PHONE	△	1	1
HUSBAND'S PHONE	○	3	WATCH	△	1	1
WATCH	○	11				

1124985282

BY AIR MAIL  
par avion

Royal Mail®

This week Giorgia and Stefanie tried gathering data in small notebooks (tedious), but soon switched to making notes on their phones (much easier). Stefanie's favourite clock to capture: a bell tolling the time in a town in Devon.

## Exercise part 2

1. Think about how you will represent your data. Start to make sketches either in RStudio or by hand. (5-10 minutes)
2. How are you choosing to represent your data and why? What meaning is the aesthetic bringing to the data?

# Graphing with metaphors



## 1. DEEP DIVE

Hard cash is only a tiny fraction of Bezos' enormous wealth.



Cash: \$15.6 billion

Private assets (e.g., Blue Origin): \$9.15 billion

Publicly traded assets (e.g., Amazon stock): \$147.25 billion

Mona Chalabi's Pulitzer Prize winning series, 9 ways to Imagine Jeff Bezos' Wealth, 2023

## Exercise part 3

1. Can you visualize your data using a metaphor? (5 min)



Mark Hansen and Ben Rubin, Moveable Type, lobby installation in the NYT building, 2007



## Data as world-building

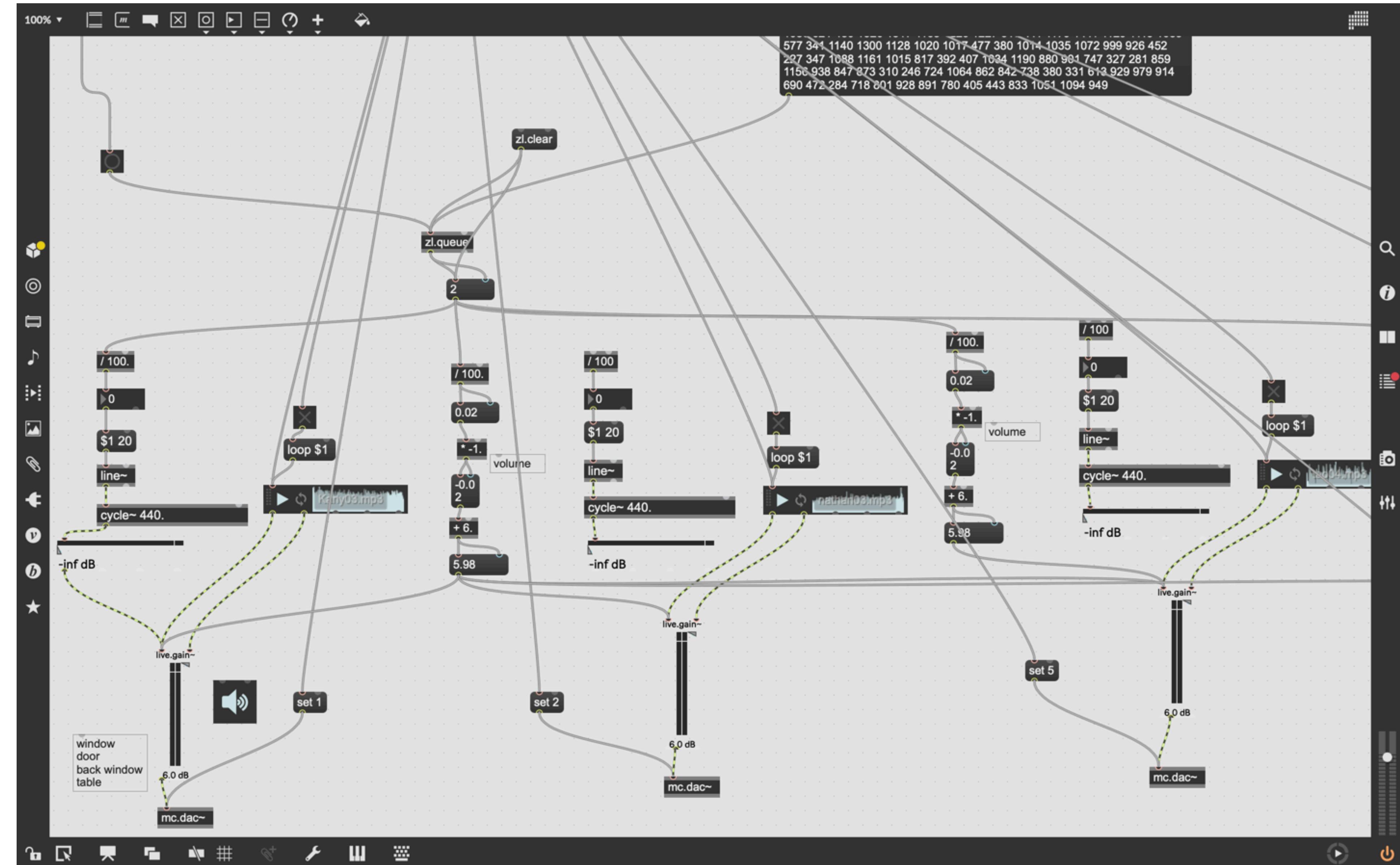


Kelsey Brod, Untitled (reported North Carolina Covid-19 death increases as wind in the trees), Unity open world game, 2021.

## Data as sound



Kelsey Brod, Untitled (reported North Carolina Covid-19 death increases as wind in the trees), Unity open

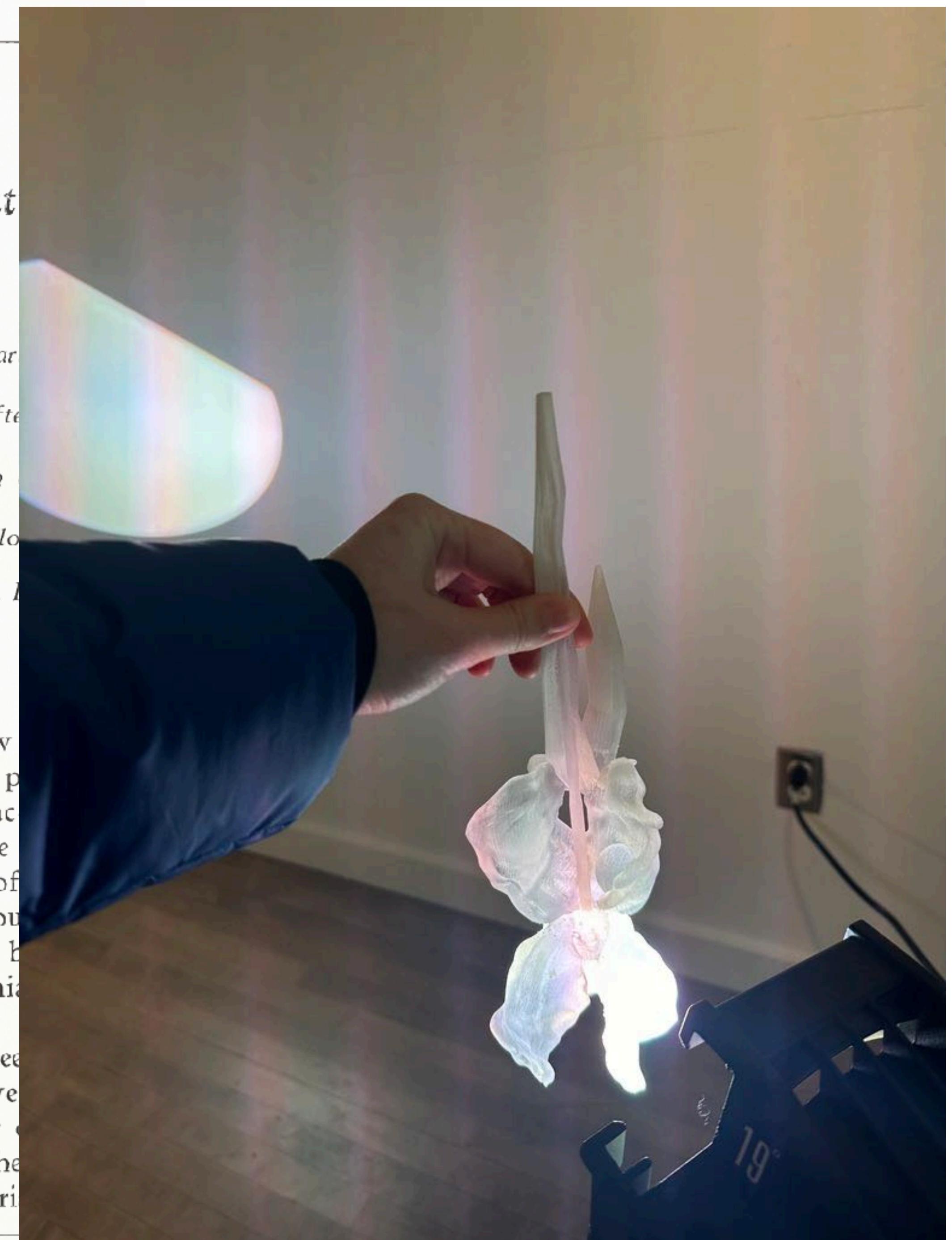


Kelsey Brod, Untitled (four audio channels), 2021 (image of process with software Max)

## Iris data and classification



The Iris...  
f Garden Beaut



be a welcome flower in your garden—  
especially if you are seeking plants which