

Digital Distancing

<https://jackadam.cc/thesis>

Digital Distancing is a senior project in Computing & the Arts at Yale University by Jack Adam.

The project considers the relationship between distance and technology in the era of social distancing in order to define a framework for understanding ourselves through our data. It is comprised of a journal, a pair of data collection and extraction tools, visualizations of this data, and two video artworks.

Digital Distancing: Proposal

The project exists in the shadow of the 2016 GDPR (General Data Protection Regulation)* and is aware of the changing relationship we have with our data.

*The reason websites suddenly began alerting you to their use of cookies

We can now VIEW, DOWNLOAD, and DELETE our data.

But have we become any more in control of our digital footprint?*

*It's complicated

I propose two tools:

1. Tracker, which records a user's mouse and in-use application.
2. Tracer, which extracts Exif metadata [such as timestamps and coordinates] from (smart-phone) images.

Each tool produces three distinct visualizations.

Planning these tools left me with several overarching questions:

What does it mean for data to have a ‘function’ or ‘purpose’—and who defines this?

What makes data ‘personal’?

Is there an element of arousal or fun in the process of data collection and extraction?

And, as we socially distance and learn to be hyper-aware of how we move through public, physical spaces, how are we (re-)learning to move through our private, digital spaces?

Digital Distancing: Journal

10 entries over 3 months.

Each entry considers ‘distance’ in context:

- 08.14.20 18:13 Distance in Nature
- 08.28.20 14:05 Distance in the City
- 10.09.20 23:48 Distance as Permission
- 10.14.20 21:15 Distance from the Body
- 10.17.20 18:84 Distance as a Hallway
- 10.18.20 23:50 Distance between Technology and the Body
- 10.21.20 00:42 Distance and the Abstraction of Functionality
- 11.06.20 16:01 Distance as Paths and Maps
- 11.07.20 23:32 Distance in and Around the Home
- 11.21.20 01:56 Distance in Dreams and in the Digital

Each entry tells stories, draws conclusions, and makes claims about the questions raised in the proposal.

Alongside the journal are collected images that change as a user scrolls through the entries.

Digital Distancing: Tracker

Tracker Grapher Mapper Reader

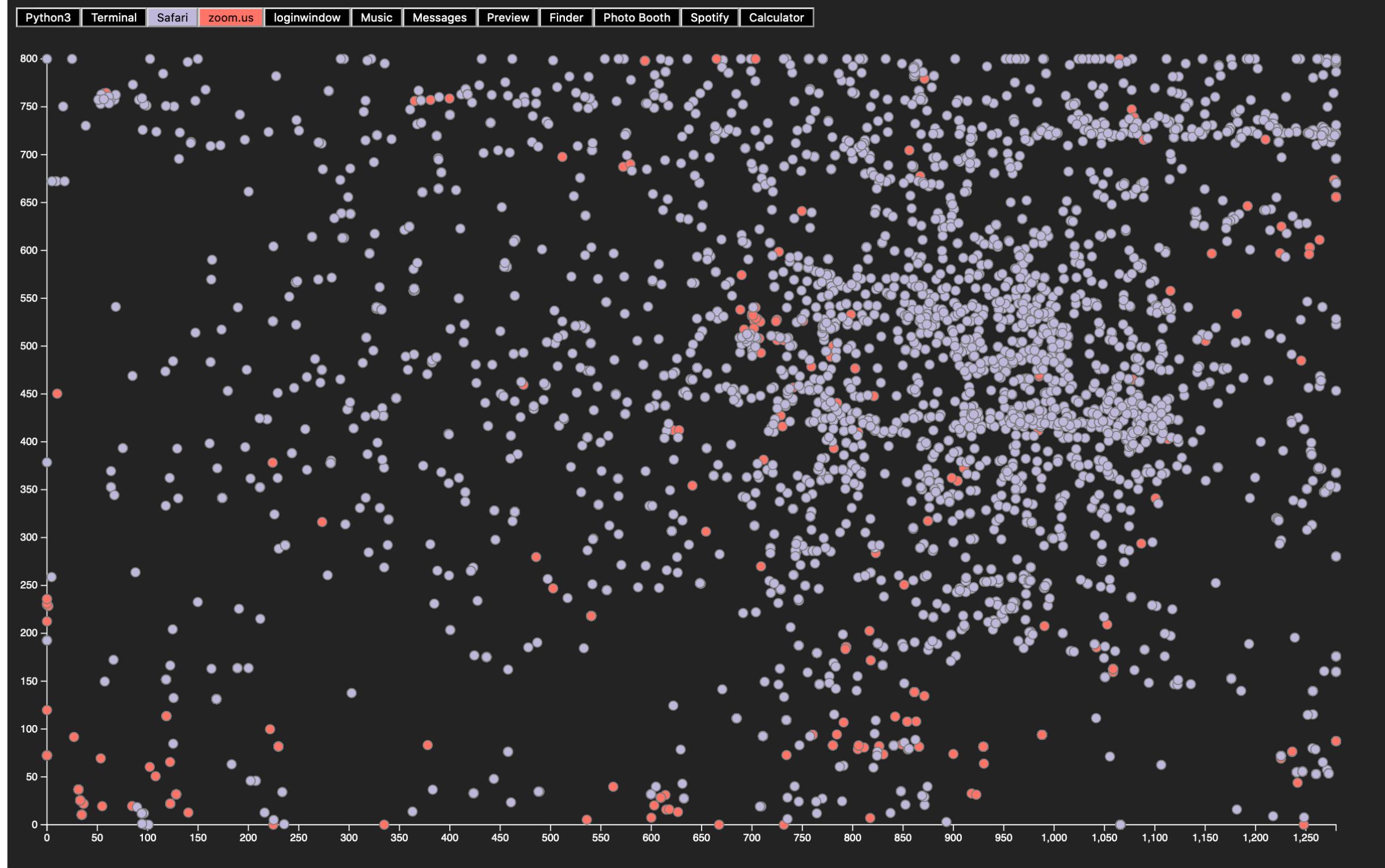
Grapher: scatterplot that plots the precise X and Y coordinates of a user's mouse, ignoring time.

Allows for connecting, animating, inspecting

Digital Distancing: Tracker

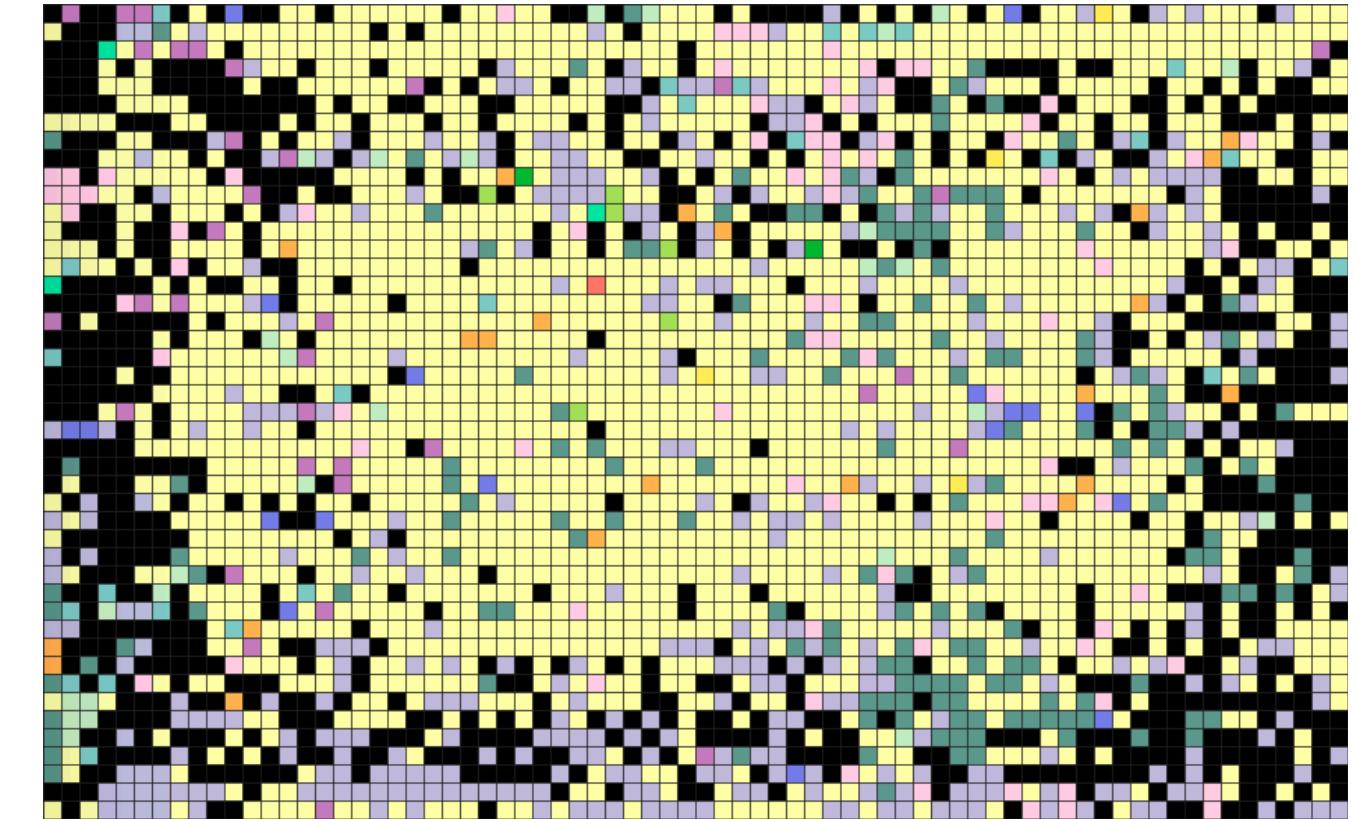
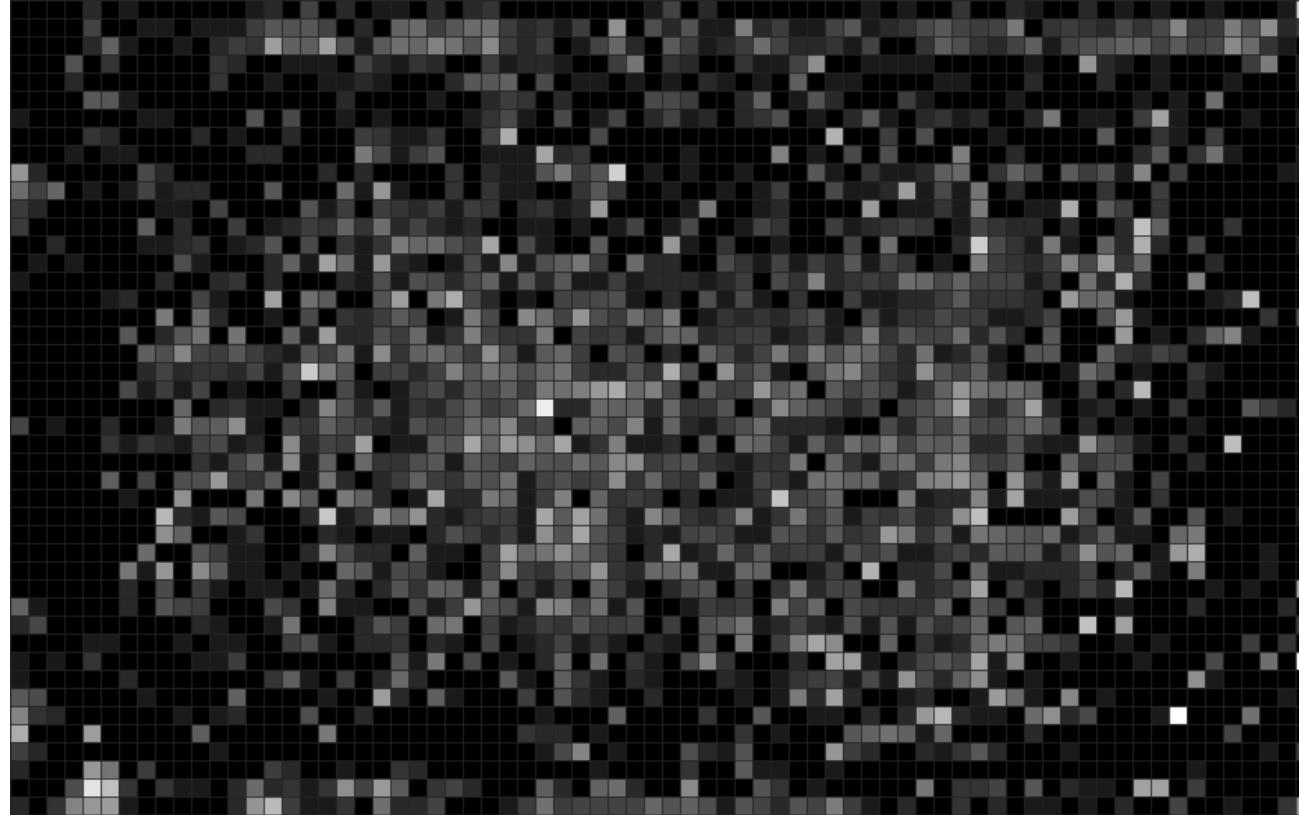


Digital Distancing: Tracker

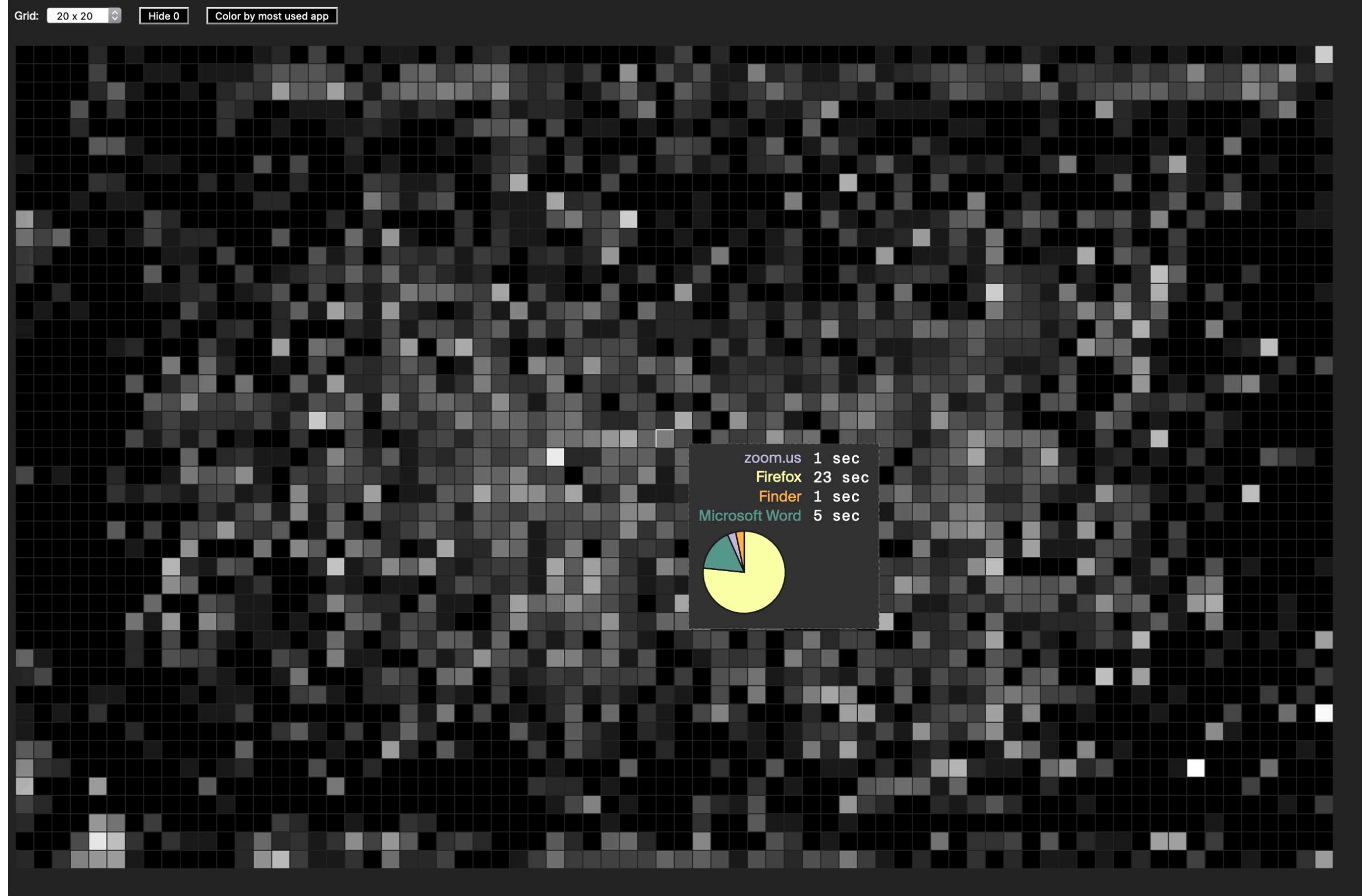


Mapper: heat-map that generalizes coordinates into quadrants.

Allows for scaling, re-sizing, re-layering, and discovering



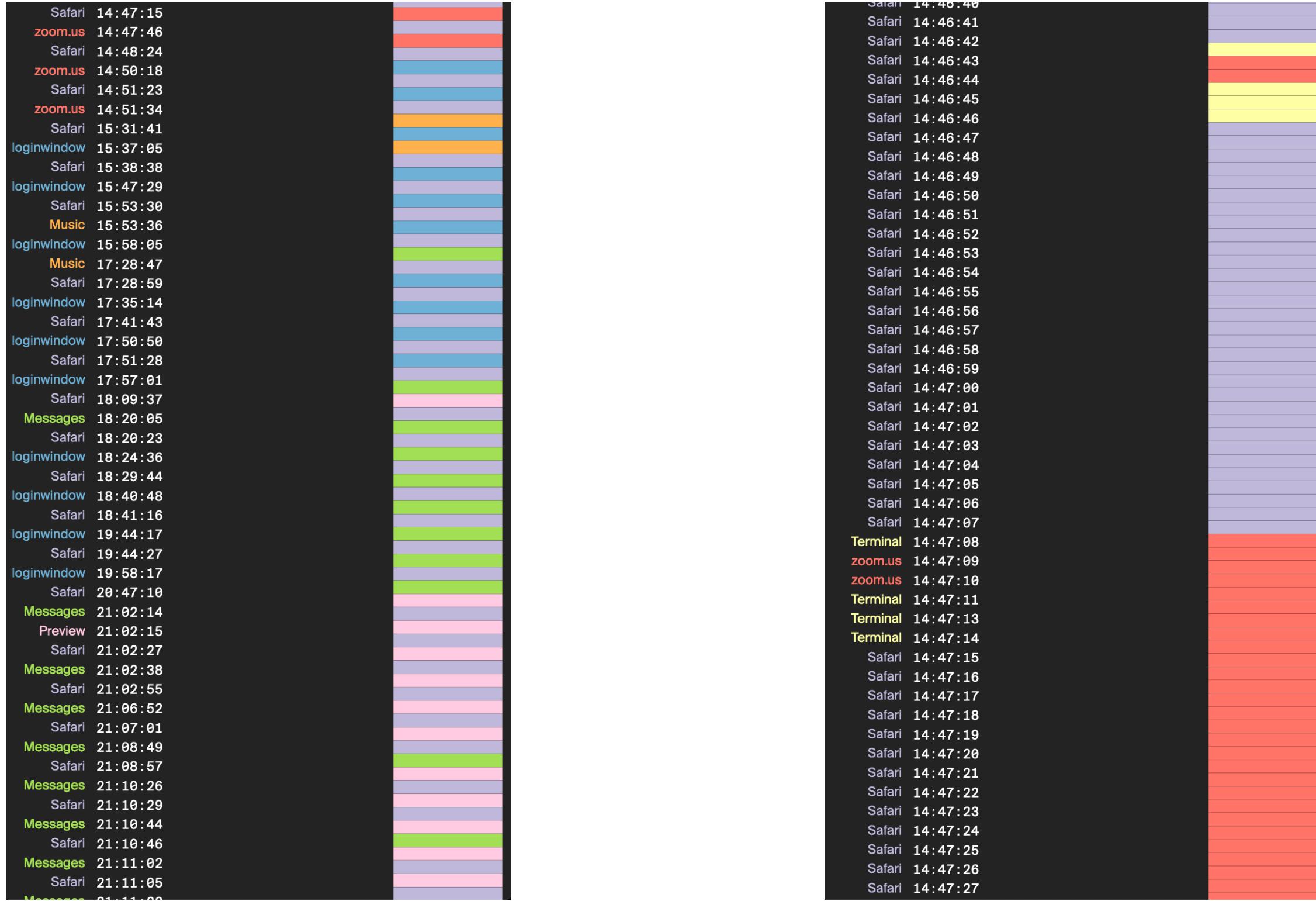
Digital Distancing: Tracker



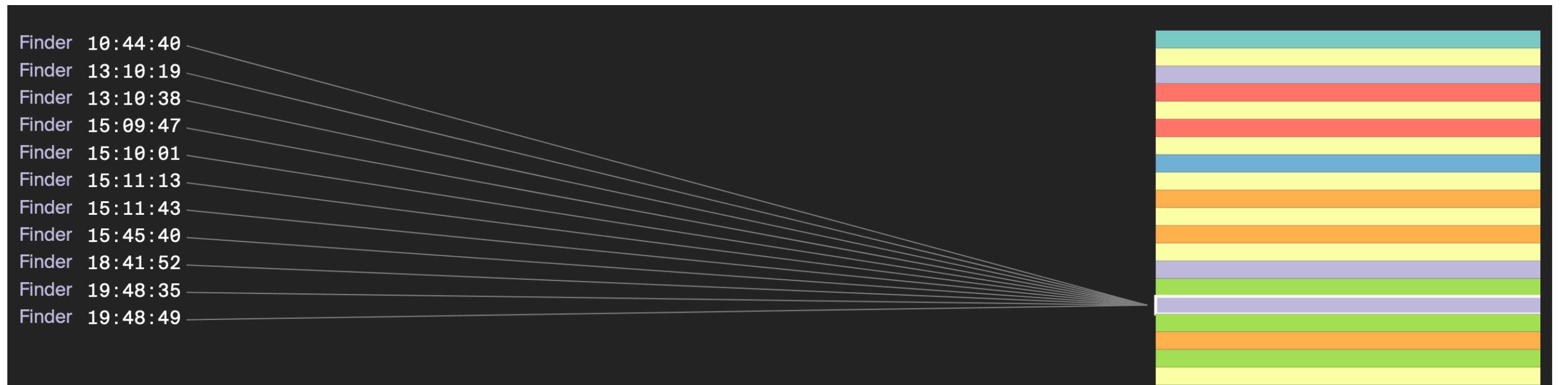
Reader: finds points of inflection when a user switched between two applications.

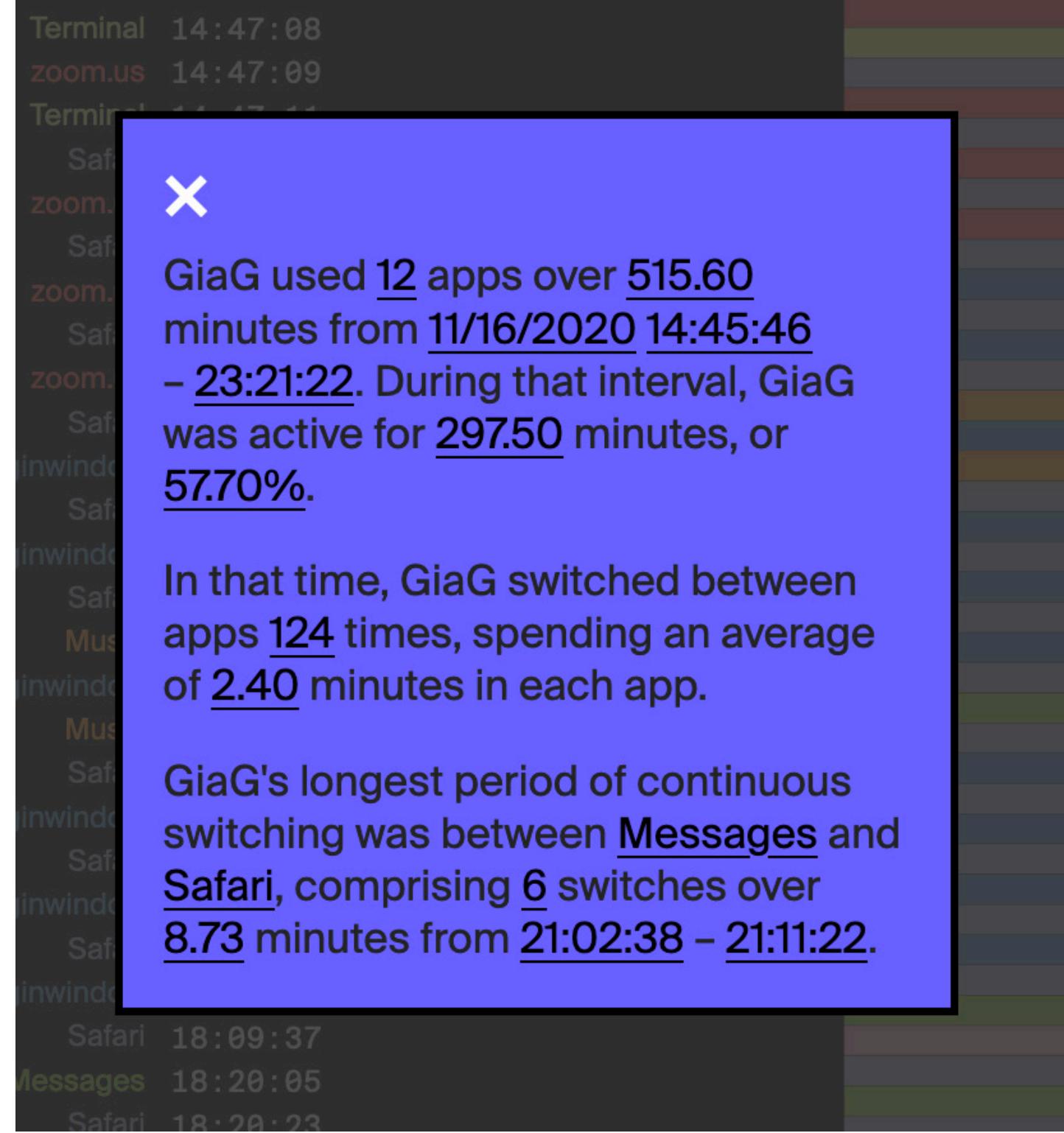
Allows for analyzing, linking, finding patterns

Digital Distancing: Tracker



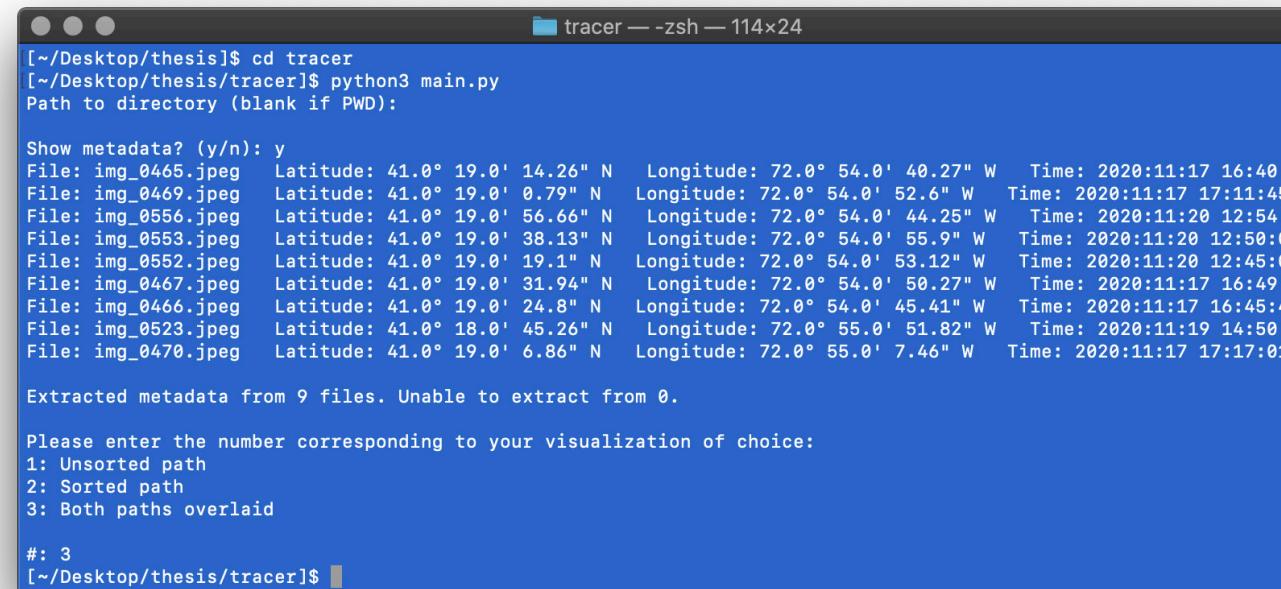
Digital Distancing: Tracker





Digital Distancing: Tracer

Given a folder of (smartphone) images, Tracer extracts Exif metadata [such as timestamps and coordinates] and draws paths that can be sorted by time.



```
[~/Desktop/thesis]$ cd tracer
[~/Desktop/thesis/tracer]$ python3 main.py
Path to directory (blank if PWD):

Show metadata? (y/n): y
File: img_0465.jpeg  Latitude: 41.0° 19.0' 14.26" N  Longitude: 72.0° 54.0' 40.27" W  Time: 2020:11:17 16:40:08
File: img_0469.jpeg  Latitude: 41.0° 19.0' 0.79" N  Longitude: 72.0° 54.0' 52.6" W  Time: 2020:11:17 17:11:45
File: img_0556.jpeg  Latitude: 41.0° 19.0' 56.66" N  Longitude: 72.0° 54.0' 44.25" W  Time: 2020:11:20 12:54:53
File: img_0553.jpeg  Latitude: 41.0° 19.0' 38.13" N  Longitude: 72.0° 54.0' 55.9" W  Time: 2020:11:20 12:50:06
File: img_0552.jpeg  Latitude: 41.0° 19.0' 19.1" N  Longitude: 72.0° 54.0' 53.12" W  Time: 2020:11:20 12:45:08
File: img_0467.jpeg  Latitude: 41.0° 19.0' 31.94" N  Longitude: 72.0° 54.0' 50.27" W  Time: 2020:11:17 16:49:49
File: img_0466.jpeg  Latitude: 41.0° 19.0' 24.8" N  Longitude: 72.0° 54.0' 45.41" W  Time: 2020:11:17 16:45:41
File: img_0523.jpeg  Latitude: 41.0° 18.0' 45.26" N  Longitude: 72.0° 55.0' 51.82" W  Time: 2020:11:19 14:50:07
File: img_0470.jpeg  Latitude: 41.0° 19.0' 6.86" N  Longitude: 72.0° 55.0' 7.46" W  Time: 2020:11:17 17:17:01

Extracted metadata from 9 files. Unable to extract from 0.

Please enter the number corresponding to your visualization of choice:
1: Unsorted path
2: Sorted path
3: Both paths overlaid

#: 3
[~/Desktop/thesis/tracer]$
```

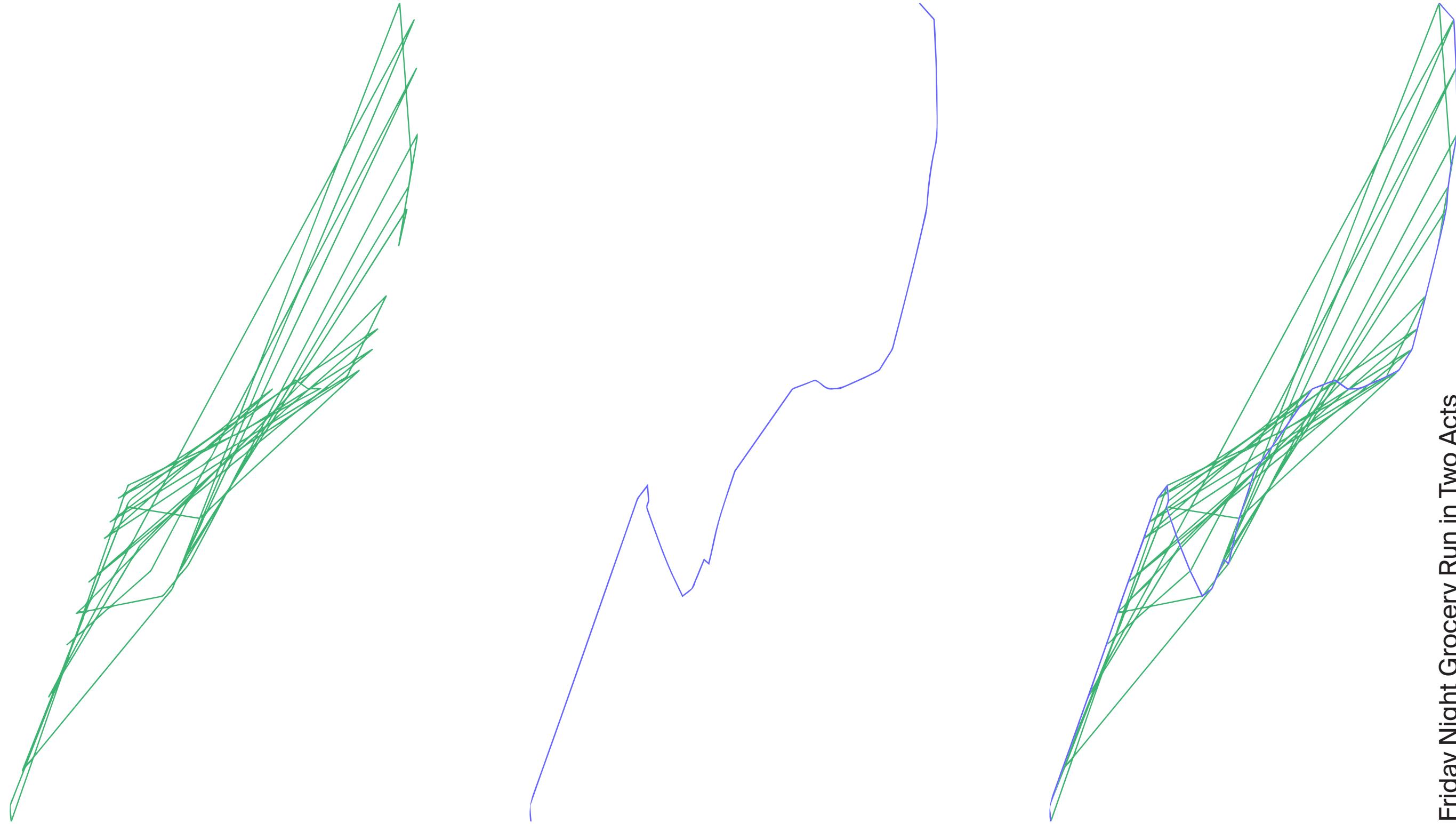
Tracer

Unsorted

Sorted

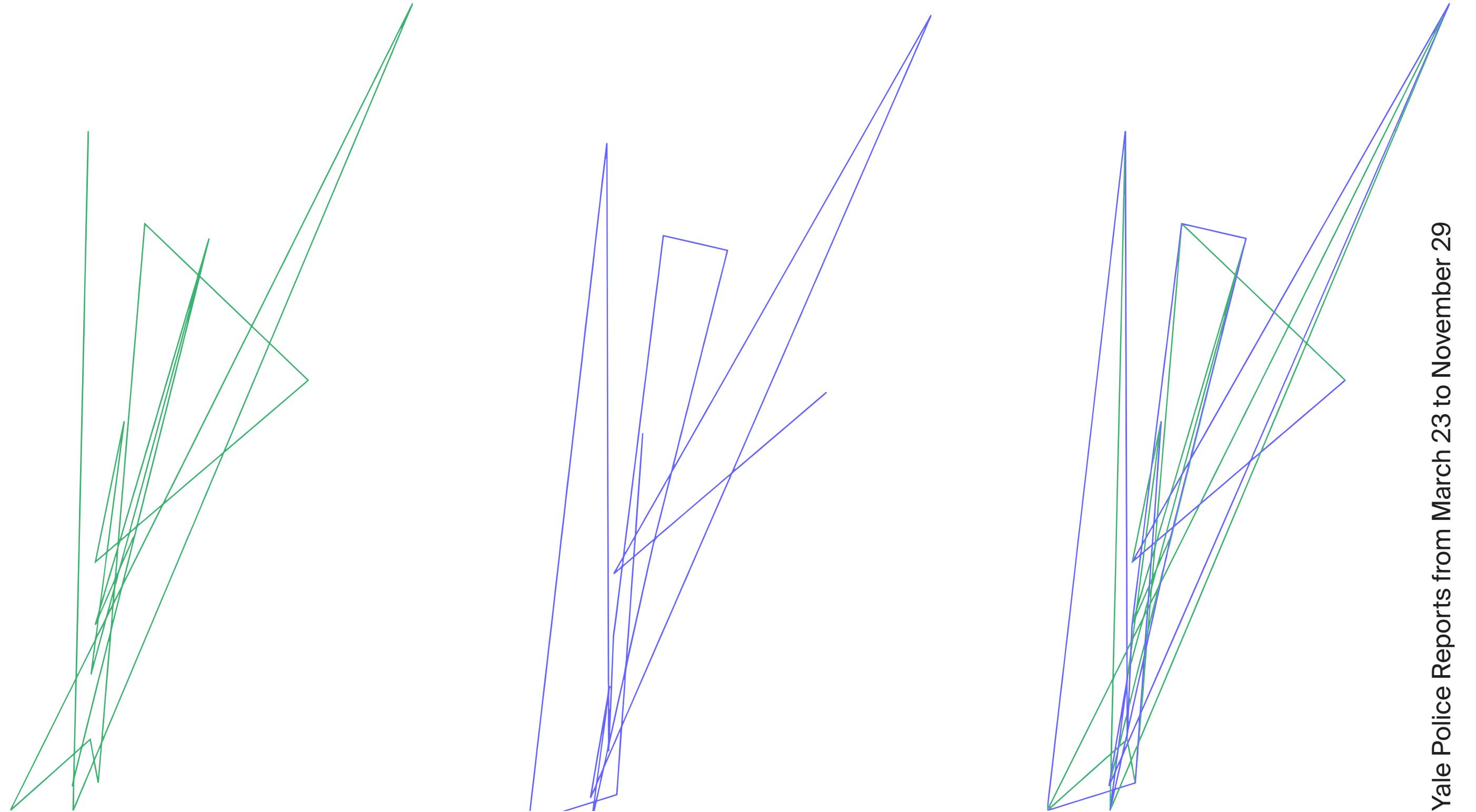
Overlaid

Digital Distancing: Tracer



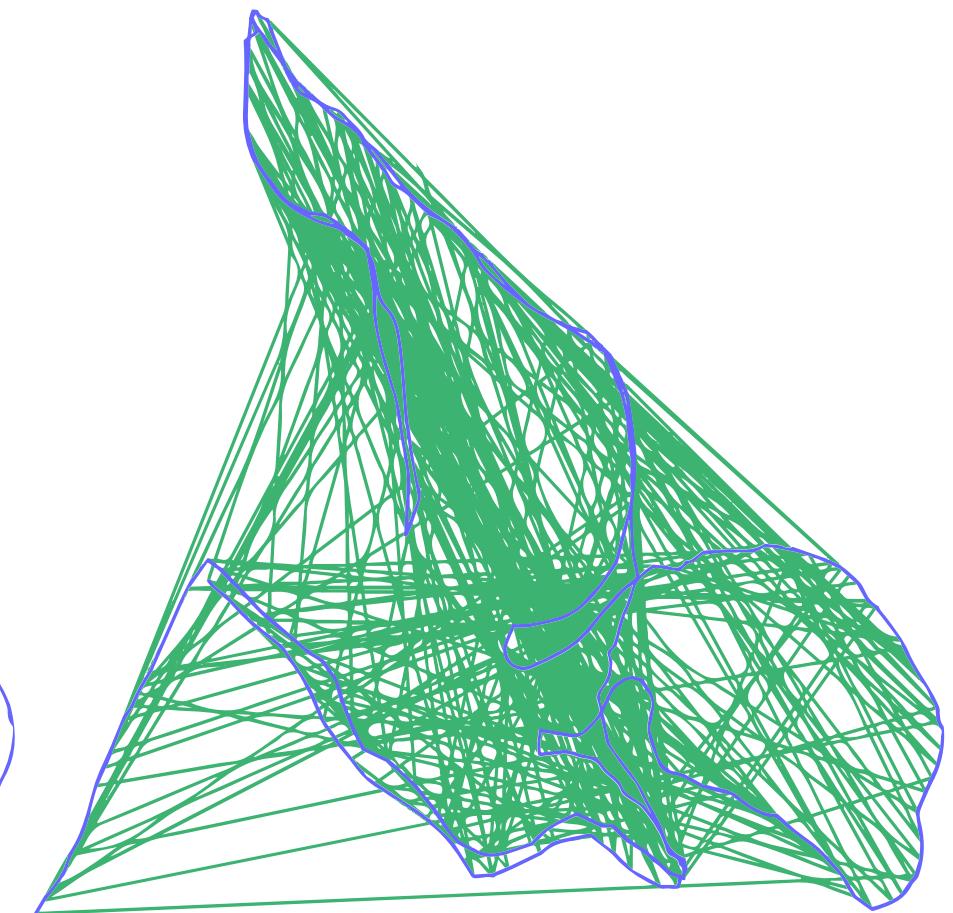
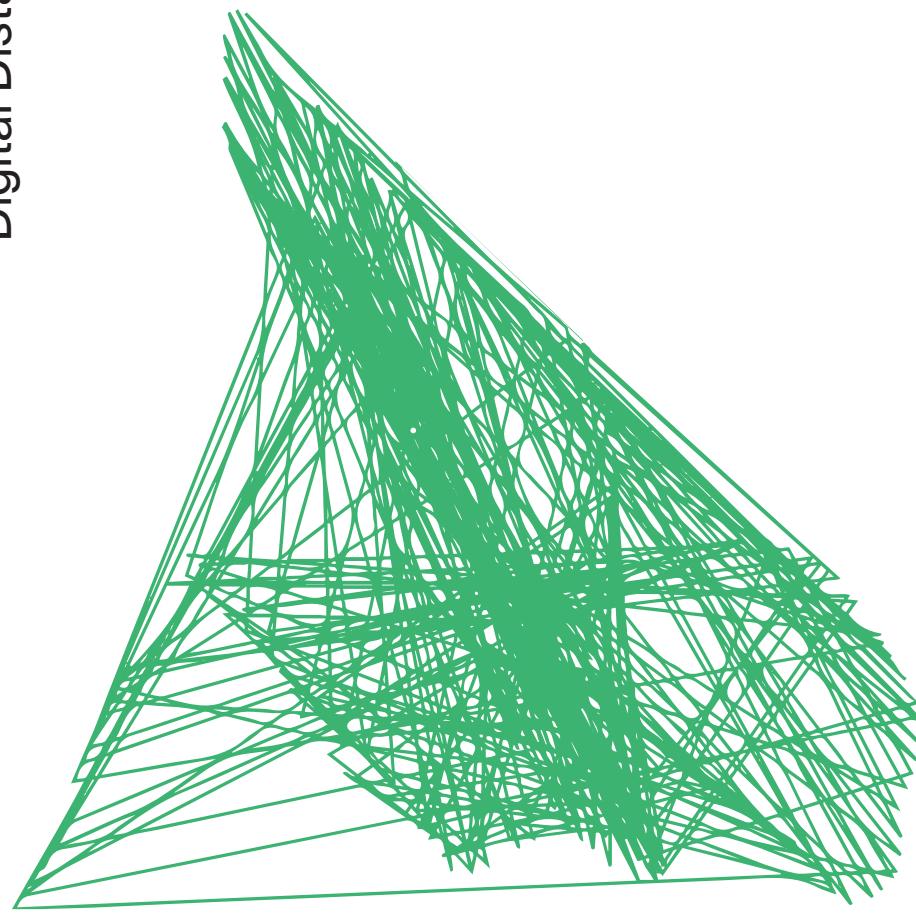
Friday Night Grocery Run in Two Acts

Digital Distancing: Tracer



Yale Police Reports from March 23 to November 29

Digital Distancing: Tracer



A Socially Distanted Hike Up and Down East Rock

Digital Distancing: Videos

False Positive, 2020-21

Two-channel video (color, sound)

10:00 min. Dimensions variable.

Digital Distancing: Videos



False Positive juxtaposes three perspectives on a narrative to explore how they overlap and diverge from the themes of surveillance, vision, documentation, and the physical or digital legacies of oneself.

Digital Distancing: Videos



Second video coming soon.

Digital Distancing

<https://jackadam.cc/thesis>