

# APP DEVELOPMENT TOOLS

HTTF : 2013 : 06 : 01

# APP DEVELOPMENT ~~TOOLS~~ OPPORTUNITIES

HTTF : 2013 : 06 : 01

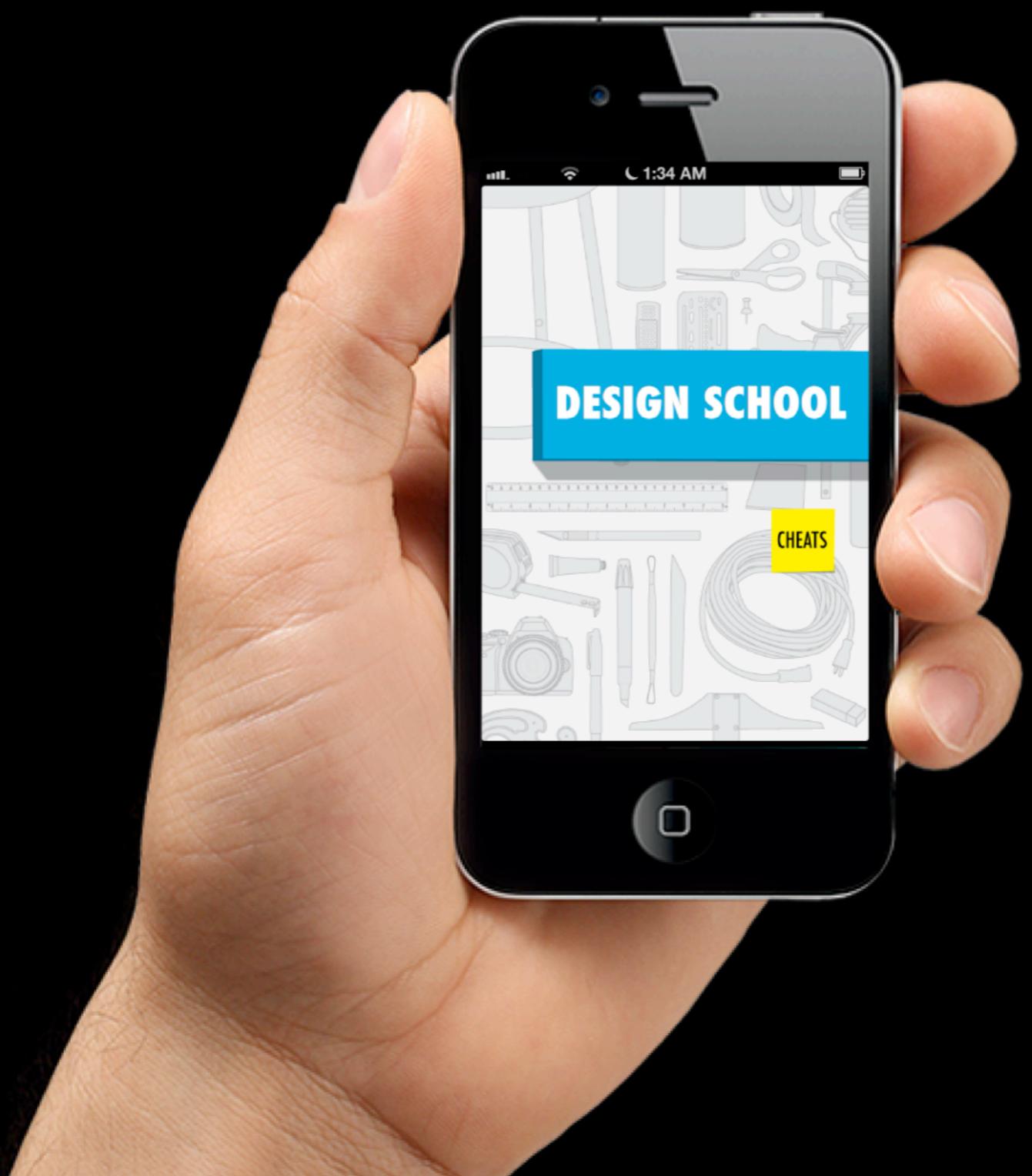


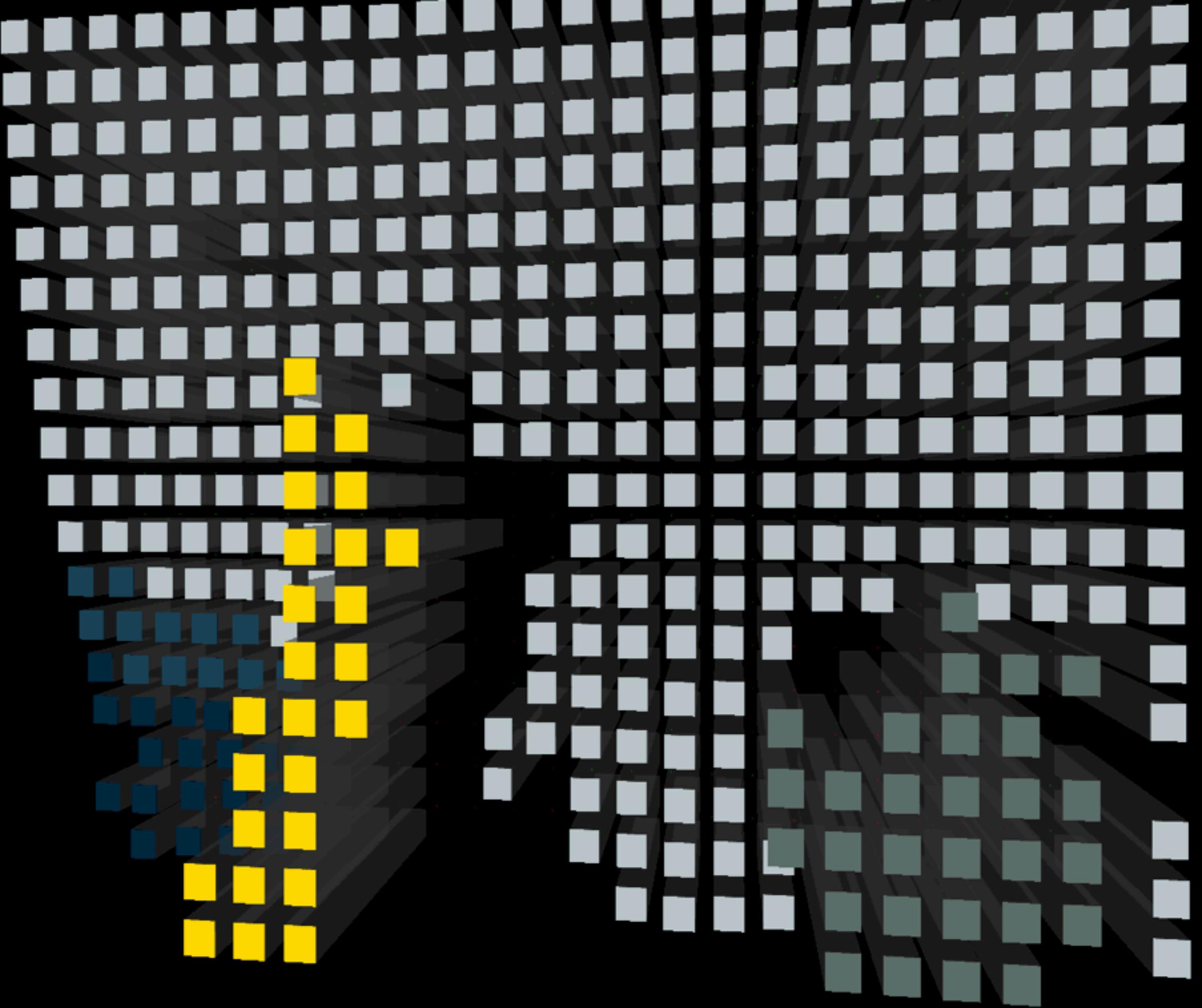
Hello.

Kyle Oba

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[facebook.com/WhatNoChoco](https://facebook.com/WhatNoChoco)





7

simple ideas...

1

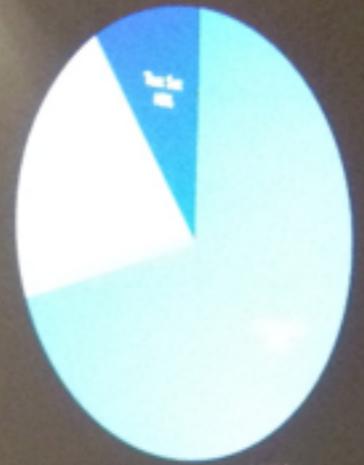
I wonder if I can find  
some interesting  
programming talks...

# OUDL\*

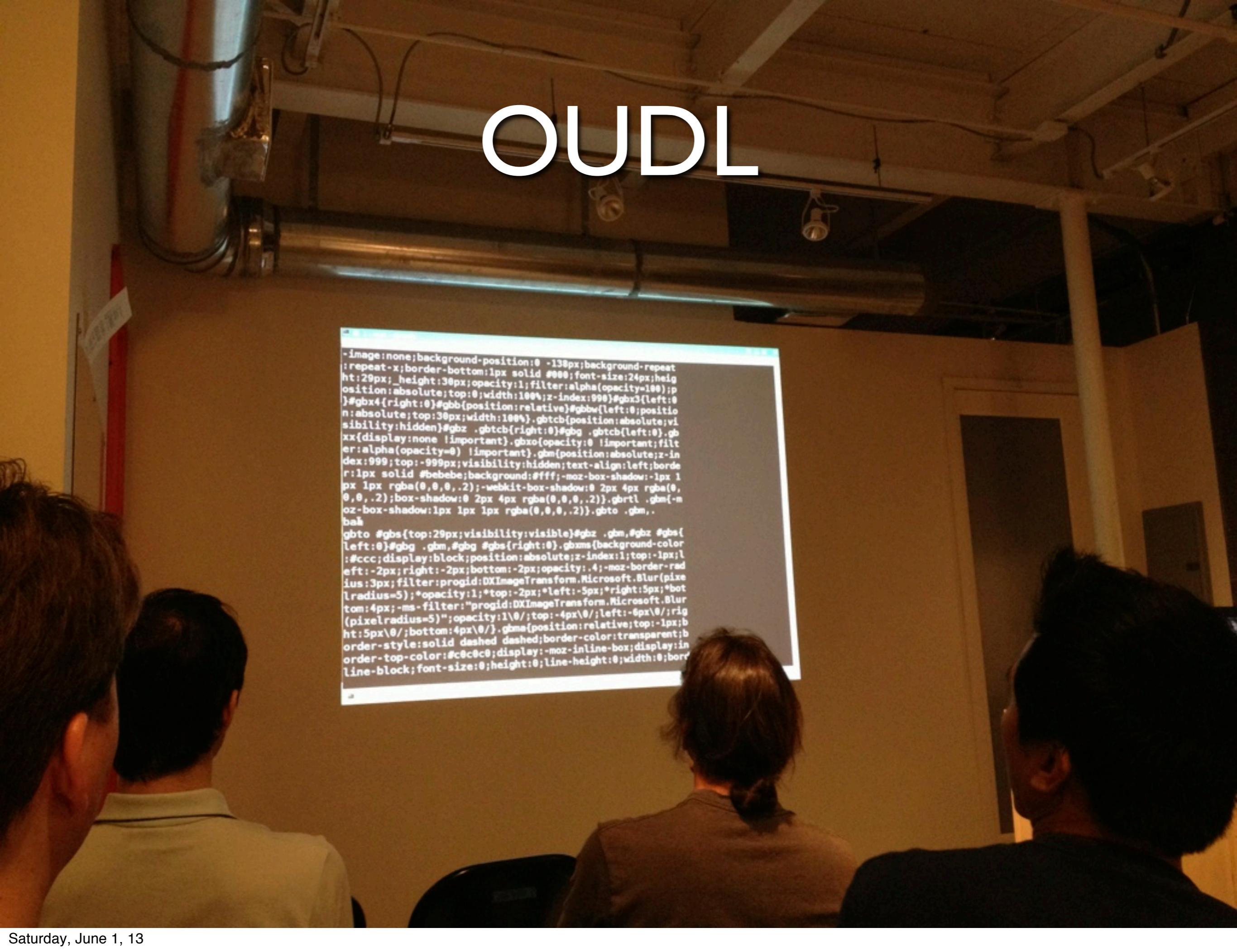
<http://meetup.com/dynamic/>

\*Organization for the Understanding of Dynamic Languages

# OUDL



# OUDL



A group of people are gathered in a room, looking at a presentation slide on a screen. The slide contains a large amount of CSS code. The code is as follows:

```
-image:none;background-position:0 -138px;background-repeat:repeat-x;border-bottom:1px solid #000;font-size:24px;height:29px;_height:36px;opacity:1;filter:alpha(opacity=100);position:absolute;top:0;width:100%;z-index:999>#gbx3{left:0}#gbx4{right:0}#gb5{position:relative}#gb5w{left:0;position:absolute;top:30px;width:100%}.gbtc5{position: absolute; visibility:hidden}#gbz .gbtc5{right:0}#gbg .gbtc5{left:0}.gbxx{display:none !important}.gbx0{opacity:0 !important;filter:alpha(opacity=0) !important}.gbm{position: absolute;z-index:999;top:-999px;visibility:hidden;text-align:left;border:1px solid #bebebe;background:#fff;-moz-box-shadow:-1px 1px 1px rgba(0,0,0,.2);-webkit-box-shadow:0 2px 4px rgba(0,0,0,.2).gbrtl .gbm{-moz-box-shadow:1px 1px 1px rgba(0,0,0,.2)).gbto .gbm,.bah  
gbto #gbs{top:29px;visibility:visible}#gbz .gbm,#gbz .gbs{left:0}#gbg .gbm,#gbg #gbs{right:0}.gbxsms{background-color:#ccc;display:block;position: absolute;z-index:1;top:-1px;left:-2px;right:-2px;bottom:-2px;opacity:.4;-moz-border-radius:3px;filter:progid:DXImageTransform.Microsoft.Blur(pixelradius=5);*opacity:1,*top:-2px,*left:-5px,*right:5px,*bottom:4px;-ms-filter:"progid:DXImageTransform.Microsoft.Blur(pixelradius=5)";opacity:1\0;/top:-4px\0;/left:-6px\0;/right:5px\0;/bottom:4px\0}.gbma{position: relative;top:-1px;border-style:solid dashed dashed;border-color: transparent;order-top-color:#c0c0c0;display:-moz-inline-block;display:inline-block;font-size:0;height:0;line-height:0;width:0;border-line-block}
```

I'd really like coding to  
be more inspiring.

# OutOfOffice



# OutOfOffice





# OutOfOffice



# MORE LOCATIONS?

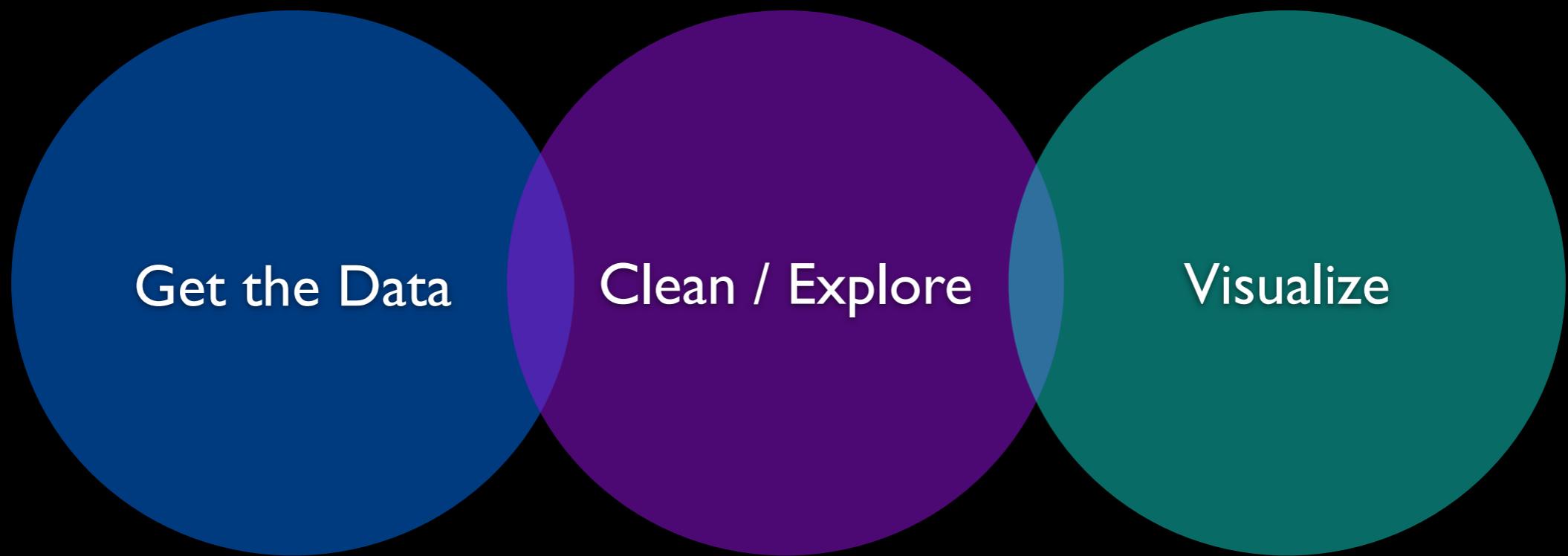
3

I want to look through  
Hawai‘i’s Open Data  
without a bunch of  
technical fuss.

# Hawai‘i Data Pipeline

<http://github.com/PasDeChocolat/HawaiiDataPipeline>

# See Pipeline.



# Get the Data

Find the Source

Filter / Search

Extract the Data

```
> c.list # => list catalog
> c.list "election" # => search catalog

# Catalog Metadata
> list = c.catalog_search "election"
> i = list[2] # => get third catalog item
> i = list.first # => get first catalog item
> i[:metadata] # => display metadata

# Show columns
> CI.columns i # => columns as metadata
> CI.column_names i # => column names
> CI.column_display_names i # => friendly!
```

# Get the Data

Find the Source

Filter / Search

Extract the Data

```
# Interrogate dataset:  
> c.list "dqp6-3idi"  
> CI.column_names c.catalog_search("dqp6-3idi").first  
  
# Oldest prices:  
> c.data_for "dqp6-3idi", max_recs: 10, order_by: "month_of_price"  
  
# Latest prices:  
> c.data_for "dqp6-3idi", max_recs: 10, order_by: "month_of_price desc"  
  
# Average fuel price:  
> c.data_for "dqp6-3idi", soda_query: "&$select=fuel,avg(price)&$group=fuel"  
  
# Max fuel price:  
> c.data_for "dqp6-3idi", soda_query: "&$select=fuel,max(price)&$group=fuel"
```

# Get the Data

Find the Source

Filter / Search

Extract the Data

```
# Get a dataset (this is the birthrate dataset):
> d = c.data_at 48

# Generate a JSON file from the birthrate data:
> c.export_json d, "temp.json"

# Generate a CSV (comma-delimited) for the birthrate data:
> c.export_csv d, "birthrate.csv"

# Specify a custom delimiter (e.g. the pipe here) for the birthrate data:
> c.export_csv d, "piped_birthrate.csv", "|"
```

# Clean / Explore

Load the Data

Apply Functions  
Sort / Filter /  
Map / Reduce

Organize

```
> raw_birth_data = c.data_for "padw-q7ep"
...
=> [ {"year":>"1900"...
>
> raw_birth_data.first.keys
=> [ "year", "rate_per_1000_resident_population" ]
>
> birth = raw_birth_data.map { |d| {
  year: d["year"].to_i,
  rate: d["rate_per_1000_resident_population"].to_f } }
=> [ { :year=>1900, :rate=>6.7 } ...
```

# Clean / Explore

Load the Data

Apply Functions  
Sort / Filter /  
Map / Reduce

Organize

```
> birth.first  
=> { :year => 1900, :rate => 6.7 }  
  
> birth.last  
=> { :year => 2011, :rate => 13.8 }  
  
> birth[41]  
=> { :year => 1941, :rate => 22.0 }
```

# Clean / Explore

Load the Data

Apply Functions  
Sort / Filter /  
Map / Reduce

Organize

```
> birth.select { |d| d[:year] == 1944 }
=> [{:year=>1944, :rate=>14.8}]

> birth.select { |d| d[:year] % 2 == 0 }
=> [{:year=>1900, :rate=>6.7}, {:year=>1902, :rate=>14.9},
{:year=>1904...}

> birth.reject { |d| d[:year] < 2000 }
=> [{:year=>2000, :rate=>14.5}, ...
{:year=>2011, :rate=>13.8}]

> birth.select { |d| d[:rate] > 39 }.map { |d| d[:year] }
=> [1921, 1922, 1923, 1924]
```

# Clean / Explore

Load the Data

Apply Functions  
Sort / Filter /  
Map / Reduce

Organize

```
> birth.sort { |x,y| y[:rate] <=> x[:rate] }  
=> [{:year=>1924, :rate=>41.8}, ...  
{:year=>1900, :rate=>6.7}]  
  
> birth.reduce(1000) { |a,d| [a, d[:rate]].min }  
=> 6.7  
  
> birth.reduce(0) { |a,d| [a, d[:rate]].max }  
=> 41.8
```

# WAT?

- <http://pasdechocolat.com/blog/list/>
- <http://pasdechocolat.com/2013/04/06/introducing-the-hawaii-data-pipeline/>
- <http://pasdechocolat.com/2013/04/07/pipeline-for-honolulu-too/>
- <http://pasdechocolat.com/2013/04/08/using-d3-in-hawaii/>
- <http://pasdechocolat.com/2013/05/03/mapping-hawaii/>

I wonder if I can place  
bets on bus schedules.

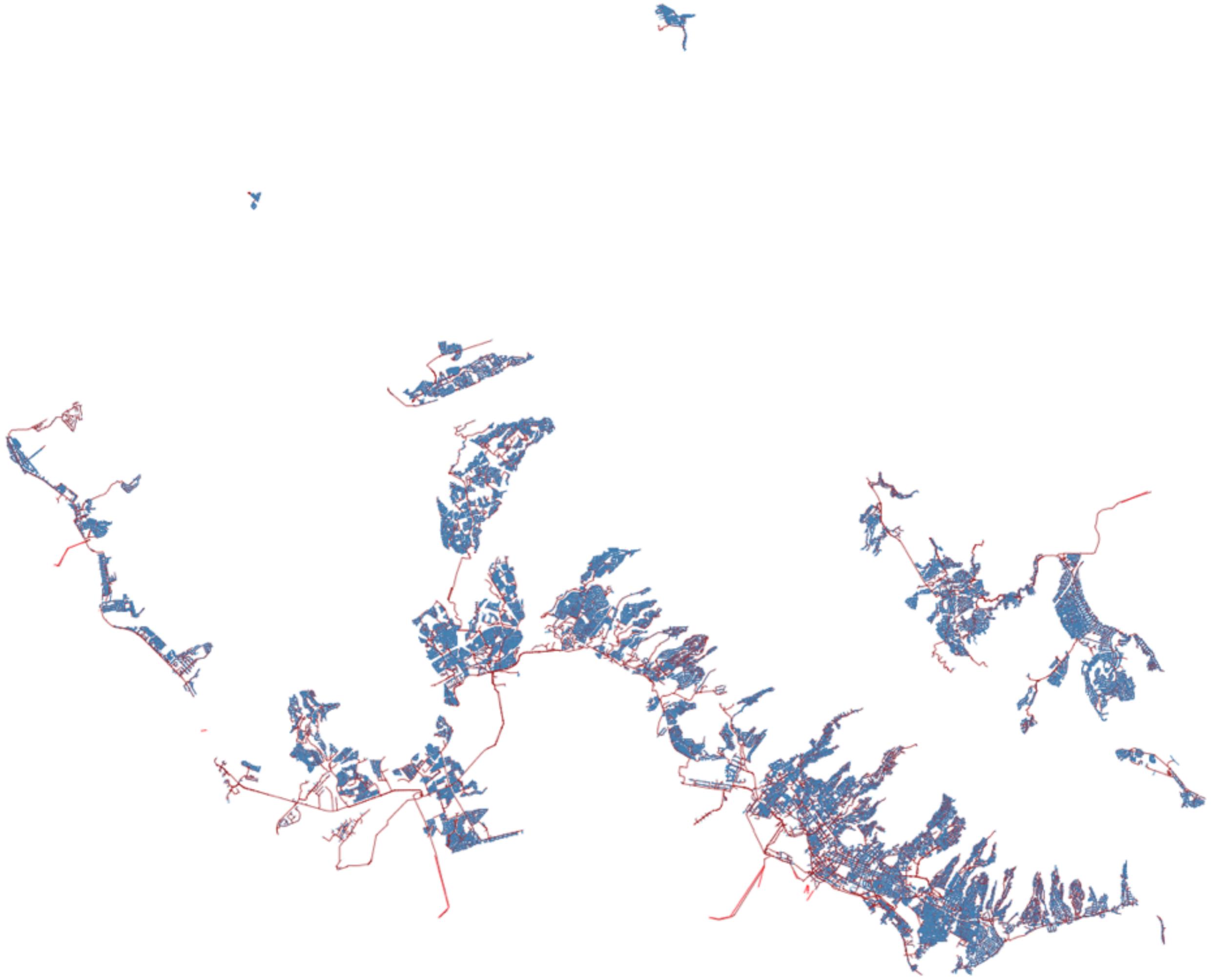
# Joe's Bus

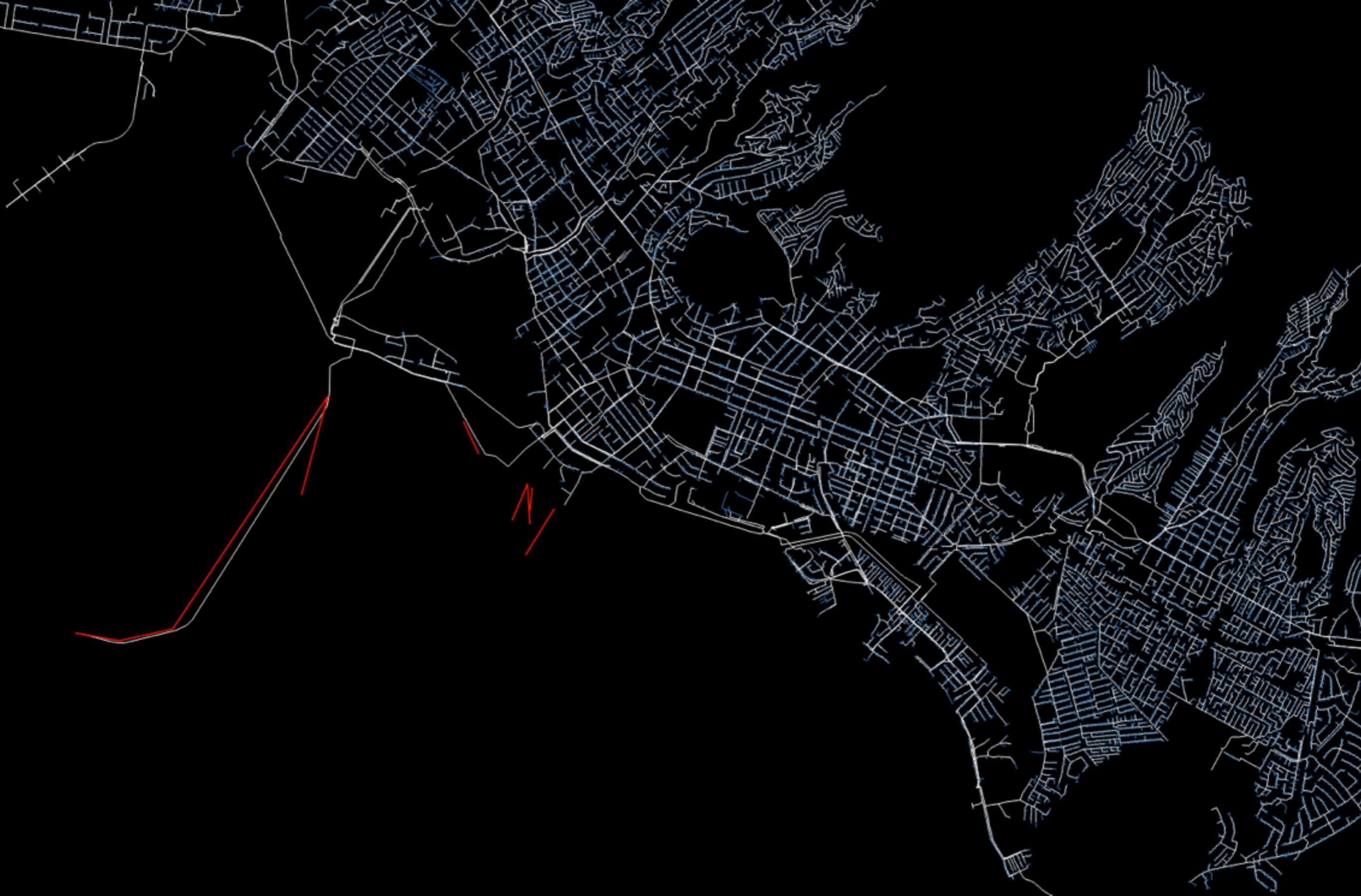
- ❖ Thanks to Jon Nouchi @ TheBus.
- ❖ Talk to Joe or me after this.
- ❖ To be continued...

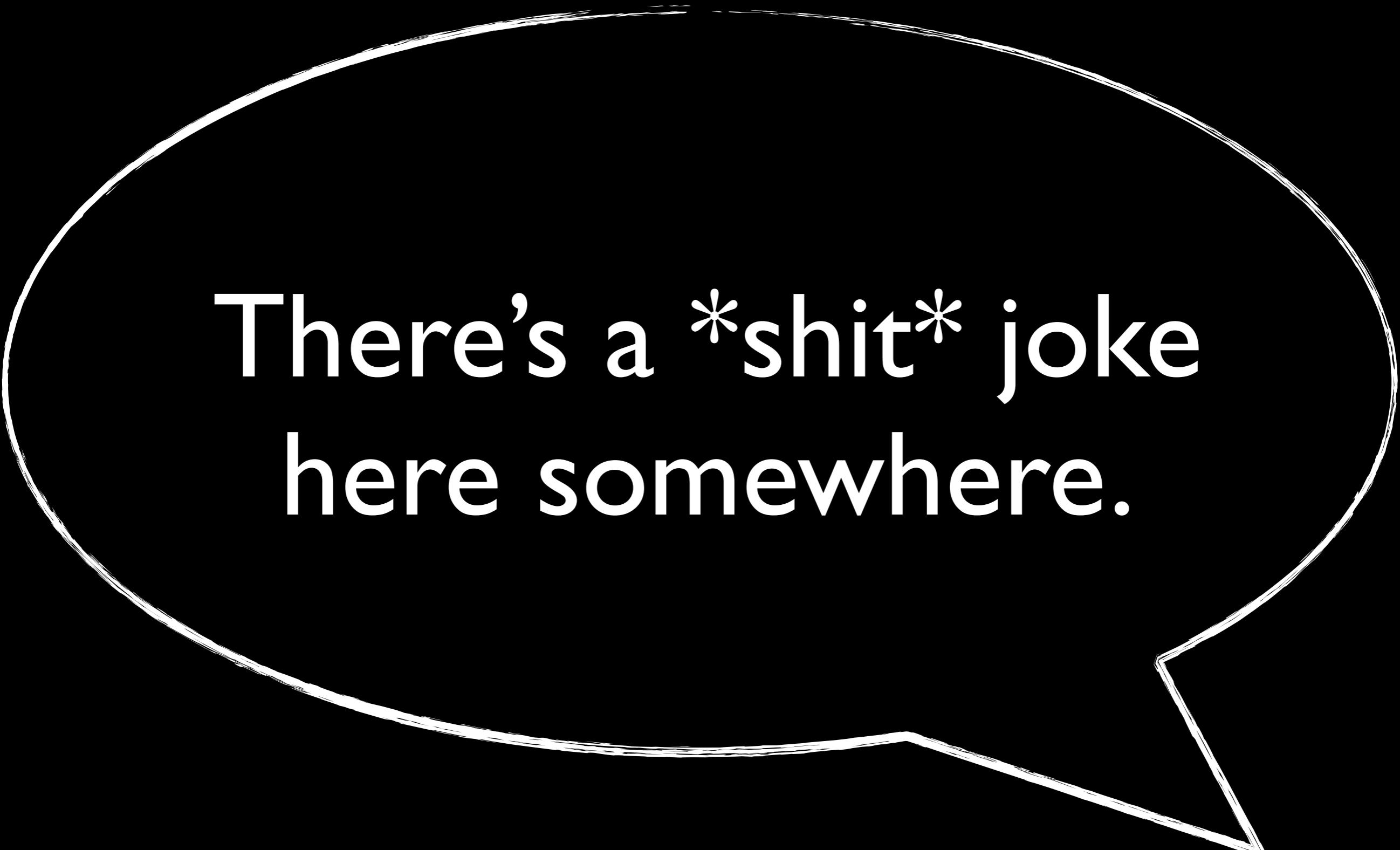


I wonder where all the  
sewers are...

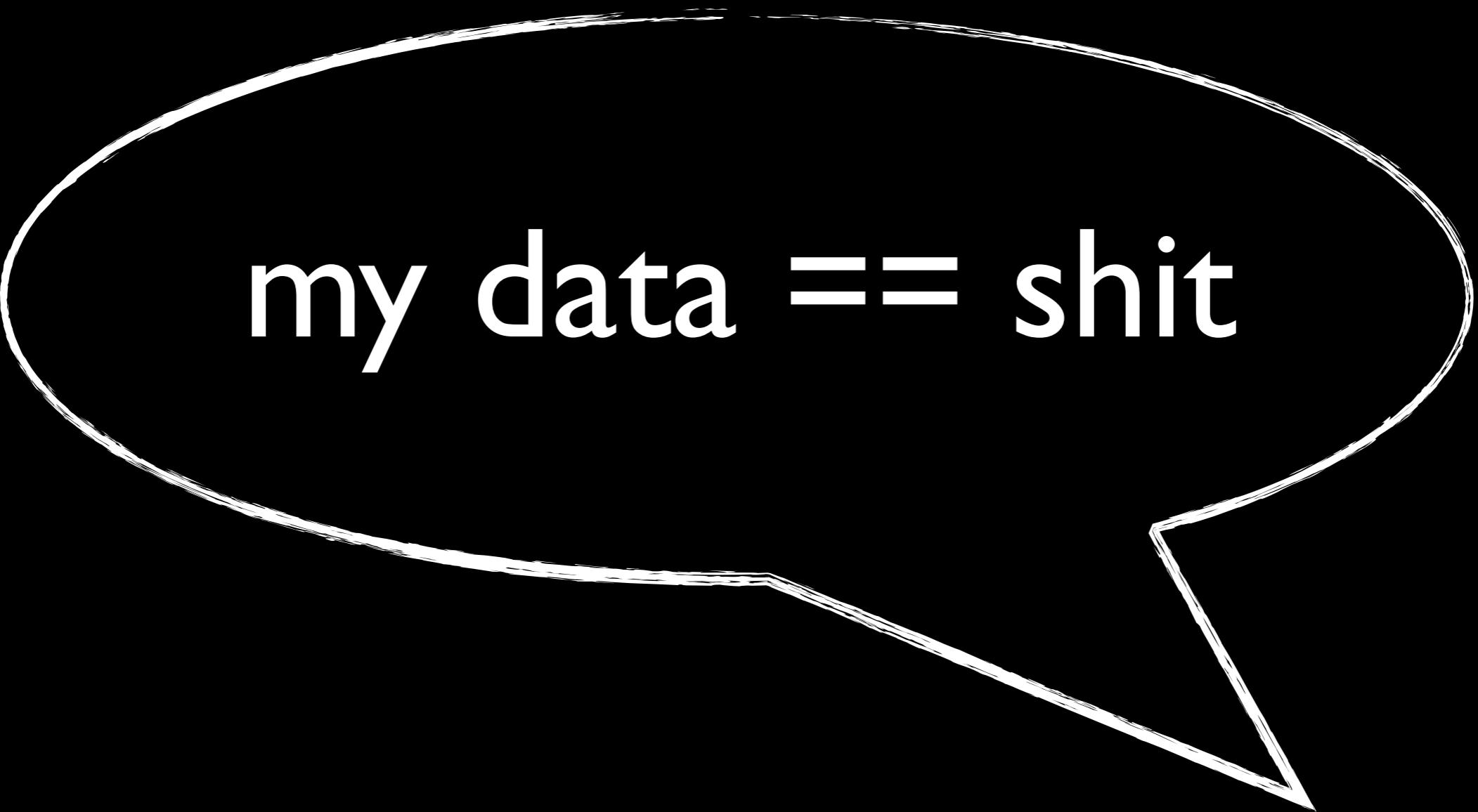








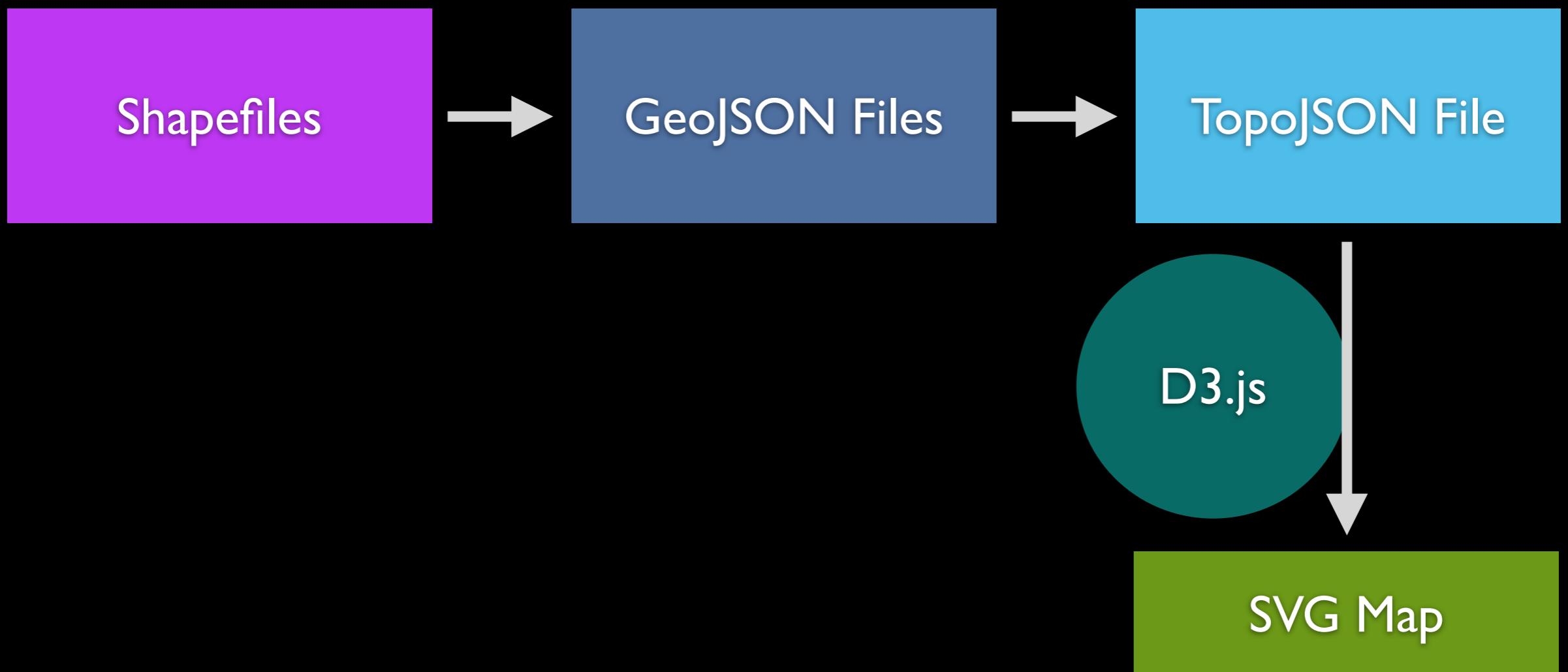
There's a \*shit\* joke  
here somewhere.

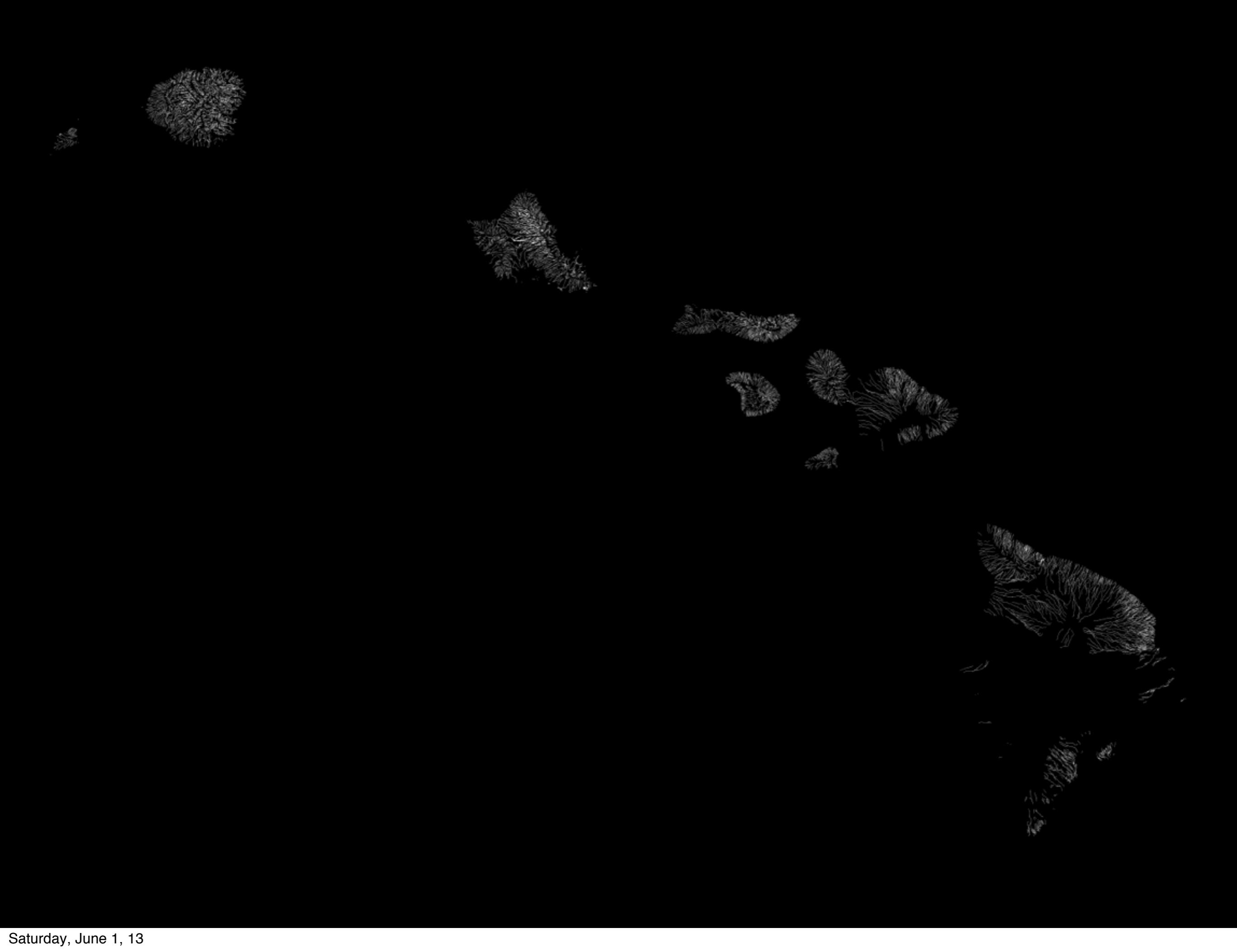


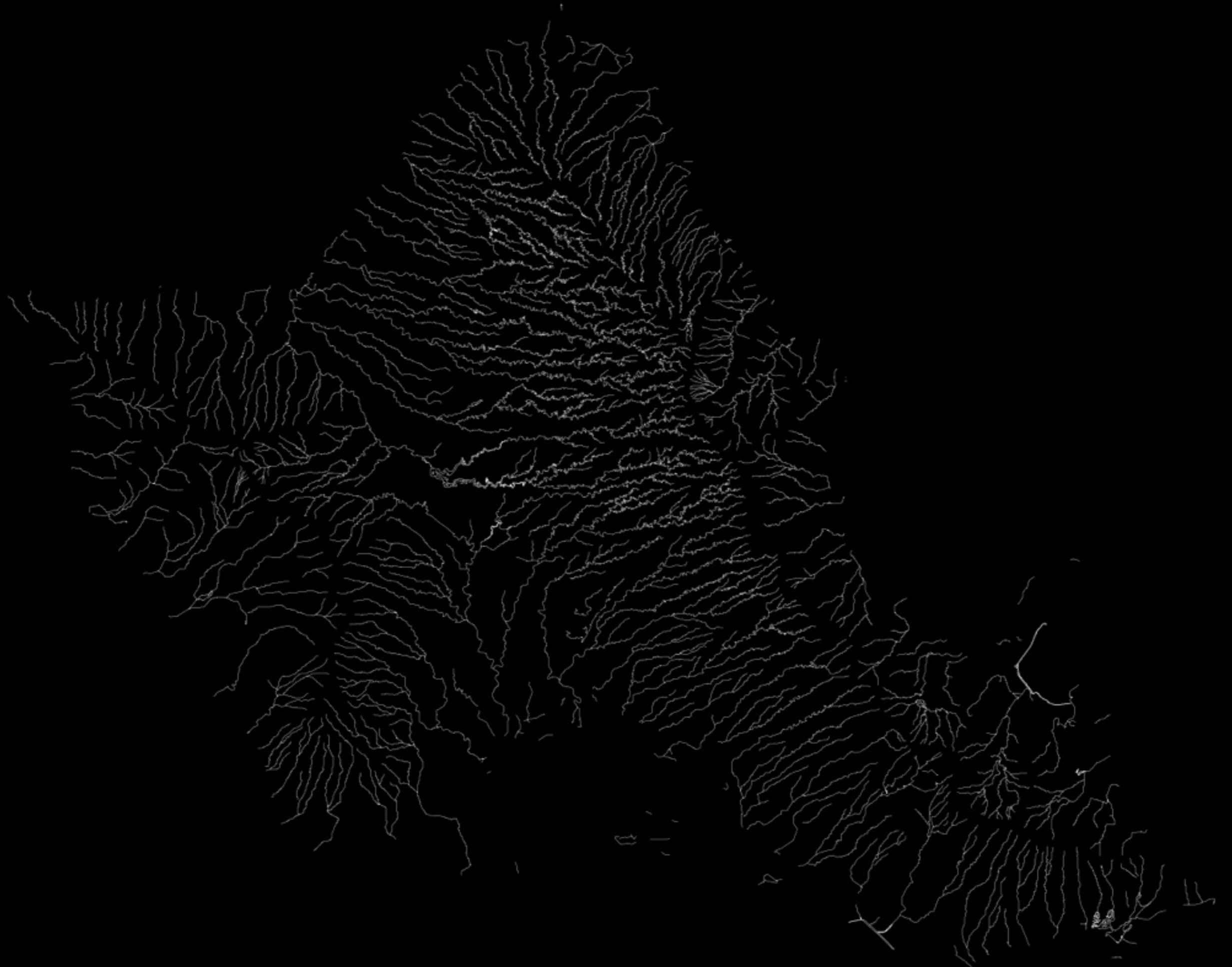
my data == shit

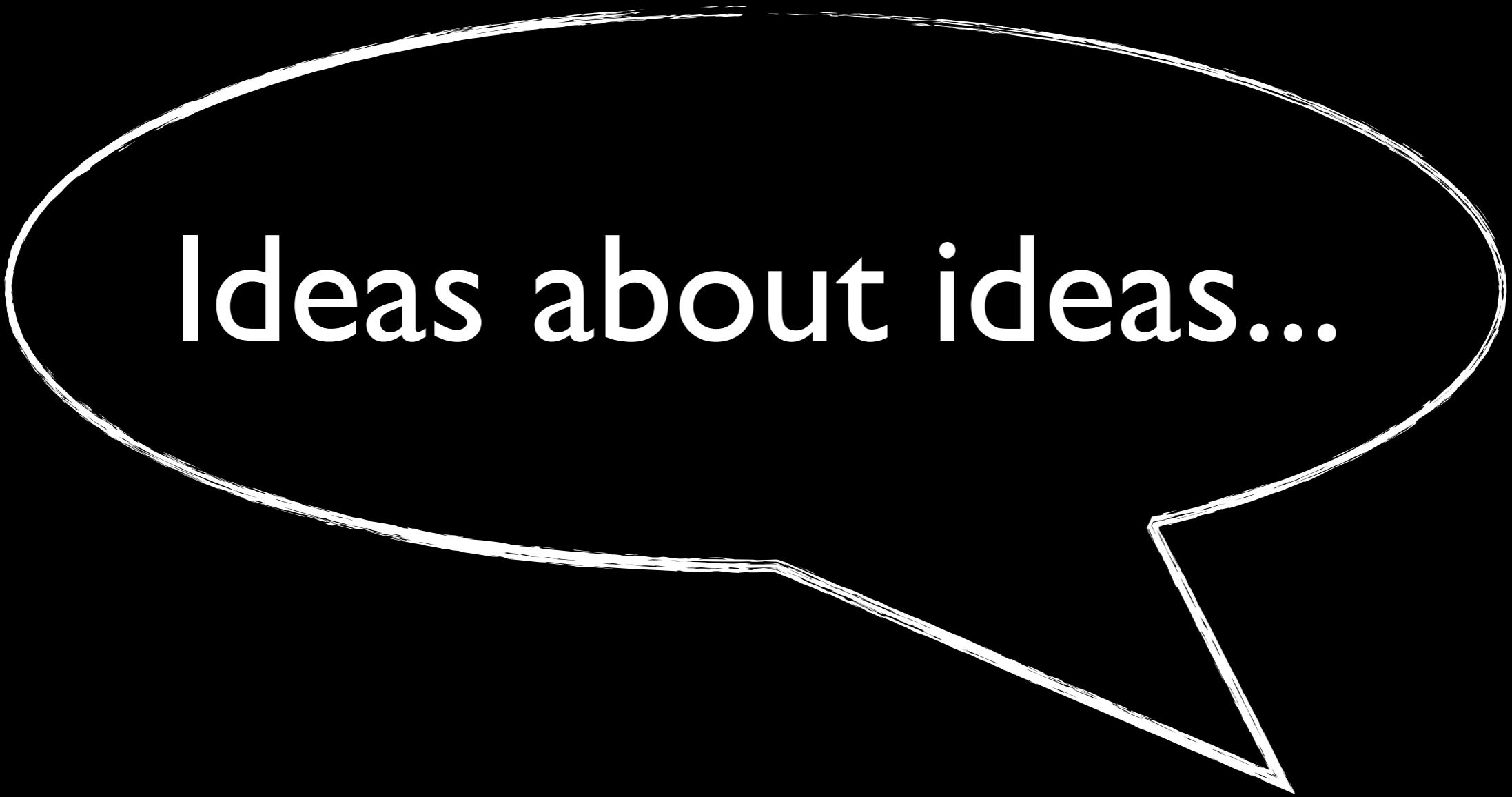
Hey, maps are cool.

# Mapping with D3









Ideas about ideas...

# Interesting...

- ❖ [openyou.org](http://openyou.org) - libfitbit, libfuelband
- ❖ [openpaths.cc](http://openpaths.cc) - personal location information
- ❖ [opencorporates.com](http://opencorporates.com)
- ❖ [openstreetmap.org](http://openstreetmap.org) - free worldwide map
- ❖ [callandrespon.se/car/](http://callandrespon.se/car/) - Call & Response
- ❖ [pi.minecraft.net](http://pi.minecraft.net) - modding for teaching
- ❖ Intro to Prog - Pacific New Media, June 15



Thank you.

Kyle Oba

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