

PROTOTYPE

TEST

JUMP IN

TAKE RISKS

TRY NEW BEHAVIORS

!

Simulator
of something
no giving up

Reality Show

IN THE WORLD!

Scarse Resource
Time, Money
Relation

CANTON
TRADE-OFF
Bash/imb

Geolocation
or
Centrification

now
celebrate
contradictions?

A young
woman
STUDYING
A BAR @ HOME

there is
exhilaration
in having
cake +
eating it too

help people
magically
and
celebrate
contradictions

red lifestyle
with success

OPTIMISM
COACH

NO TRADE-
OFF COLONY

AWAKEN
FOR
CONTRADICTION

pinterest

first work
when
Contradiction

Gift

clazziest
contradict

Contradiction
cup

Contradiction
uber

What if
spending embraced
all its
contradictions?

Stupid store
card

Random
Contradiction

HMW
SPURGE +
SPEND

Extra Spence +
credit
card
buys to saving

running
out of
\$\$ value
points

spend
the mo
award

"brewsters
Million's
How far can
you spend \$m

spend-a-
roma game

no
trade-offs

UNTRA
ION

Behind
the
Trade-off
series

Strippers
+ priests

stripper
mn

No
button!!

INTENTIONAL
COMMUNITY
life

I RS
Funders
NO-TAX

Q
No
faster!

extremes
life
co.

MARK
UP

Porter does
Opposite

Convert
every purchase
to a splurge

Splurge
points

Celebrates
people who
spend irresponsibly

spend-a-
roma game

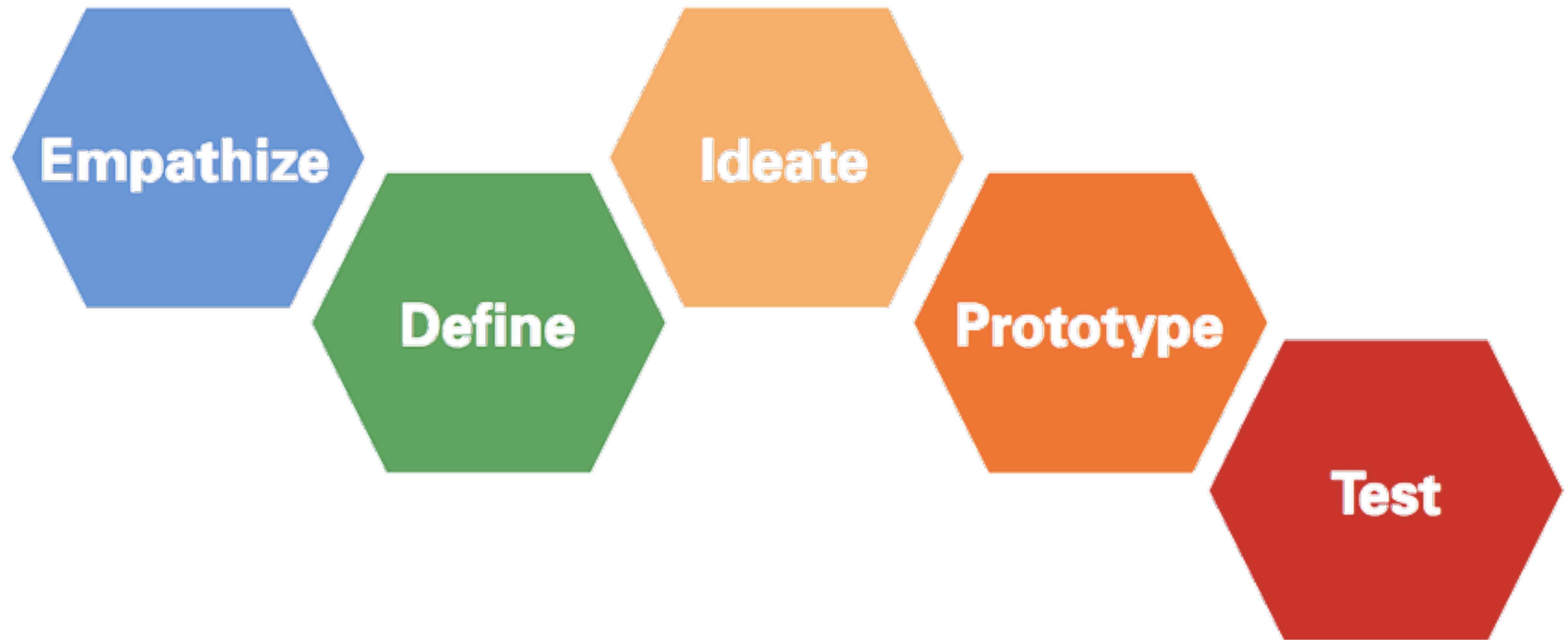
stanford d.school/flickr

School house
rock that
stresses how
trading off
is breakdown

Contradic
V/in

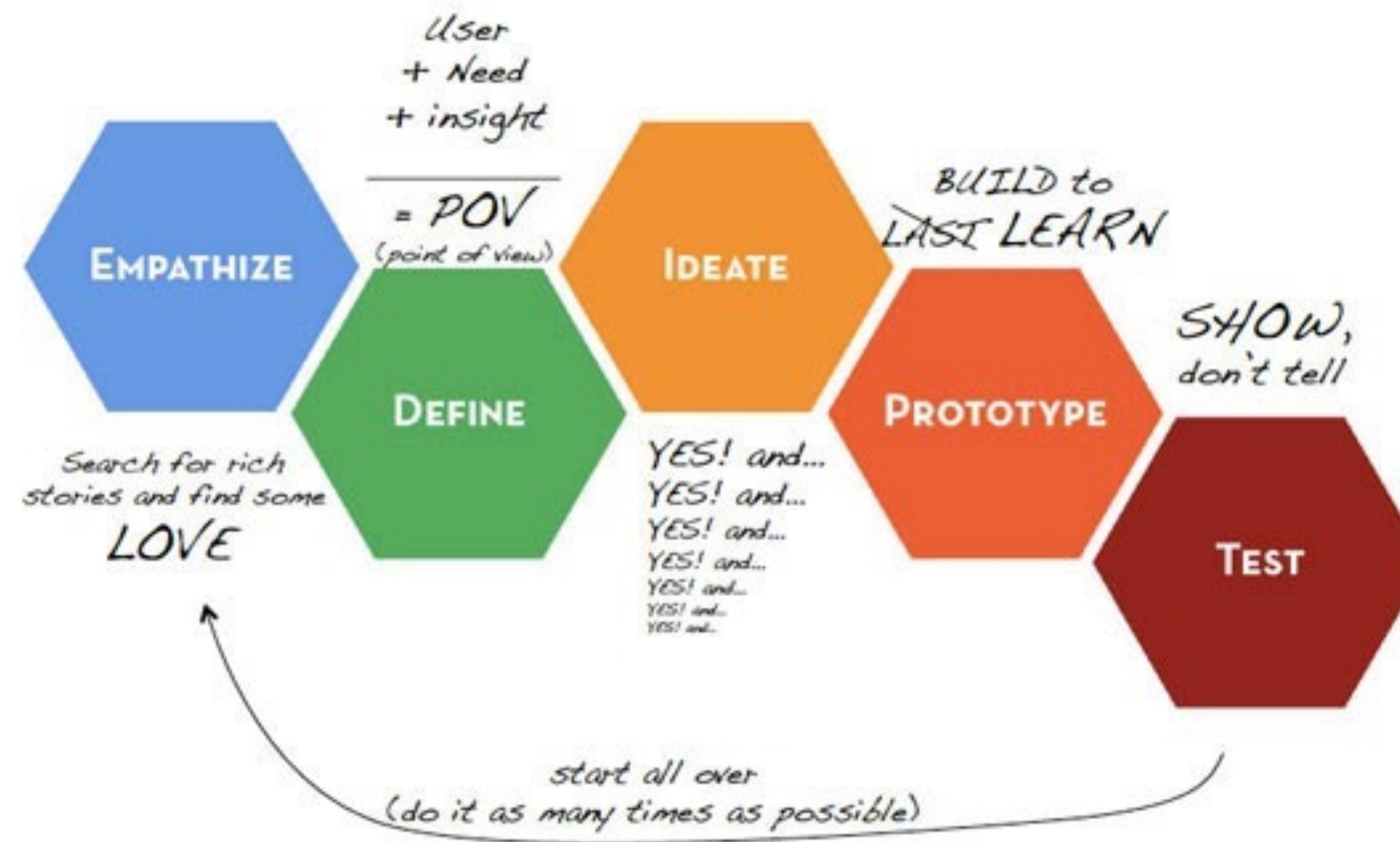


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My design thinking CHEAT SHEET



By Guido Kovalsky

Live Subway Agony Index

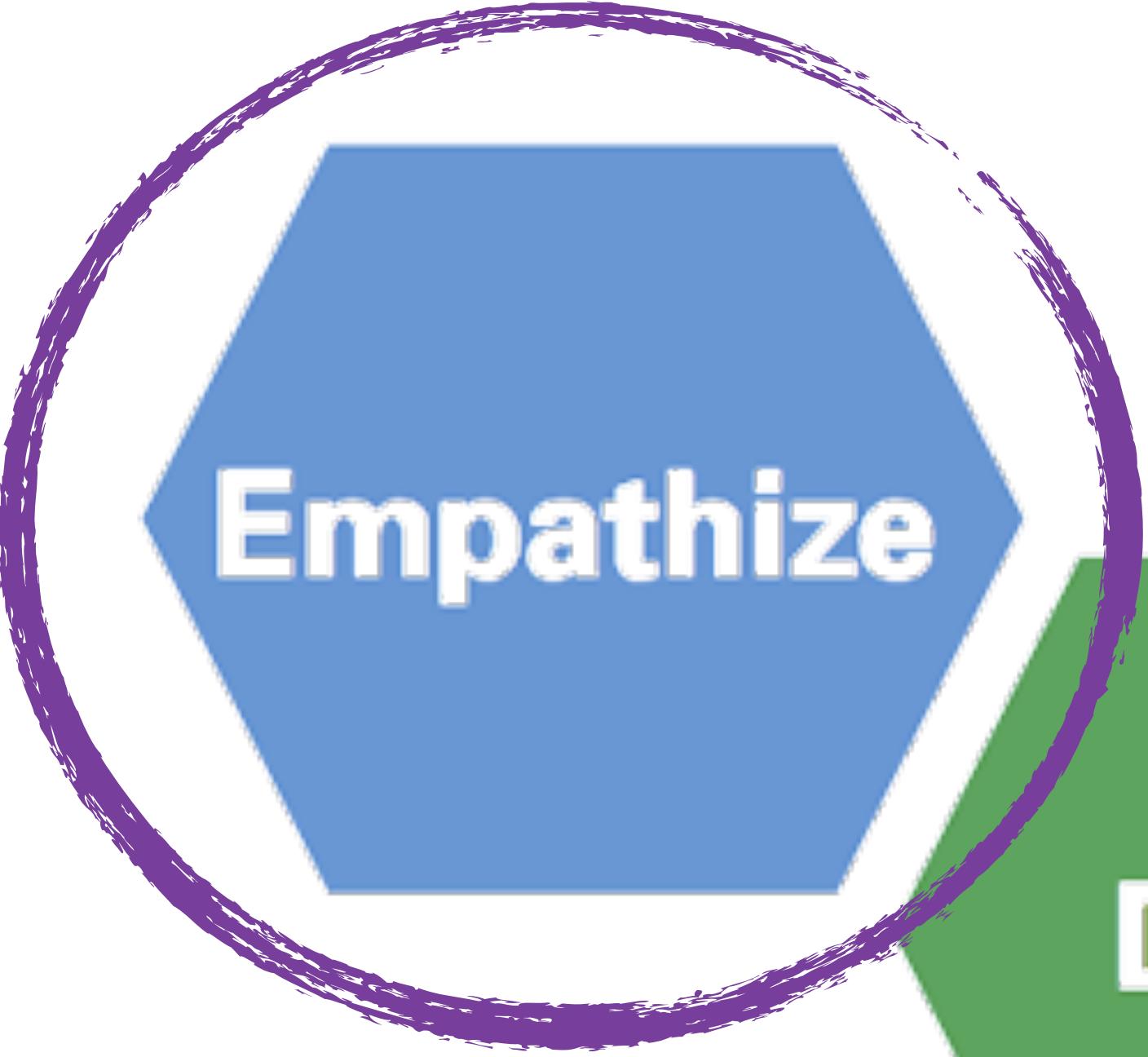
[▶ Listen 1 min](#)[+ Queue](#)[...](#)

Jul 6, 2015 · by The WNYC Data News Team

We're trying to estimate agony on the NYC subway by monitoring time between trains and adding unhappy points for stations typically crowded at rush hour. Let us know if our scoring matches your feelings. (Sorry, live data available only for these numbered lines.)

Last updated 02:40 pm EDT. [↻](#)

1	UPTOWN	😊	normal	▶
	DOWNTOWN	😊	normal	▶
2	UPTOWN	😊	normal	▶
	DOWNTOWN	😊	normal	▶
3	UPTOWN	😊	normal	▶
	DOWNTOWN	😊	normal	▶
4	UPTOWN	😊	normal	▶
	DOWNTOWN	😊	normal	▶
5	UPTOWN	😊	normal	▶
	DOWNTOWN	😊	normal	▶
6	UPTOWN	😊	normal	▶



Empathize

Define

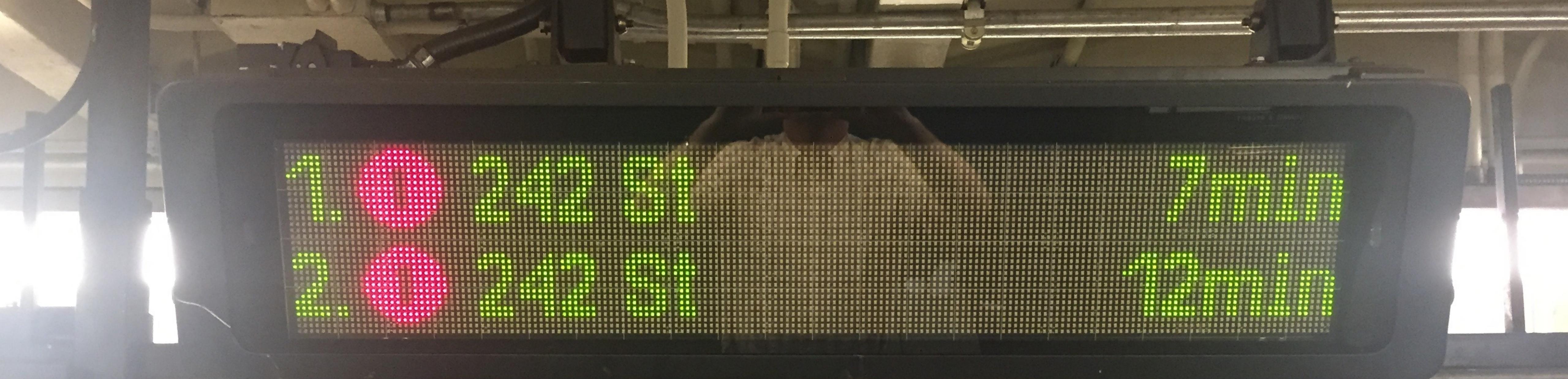
Ideate

Prototype

Test



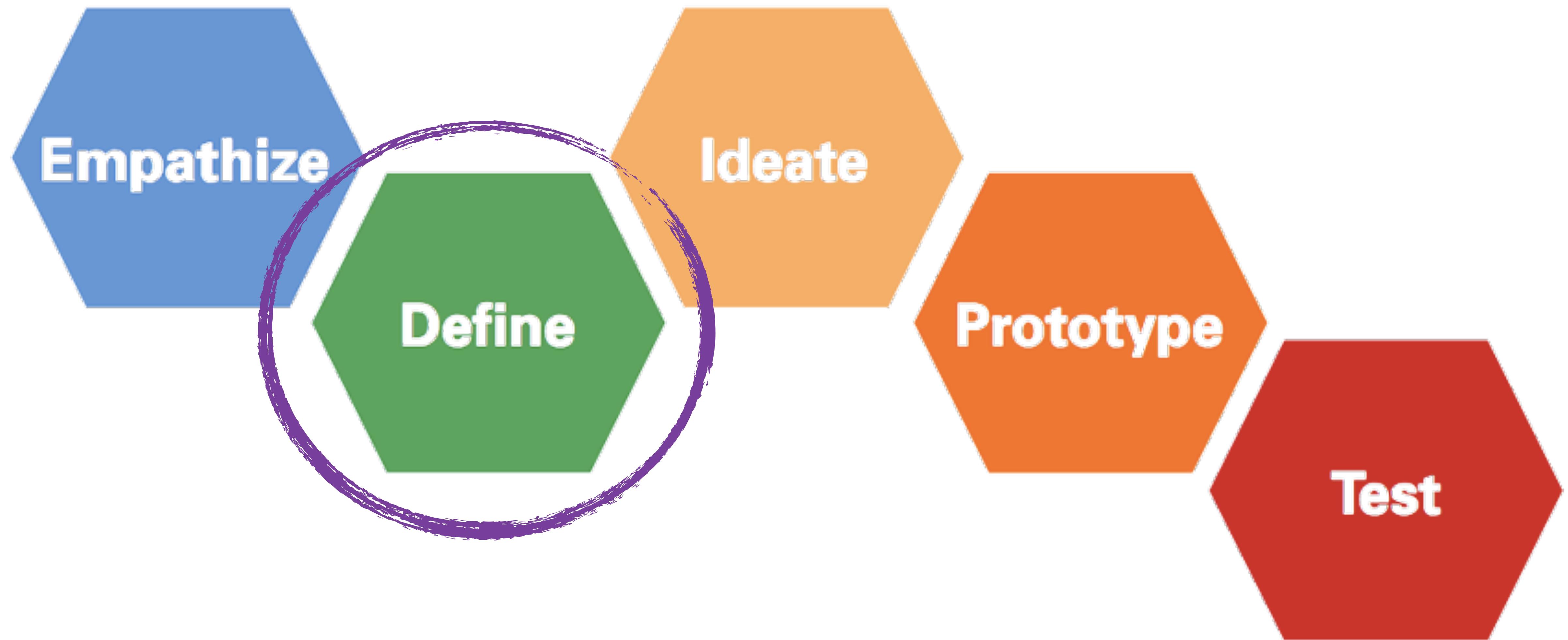
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The Bronx

The Bronx
Av Loca

Customer
Service

* R121-SG2 *

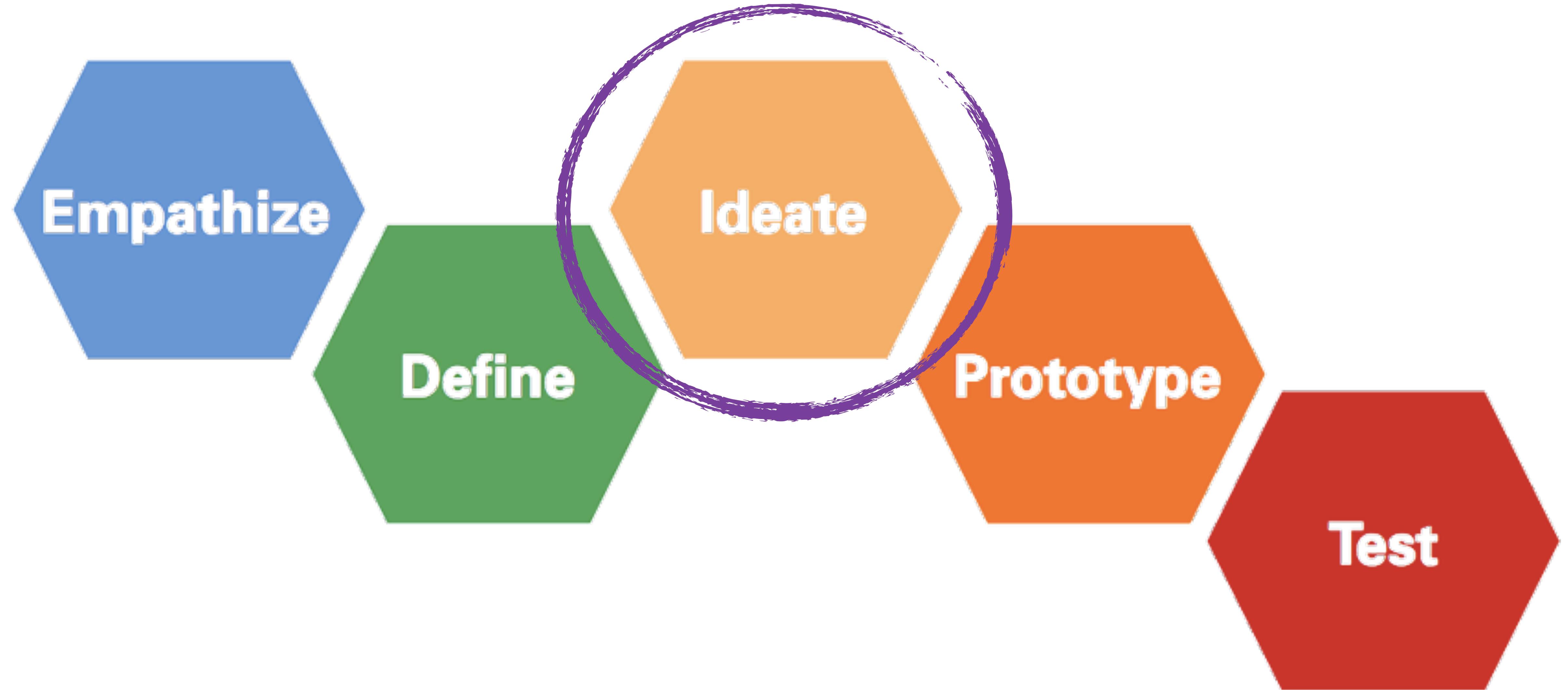


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is a

who needs

so she can



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I am not sure, btu my assumption is that bunching happens in segmeents of a line. But, it could happen for the whole line.



john 4:36 PM

We could show some kind of illustration of the situation:



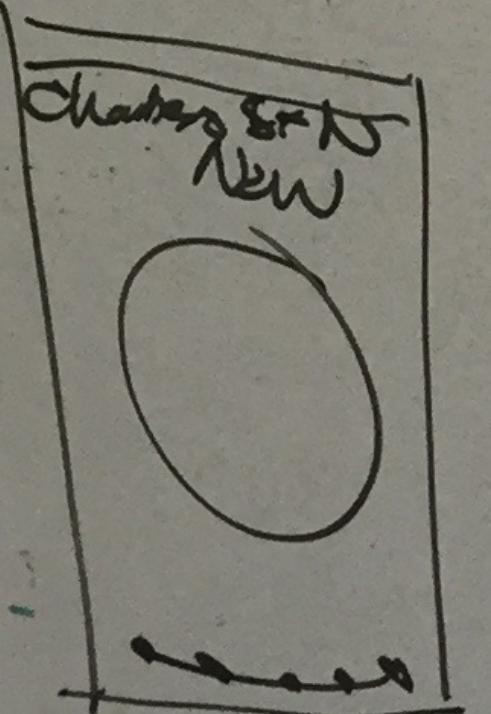
vs



alan 4:37 PM

Thats a good idea

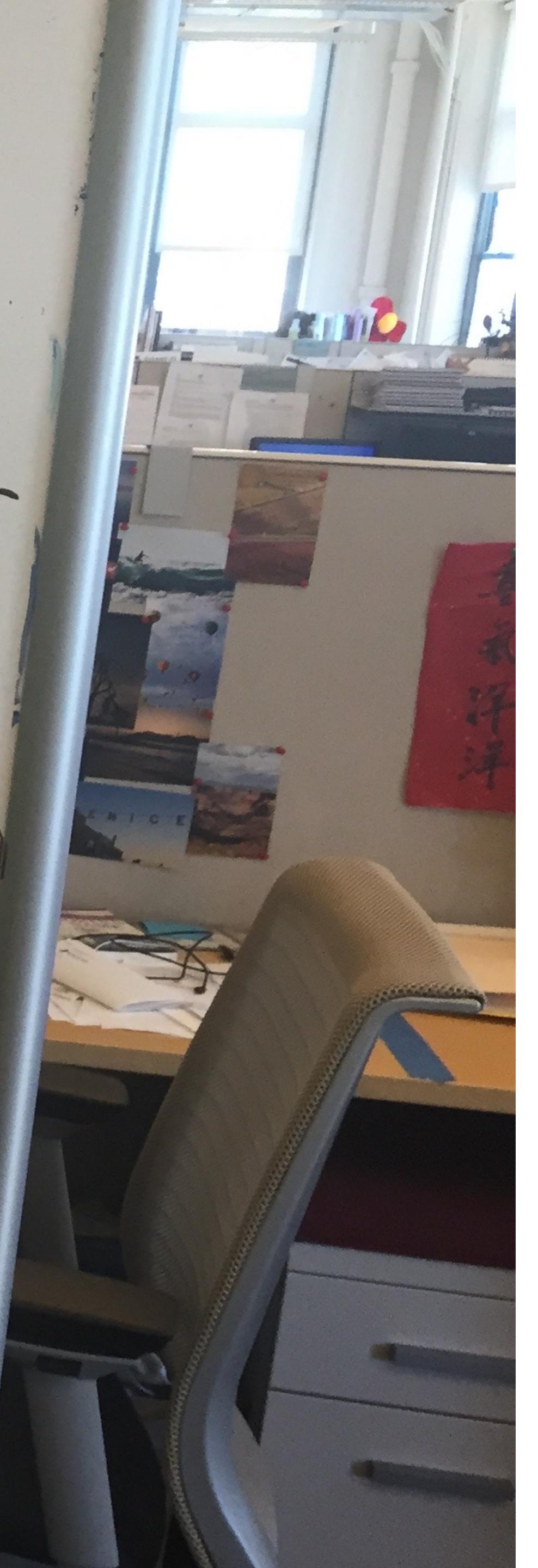
- Bikram Yoga
- Brighton Beach Steam Room
- Russian Bath



How much life sucks



Wait Δ
 $\text{Influx} +$
 $+ \text{of PPI}$ at
 (rate) tract fine
 elevation

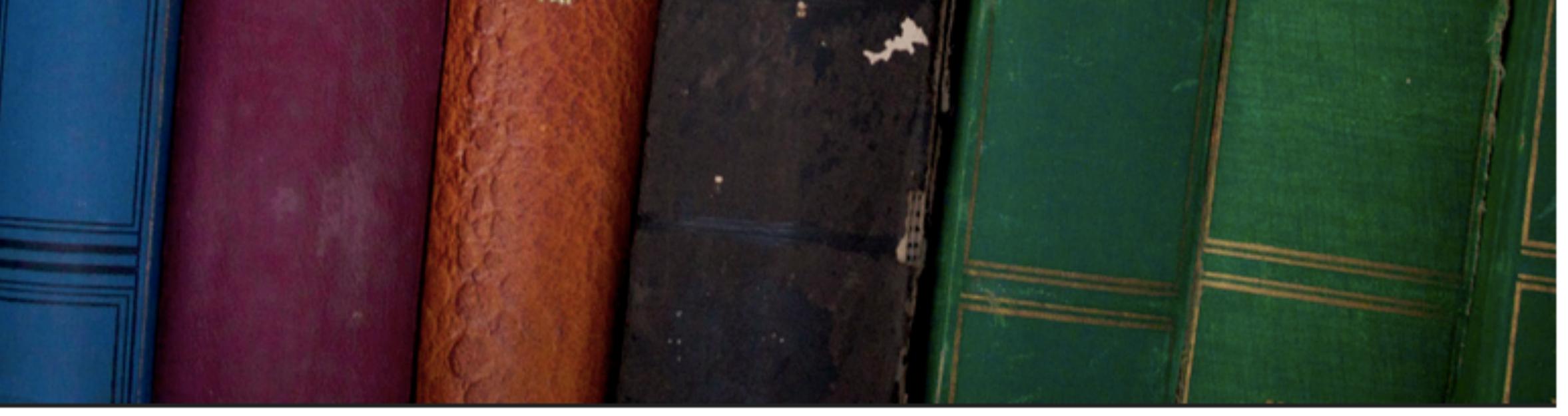


14 Google Calenda X When a Cop's F X Outlook Web Ap X Channel Archive X Expected Wait T X headway-times- X headway-for-1- X headway-for-link X headway-for-ho X

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← Geographic computing – Lat Lon or Making GTFS query more convenient →
Lon Lat?

OCTOBER 21, 2012 · 4:20 AM

↓ Jump to Comments

Expected Wait Time and Variance in Headway

Consider that there are 6 buses in an hour. The time between the arrival of the next bus is called headway. If there are evenly spaced out, the headway will be 10,10,10,10,10,10 minutes. But in a city with unpredictable traffic, the arrival time is often disturbed. What will be the perceived performance in those situation? For example, if the only second bus is delayed by 5 minutes, the headway will be 10,15,5,10,10,10. Or consider a more extreme case where the last three bus bunches together so that after a long gap, they all arrive together

Search

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- October 2012
- August 2012

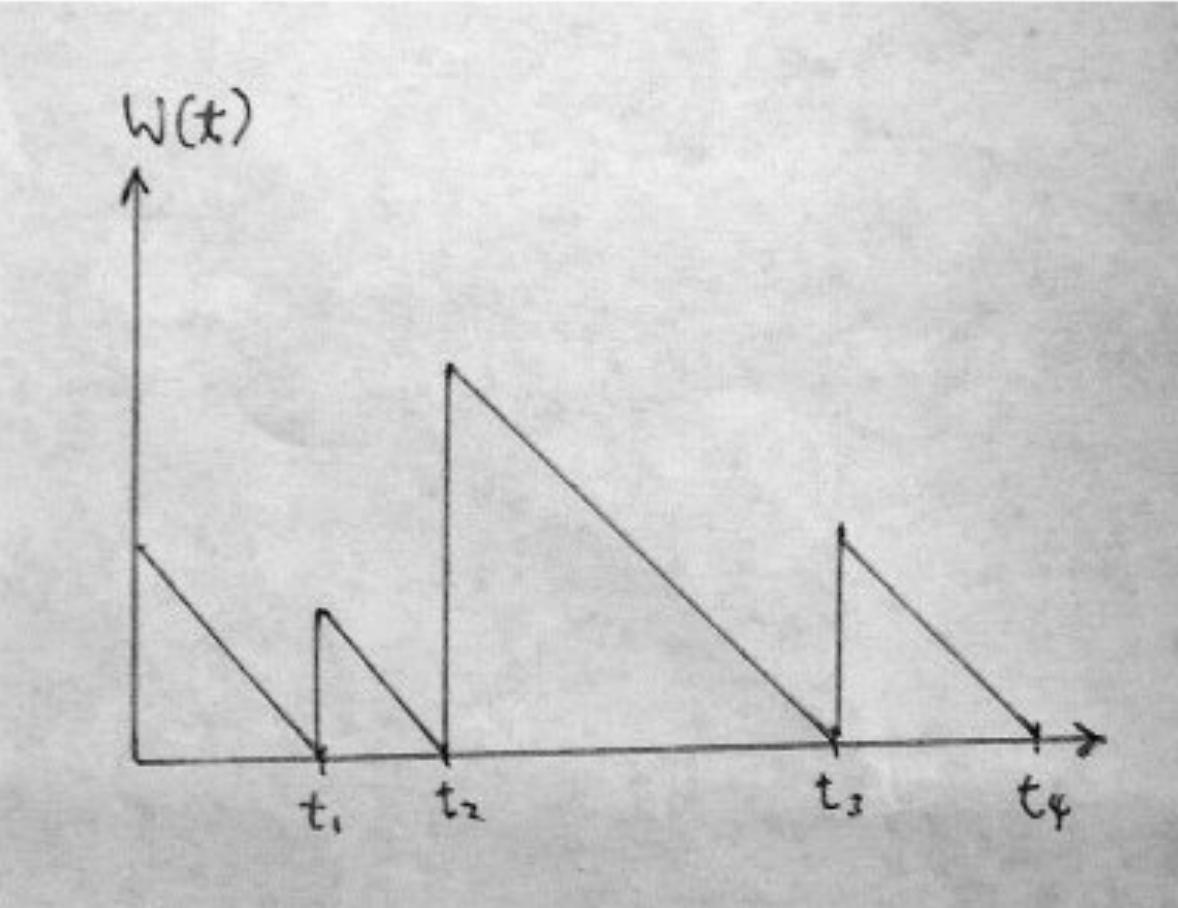
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14 Google Calendar X When a Cop's F X Outlook Web Ap X Channel Archive X Expected Wait T X headway-times- X headway-for-1- X headway-for-line- X headway-for-ho X

https://ontrakinfo.wordpress.com/2012/10/21/expected-wait-time-and-variance-in-headway/ Apps Start The Day Save to Instapaper Twitter / Notifications This. UltiPro - NEW Sept 2 Other Bookmarks

disturbance it causes. Instead we will calculate the expected wait time over the entire period of time.



Define $W(t)$ as the wait time when a person arrive the station at time t . The $W(t)$ chart looks like a sawtooth. It is highest when the passenger arrive just after a bus has left, and it will be 0 when the passenger arrive . Here t_i is when bus i arrives., h_i is the headway to the next bus and T is the sum of t_i .

The expected wait time is given by this formula

$$\int_0^T W(t)P(t)dt$$

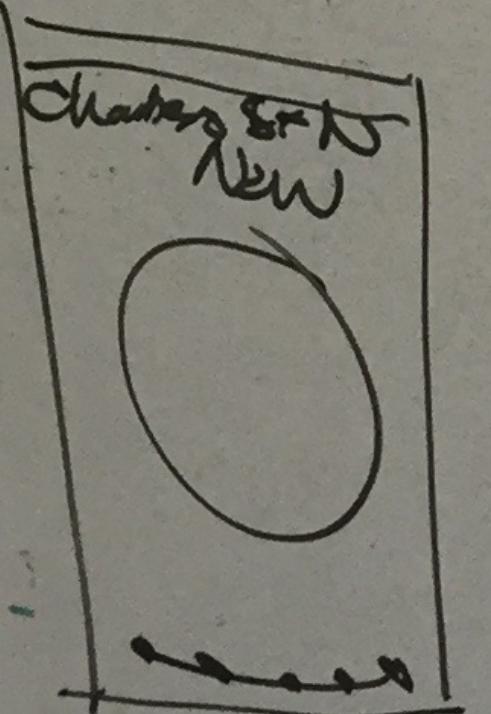
$P(t)$ is the probability density function of people arrive at time t . We assume people come uniformly. So $P(t)$ is simply $\frac{1}{T}$.

$$\begin{aligned} & \frac{1}{T} \sum_{i=1}^n \int_{t_{i-1}}^{t_i} W(t)dt \\ &= \frac{1}{T} \sum_{i=1}^n \frac{h_i^2}{2} \\ &= \frac{\sum h_i^2}{2T} \end{aligned}$$

Follow

headway-for-houston....png headway-for-line-1-at....png headway-for-1-at-14....png headway-times-for-h....png subwayagony_06231....png Show All

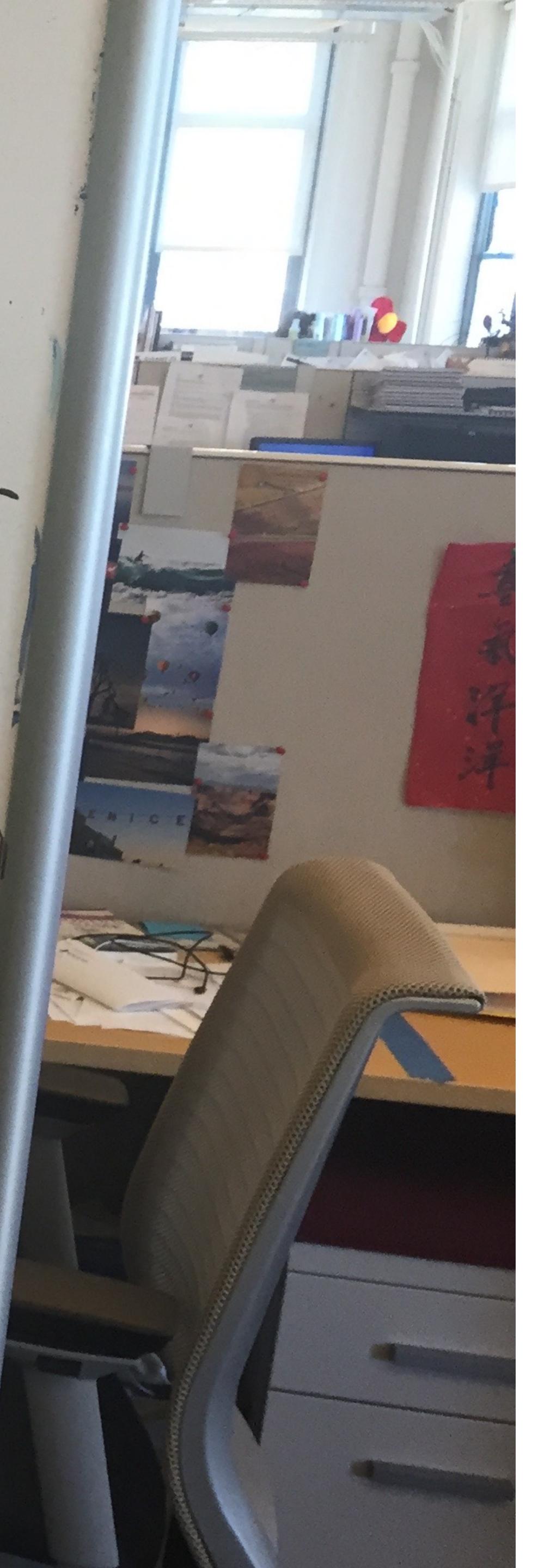
- Bikram Yoga
- Brighton Beach Steam Room
- Russian Bath

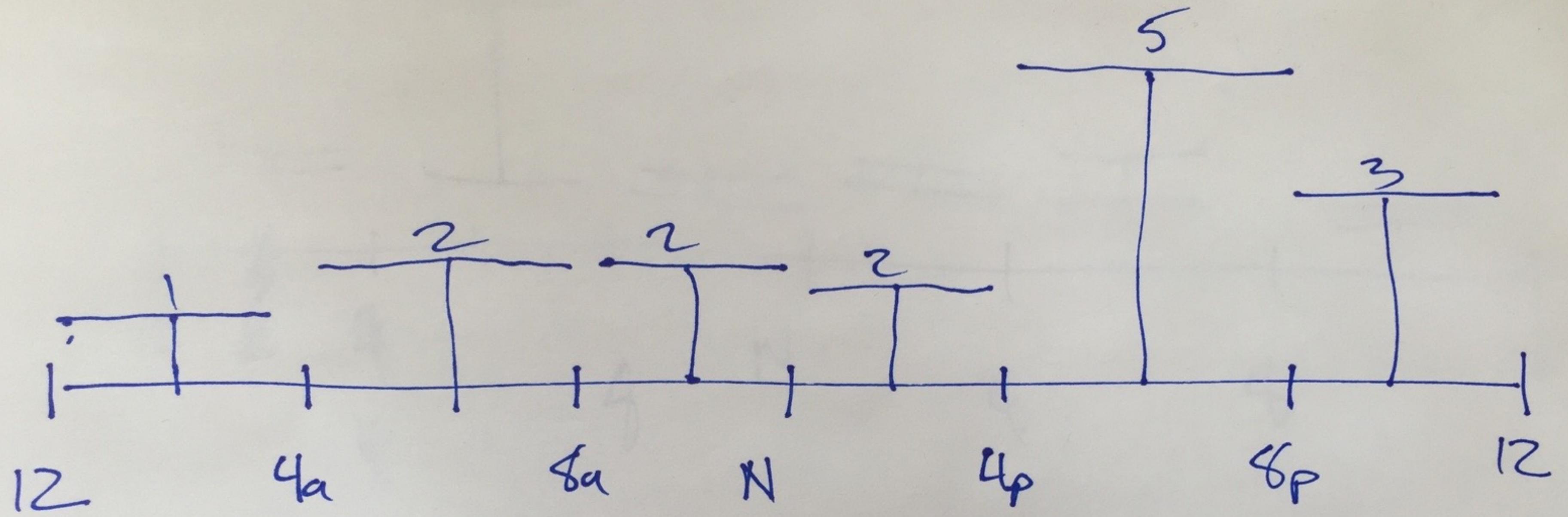


How much life sucks



Wait
 Δ
 $\text{Influx} +$
 $+ \text{of PPI}$
 (rate) treat fire
 elevation





Houston St
Mondays
(last 4 Mondays)

Headway for 1 at 14 St (N)

80 min



Apr. 4

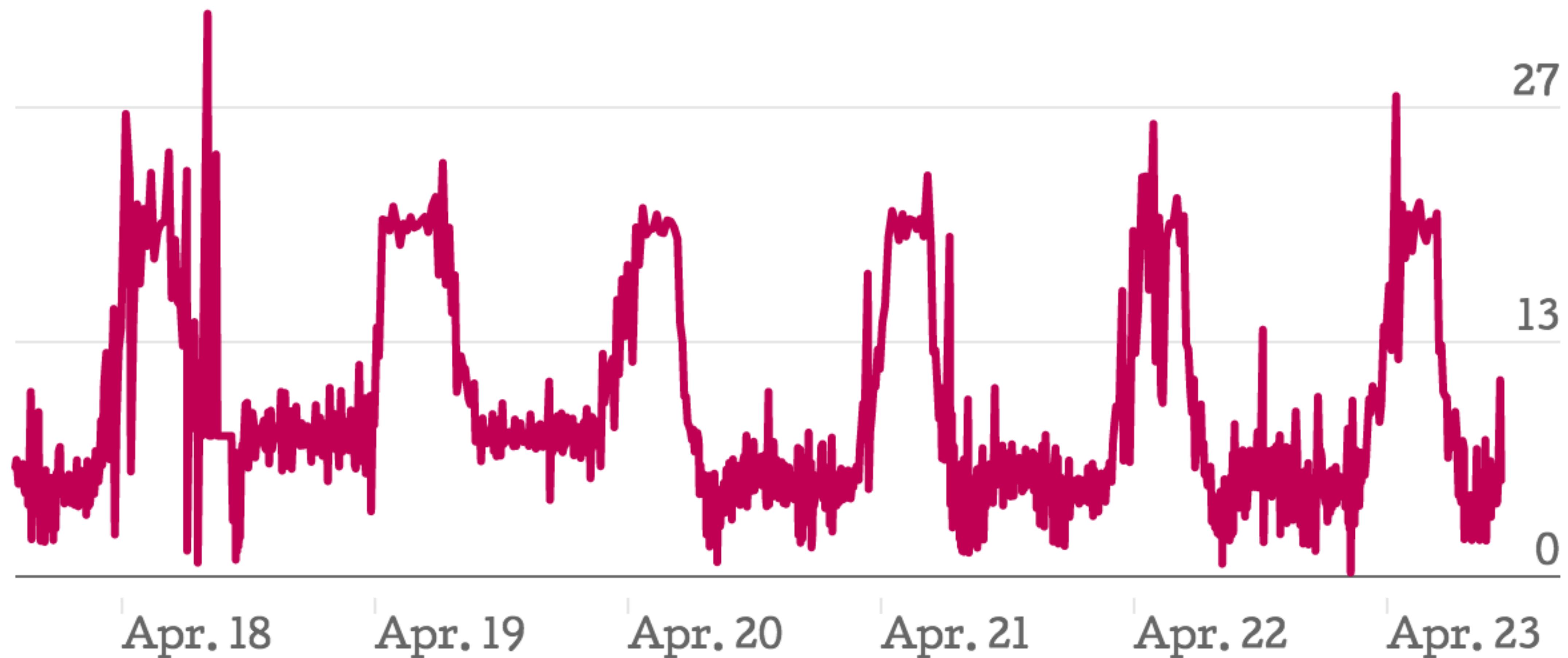
Apr. 5

Apr. 6

Made with Chartbuilder

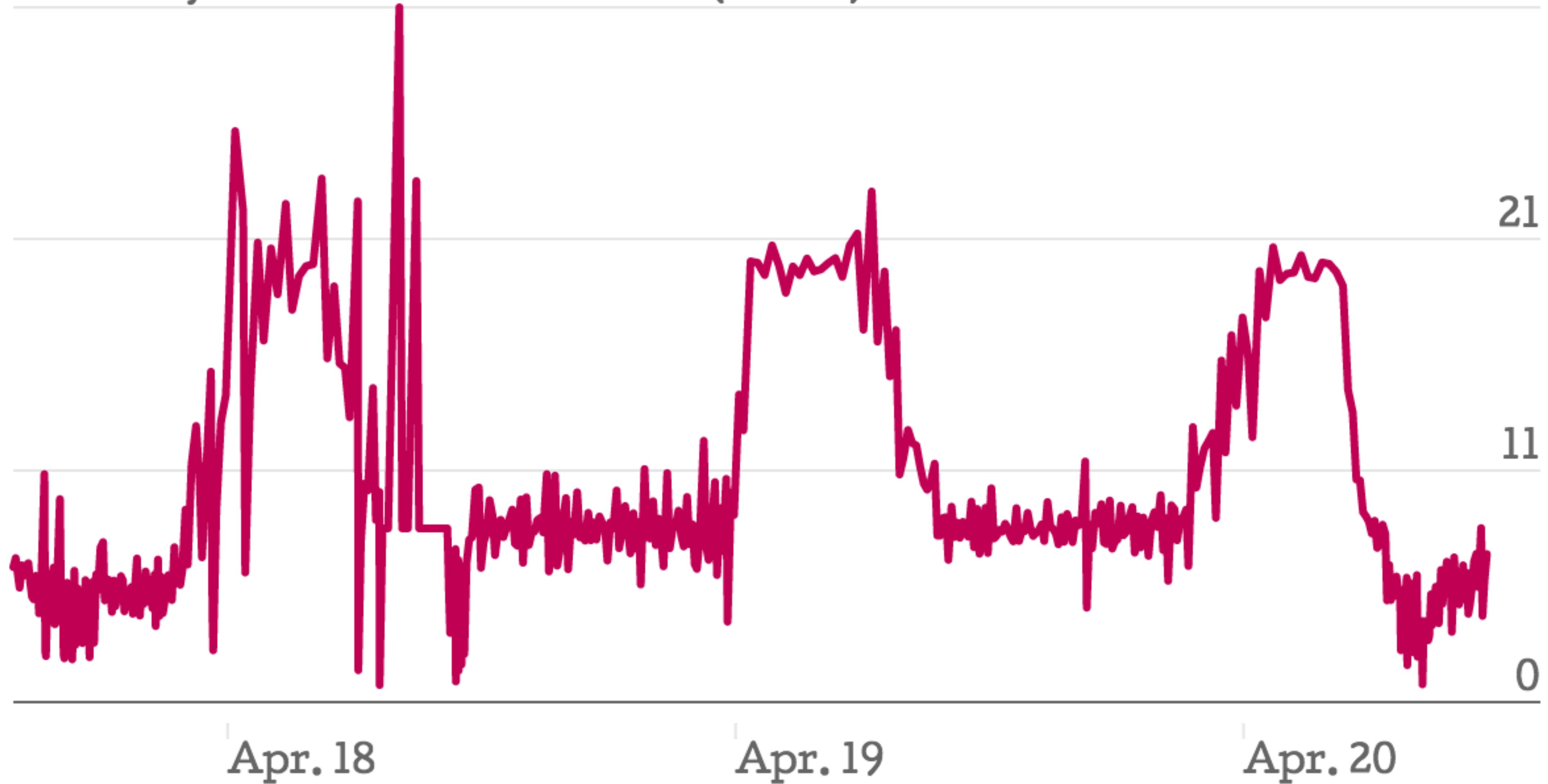
Headway for Houston St, Line 1, North

40 min



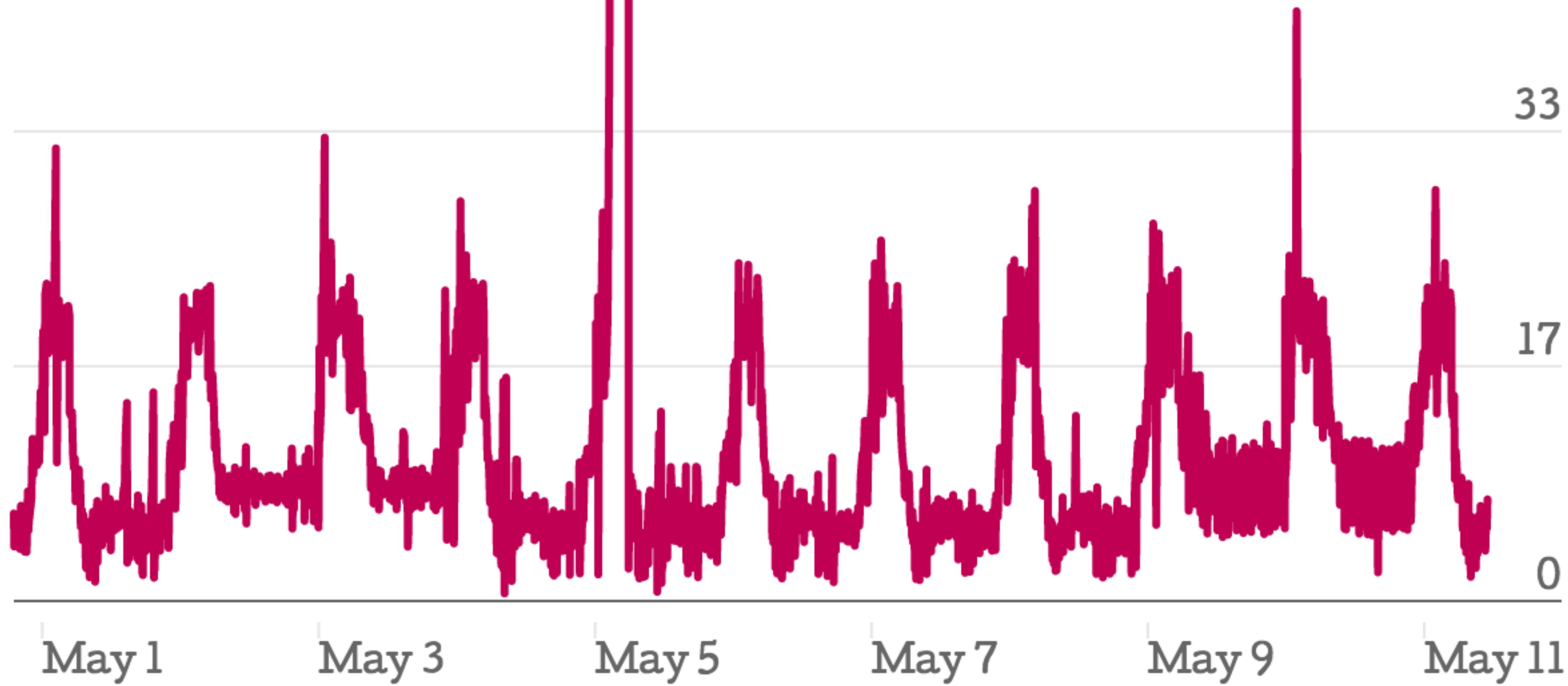
Headway for Line 1 at Houston St (North)

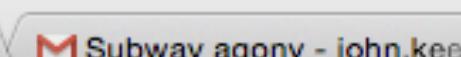
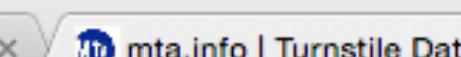
32 min



Headway times for Houston St Line 1 N

50 min



New Tab  

Subway agony - john.keefe x mta.info | Turnstile Data x

◀ ▶ C web.mta.info/developers/turnstile.html

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Home Schedules Fares & Tolls Maps Planned Service Changes MTA Info Doing Business With Us Transparency

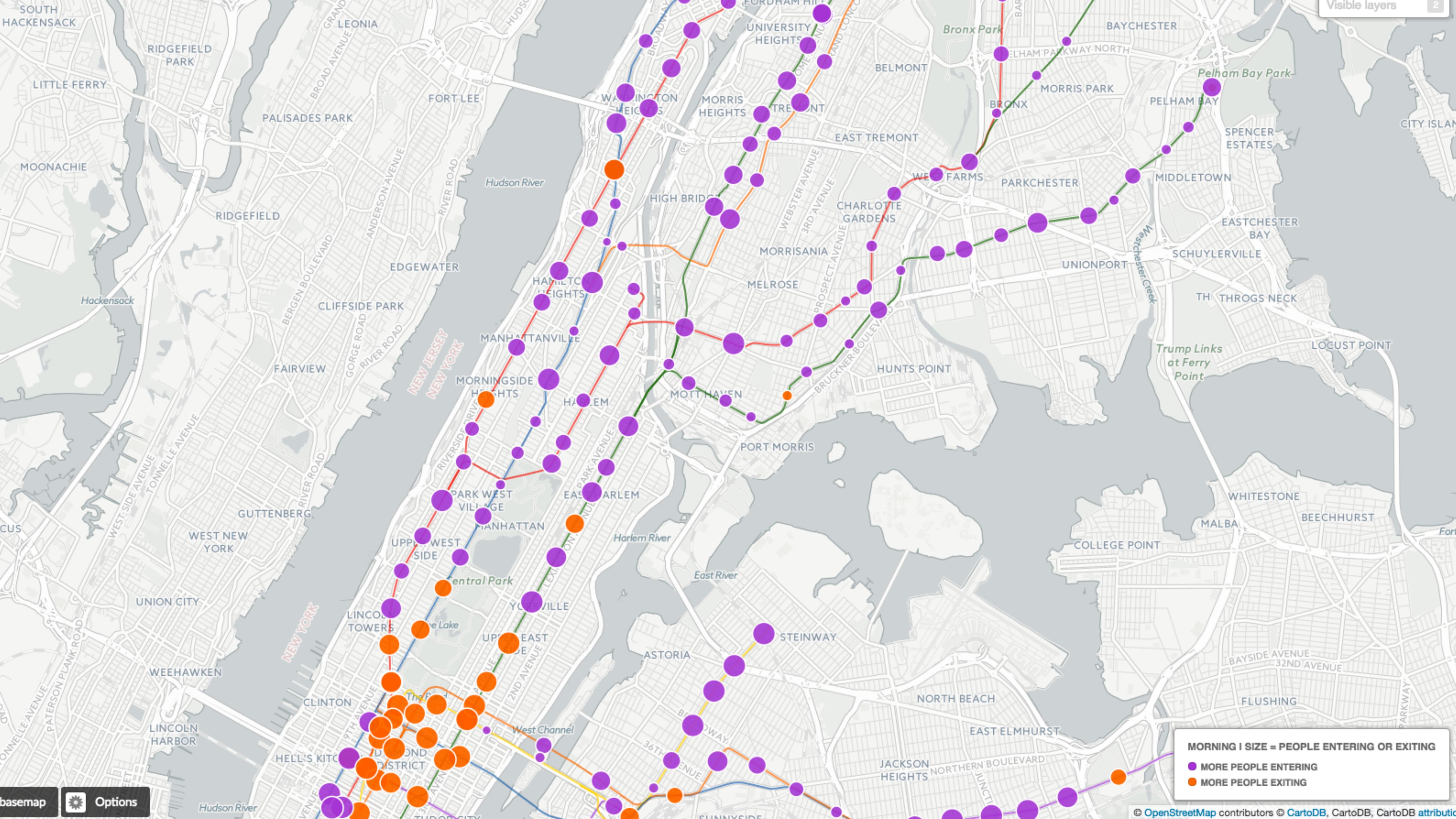
Turnstile Data

Key/Resources

- ▶ Field Description:
 - ▶ Prior to 10/18/14
 - ▶ Current
- ▶ Remote Unit/Control Area/Station Name Key

Data Files

Saturday, October 10, 2015
Saturday, October 03, 2015
Saturday, September 26, 2015
Saturday, September 19, 2015
Saturday, September 12, 2015
Saturday, September 05, 2015
Saturday, August 29, 2015
Saturday, August 22, 2015
Saturday, August 15, 2015
Saturday, August 08, 2015
Saturday, August 01, 2015
Saturday, July 25, 2015
Saturday, July 18, 2015
Saturday, July 11, 2015
Saturday, July 04, 2015
Saturday, June 27, 2015
Saturday, June 20, 2015
Saturday, June 13, 2015
Saturday, June 06, 2015
Saturday, May 30, 2015
Saturday, May 23, 2015
Saturday, May 16, 2015
Saturday, May 09, 2015
Saturday, May 02, 2015
Saturday, April 25, 2015



stops_badness_v2.ods - LibreOffice Calc

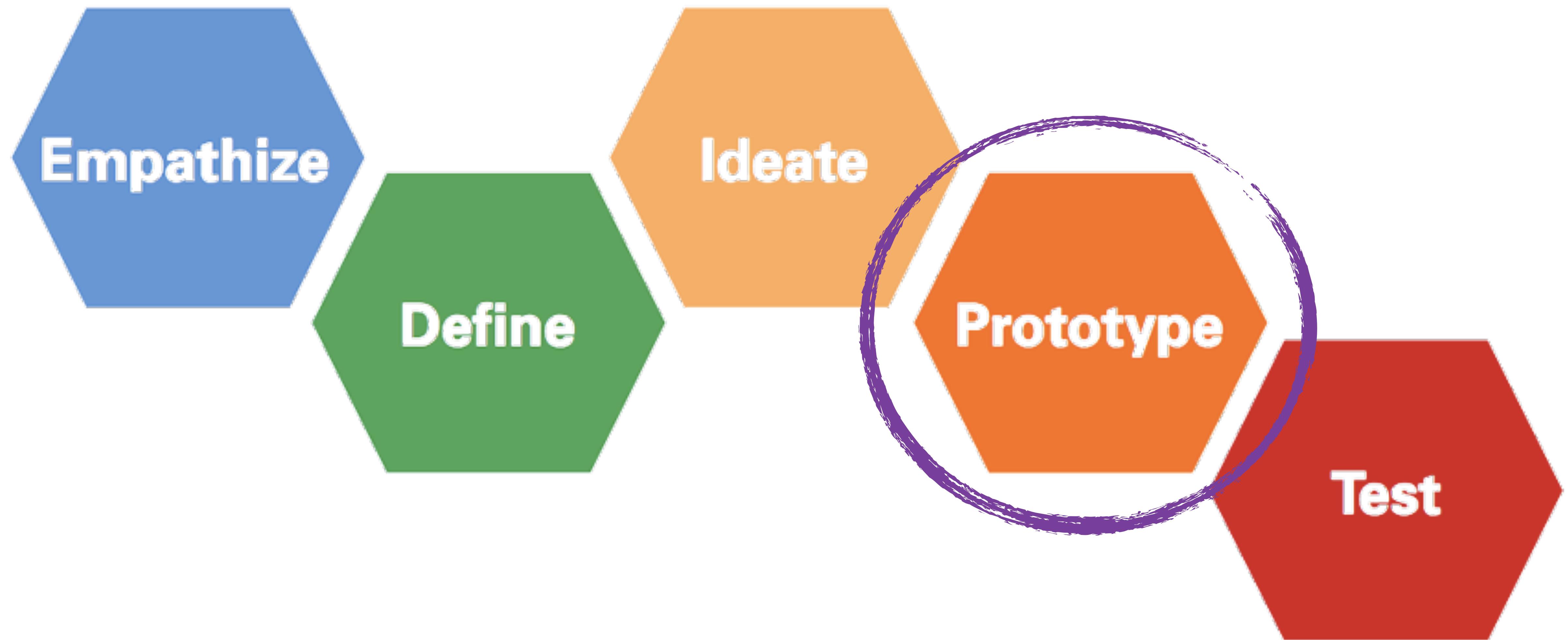
Arial 10 % 0.00

C1 stop_sequence

	A	B	C	D	E	F	G	H
1	route	stop_id	stop_sequence	am_badness	pm_badness	stop_name	direction	
2	1	101S	1	1	0	Van Cortlandt Park - 242 St	inbound	
3	1	103S	2	1	0	238 St	inbound	
4	1	104S	3	1	0	231 St	inbound	
5	1	106S	4	1	0	Marble Hill - 225 St	inbound	
6	1	107S	5	1	0	215 St	inbound	
7	1	108S	6	1	0	207 St	inbound	
8	1	109S	7	1	0	Dyckman St	inbound	
9	1	110S	8	1	0	191 St	inbound	
10	1	111S	9	1	0	181 St	inbound	
11	1	112S	10	1	0	168 St - Washington Hts	inbound	
12	1	113S	11	2	0	157 St	inbound	
13	1	114S	12	2	0	145 St	inbound	
14	1	115S	13	1	0	137 St - City College	inbound	
15	1	116S	14	2	0	125 St	inbound	
16	1	117S	15	2	0	116 St - Columbia University	inbound	
17	1	118S	16	2	0	Cathedral Pkwy	inbound	
18	1	119S	17	2	0	103 St	inbound	
19	1	120S	18	2	0	96 St	inbound	
20	1	121S	19	2	0	86 St	inbound	
21	1	122S	20	2	0	79 St	inbound	
22	1	123S	21	2	1	72 St	inbound	
23	1	124S	22	0	1	66 St - Lincoln Center	inbound	
24	1	125S	23	0	1	59 St - Columbus Circle	inbound	
25	1	126S	24	0	2	50 St	inbound	
26	1	127S	25	0	2	Times Sq - 42 St	inbound	

Sheet1 Sheet1_2 Sheet2 Find Match Case Sum=0 143%

Sheet 1 / 3 Default



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- As of 9:04 am...
- ① ~~uptown ☺ good details>~~
~~downtown ☹ bad details>~~
 - ② ~~uptown ☹ terrible details>~~
~~downtown ☹ terrible details>~~
 - ③ ...
44

The outbound trains in the last hour are:

1 😊 normal [details ►](#)

2 😕 not great [details ►](#)

3 😢 terrible [details ►](#)

4 😭 UUGGGH [details ►](#)

5 😊 normal [details ►](#)

6 😊 normal [details ►](#)

7 😊 normal [details ►](#)

This is

on point

off

The outbound trains at 5:03pm are:

1  normal [details ▶](#)

2  not great [details ▶](#)

3  terrible [details ▶](#)

4  just ugh [details ▶](#)

5  normal [details ▶](#)

6  normal [details ▶](#)

7  normal [details ▶](#)

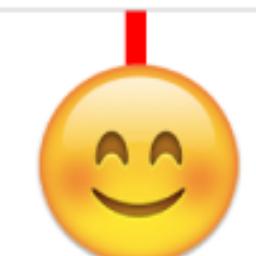
This is

on point

off

1

◀ back to all trains
outbound last hr



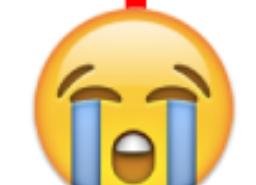
28th St
normal



23th St
not great



18th St
terrible



14th St
UUGGGH



Christopher St
normal



Houston St
normal



Canal St
normal



Park Pl
normal





Fulton St
meh

Wall St
meh

Clark St
meh

Borough Hall
horrible

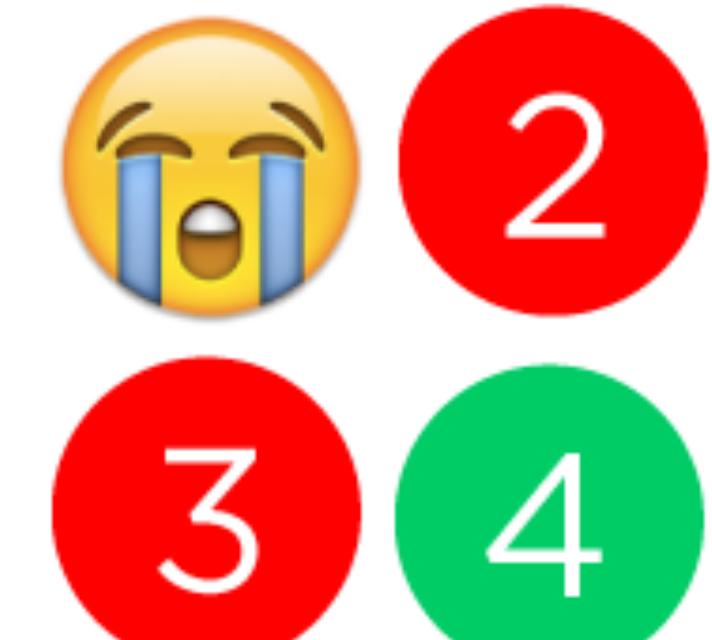
Hoyt St
horrible

#MTAgony



wnyc.org/MTAgony

#MTAgony



wnyc.org/MTAgony

#MTAgony



wnyc.org/MTAgony

#MTAgony



wnyc.org/MTAgony

Last updated 02:20 pm EDT.

1	UPTOWN		normal	
	DOWNTOWN		normal	
2	UPTOWN		normal	
	DOWNTOWN		normal	
3	UPTOWN		normal	
	DOWNTOWN		normal	
4	UPTOWN		normal	
	DOWNTOWN		normal	
5	UPTOWN		normal	
	DOWNTOWN		normal	
6	UPTOWN		normal	
	DOWNTOWN		normal	

Is this accurate?

Yes

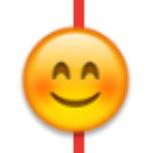
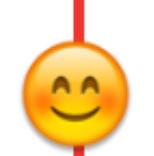
No

1

[◀ back to all trains](#)
UPTOWN

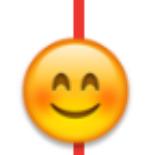
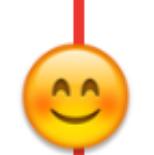
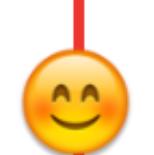
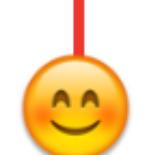
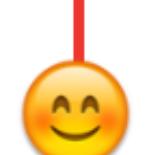
- Rector St
normal [▶](#)
- Cortlandt St
normal [▶](#)
- Chambers St
normal [▶](#)
- Franklin St
normal [▶](#)
- Canal St
normal [▶](#)
- Houston St
normal [▶](#)
- Christopher St - Sheridan Sq
normal [▶](#)
- 14 St
normal [▶](#)
- 18 St
normal [▶](#)
- 23 St
normal [▶](#)
- 28 St
normal [▶](#)
- 34 St - Penn Station
normal [▶](#)

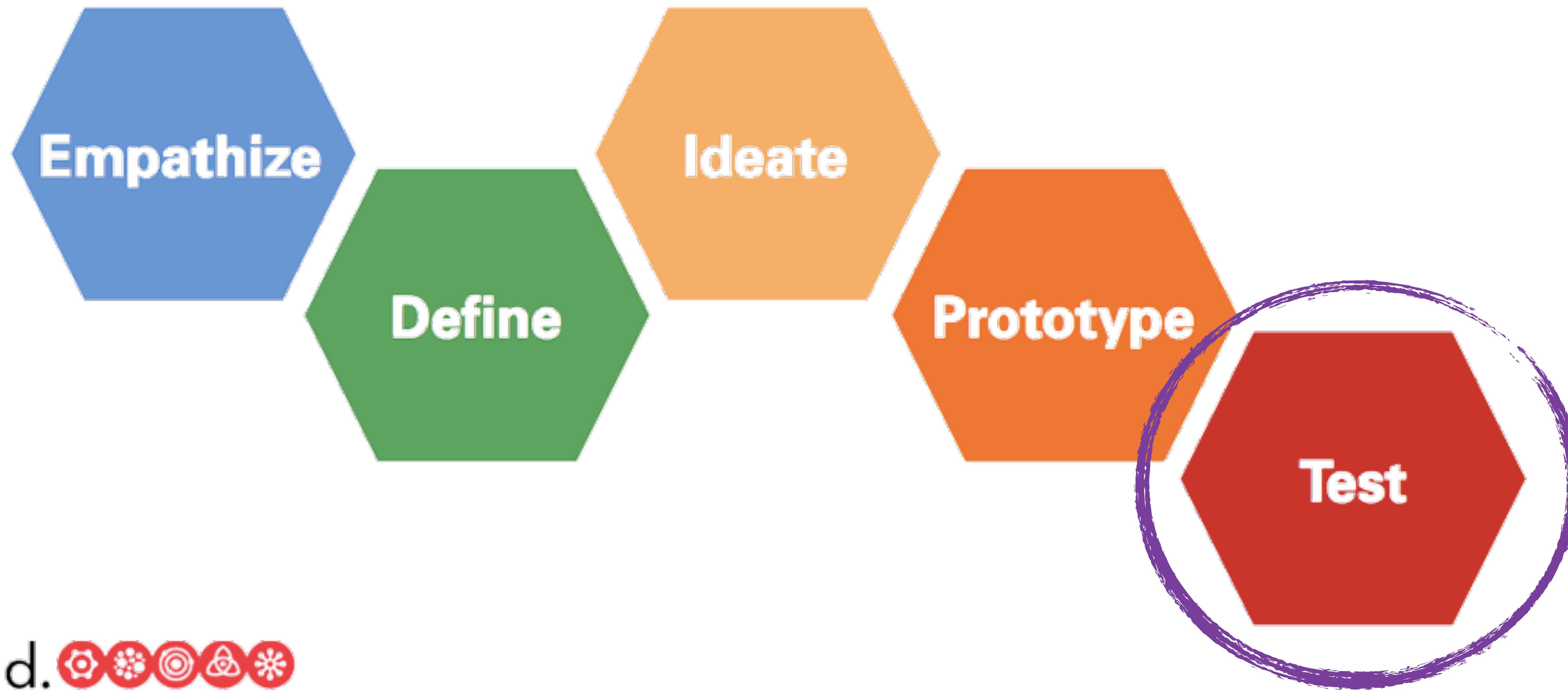
1

[◀ back to all trains](#)
UPTOWN Rector St
normal Cortlandt St
normal Chambers St
normal Franklin St
normal

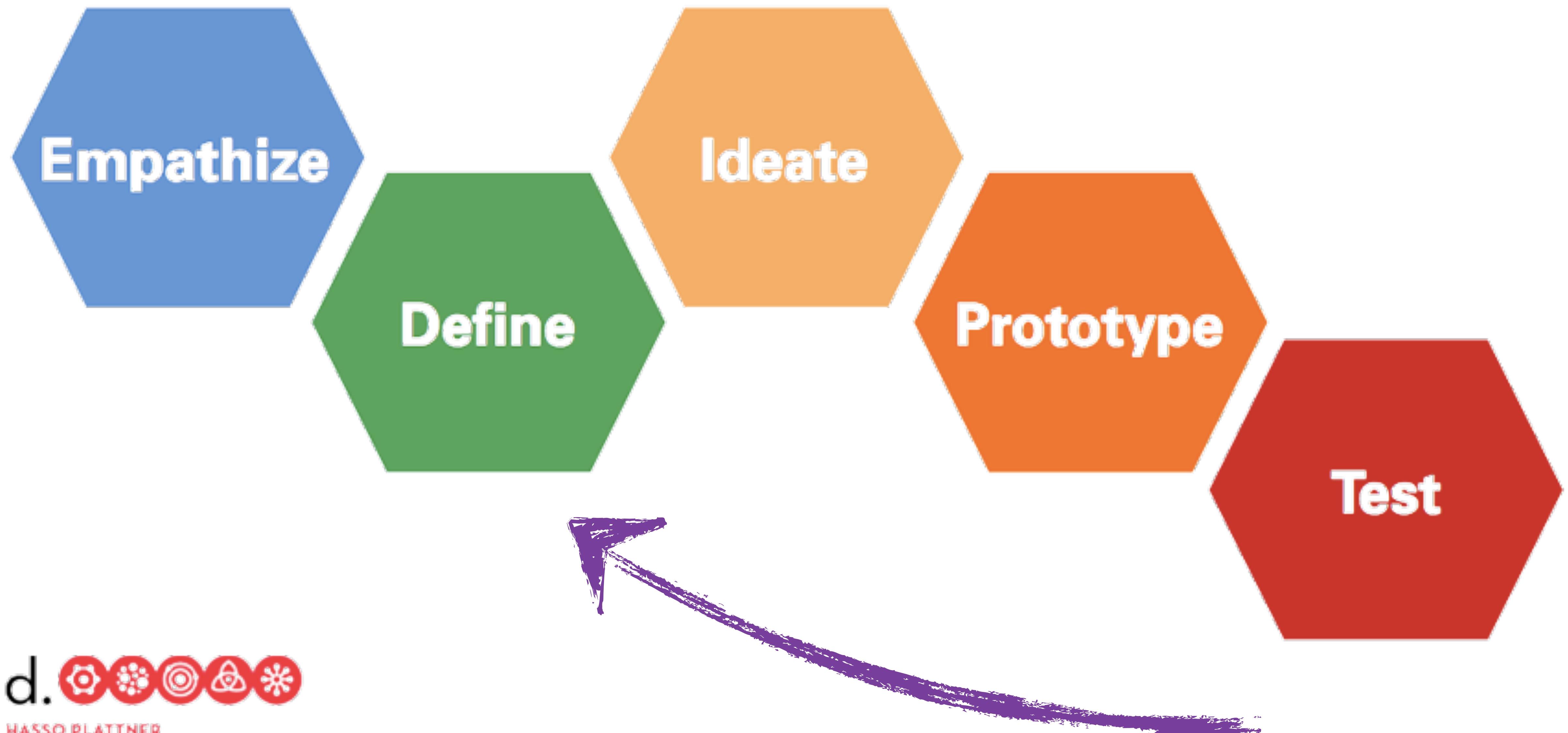
Scheduled frequency: 6 minutes
Actual frequency: 7 minutes

Is this accurate?

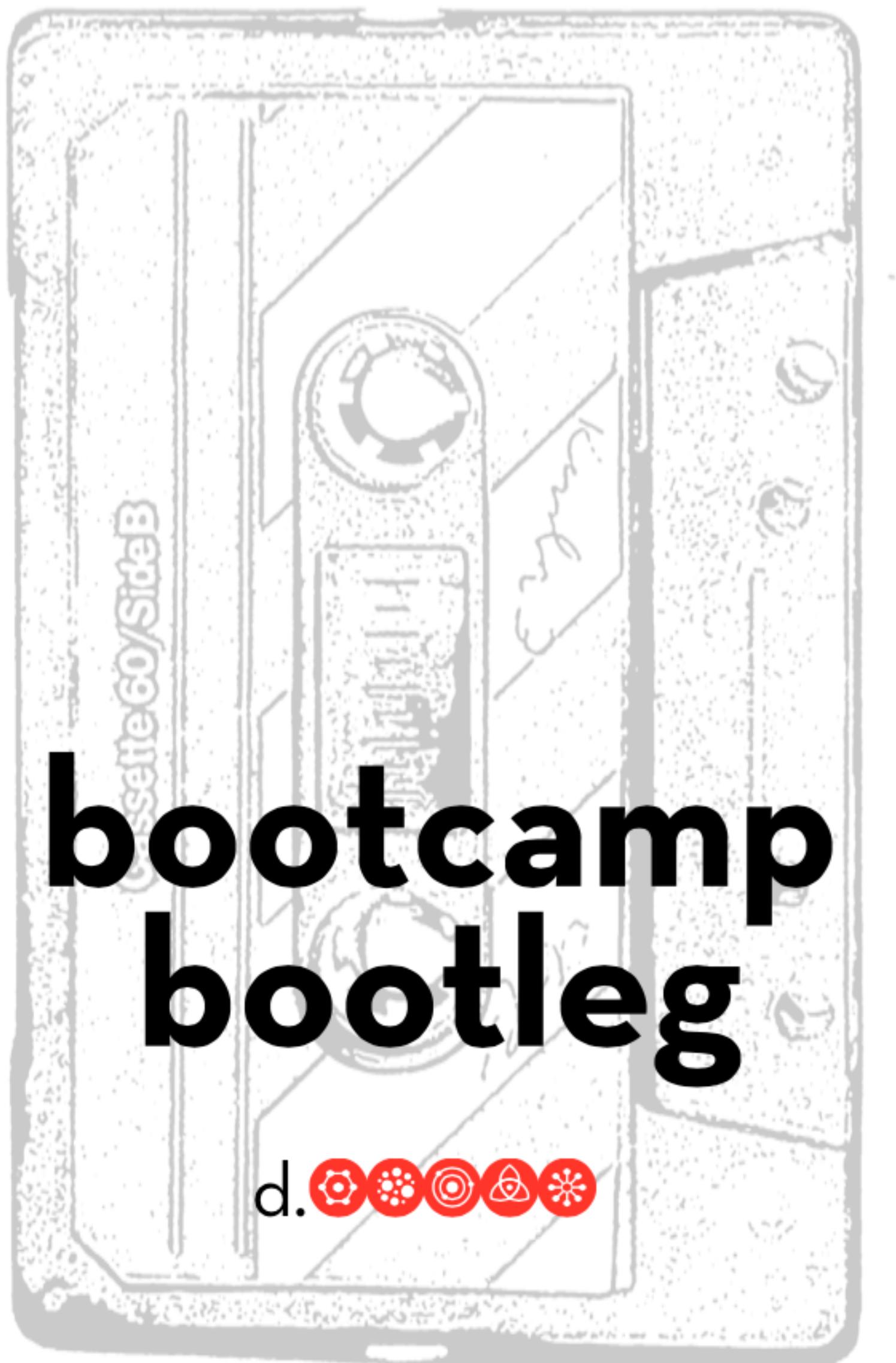
[yes](#)[no](#) Canal St
normal Houston St
normal Christopher St - Sheridan Sq
normal 14 St
normal 18 St
normal 23 St



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bit.ly/d-thinking-bootleg