

Quantified Self

Ethnography of a
Digital Culture

Who am I?

- **Anthropologist**

- Study of cultures
- Fieldwork in **Belize, Ecuador, Silicon Valley**
- Not like Indiana Jones

- **Informatician**

- Study of information
- Specialization in Human-Computer Interaction
- Not related to magicians

Motivation

- Data is fascinating
- Our lives are increasingly data-driven
- We know relatively little about this culture



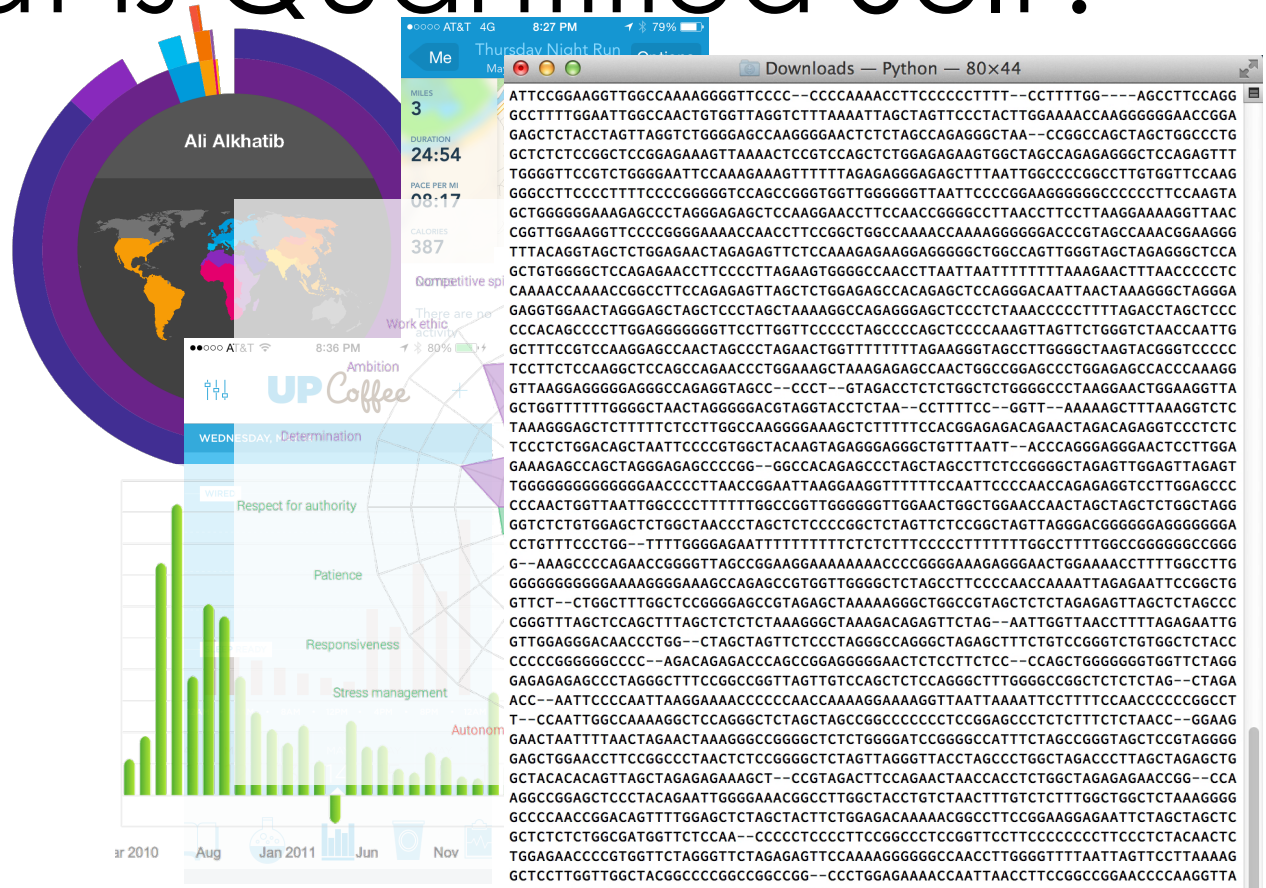
What is Quantified Self?

- Genetics
- Fitness
- Sleep
- Nutrition
- Finance
- Cognition



What is Quantified Self?

- Genetics
- Fitness
- Sleep
- Nutrition
- Finance
- Cognition
- Big Data



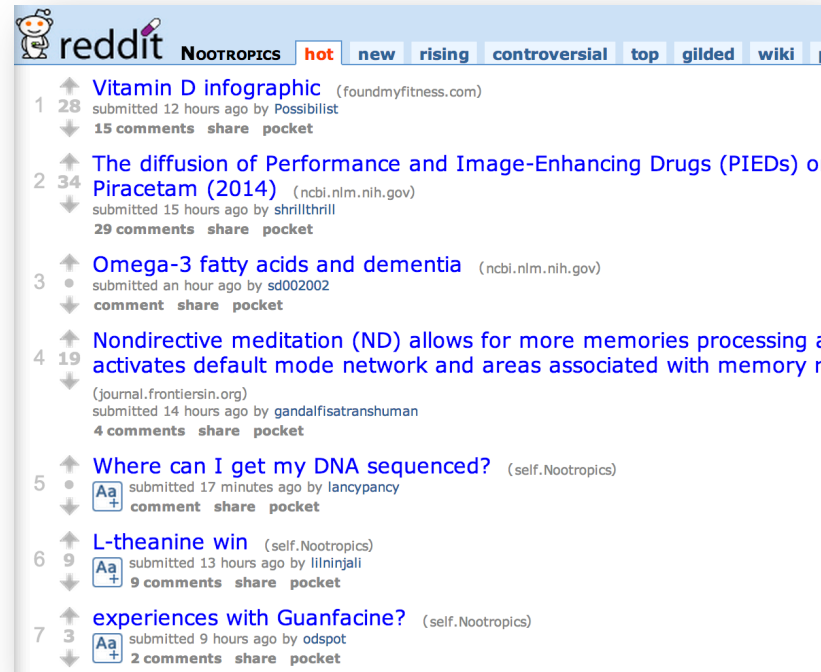
So Quantified Self is...

Kind of everything.

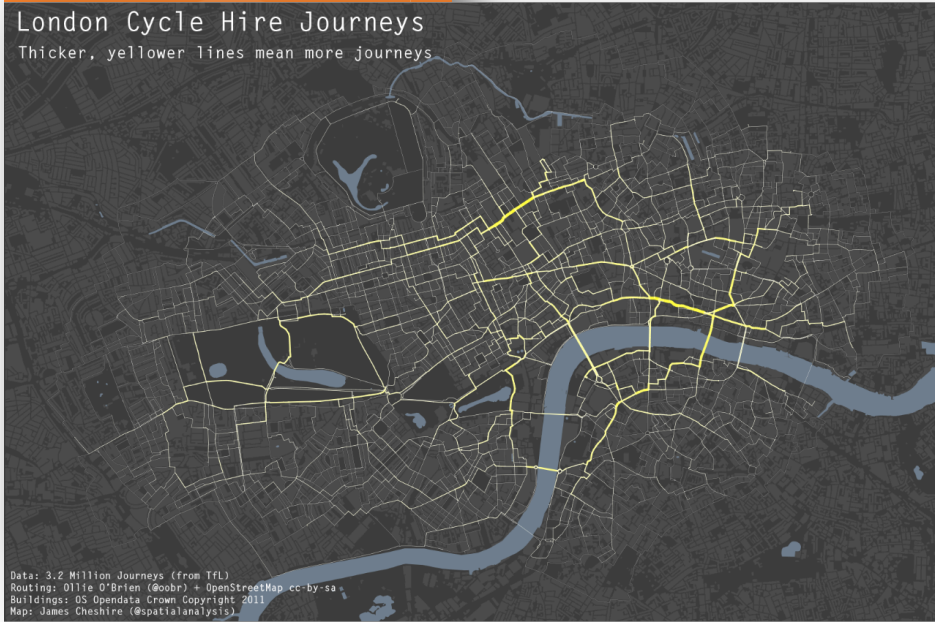
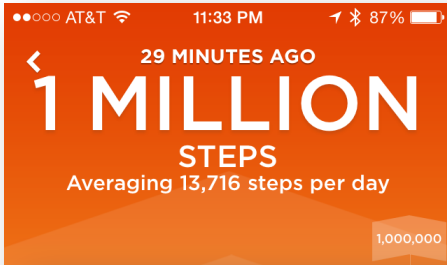
Sorry, that's not very helpful.

Some Literature

- Historical background
 - Censuses
- Public Science
 - Reddit
- Health
 - Genome sequencing



Some Literature



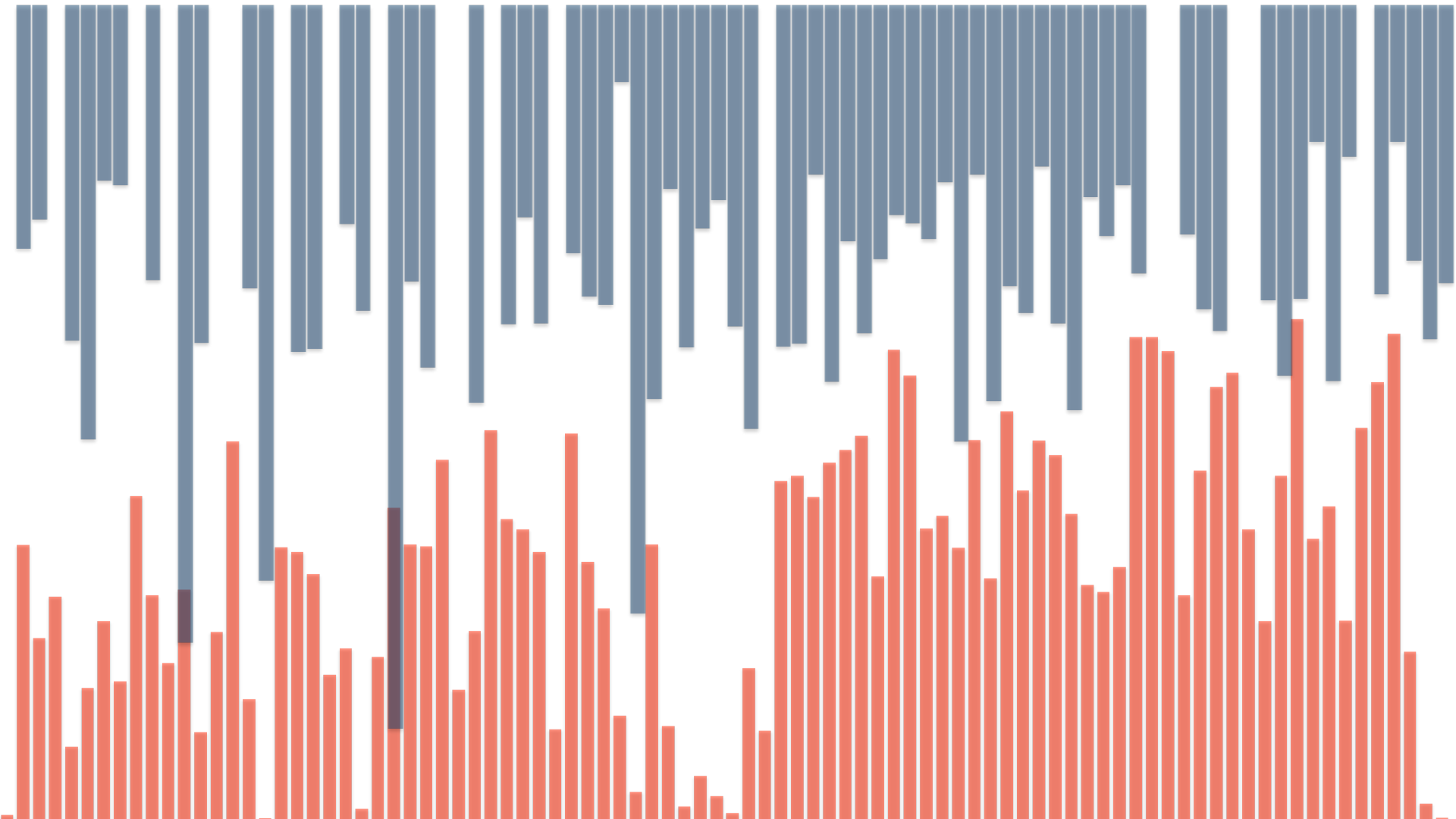
- Gamification
 - Competitive steps
- Algorithmic Living
 - Data-driven life
- Quantified Other
 - Comparative analytics
- Big Data
 - City-scale data

Quantified Self, the Culture

- Self-scrutinizing
- Private *and* Public
- Democratizing
- Digital *and* Analog

Methods

- Interviewing
- Content analysis
- Participant-observation
 - Jawbone UP
 - Withings Scale
 - Mint
 - Last.fm
 - 23andMe
 - Pocket
 - Runkeeper



UP COFFEE EXPERIMENTS

AFFECT YOUR SLEEP?

UP COFFEE EXPERIMENT #3

10 DAYS OF DATA



It's just as we thought. The more caffeine you consume, the worse you sleep. You've been averaging 387mg a day. Every extra 20mg of caffeine in your bloodstream at bedtime costs you 13m of shut-eye. Bottom line? Mom was right.

Generated on May 5th. Log caffeine and sleep for 9 more days to refresh.



CAFFEINE CONSUMPTION

SLEEP AVERAGE



TONS

450 MG+ per day

5h 22m

based on 14 days



LOTS

300-449 MG

5h 39m

based on 23 days



MORE

150-299 MG

6h 56m

based on 11 days



SOME

0-149 MG

No readings yet

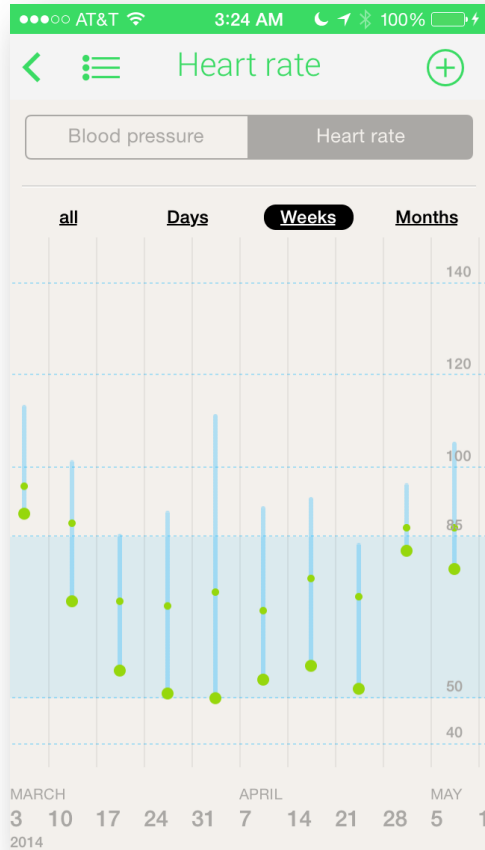
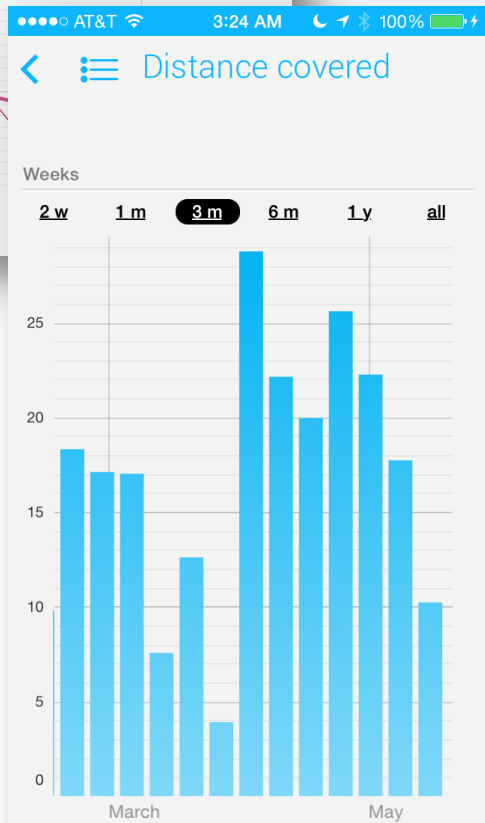
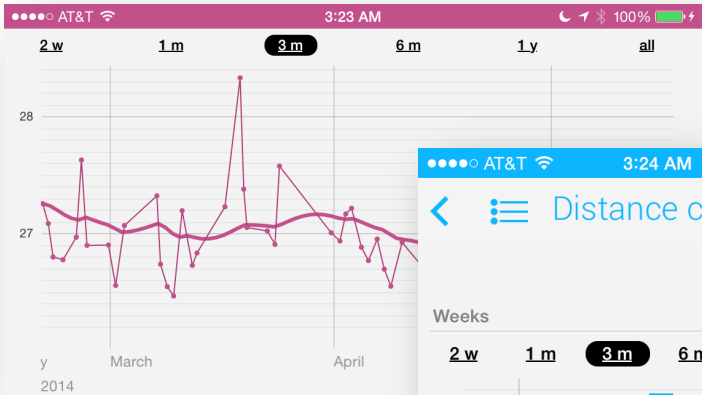


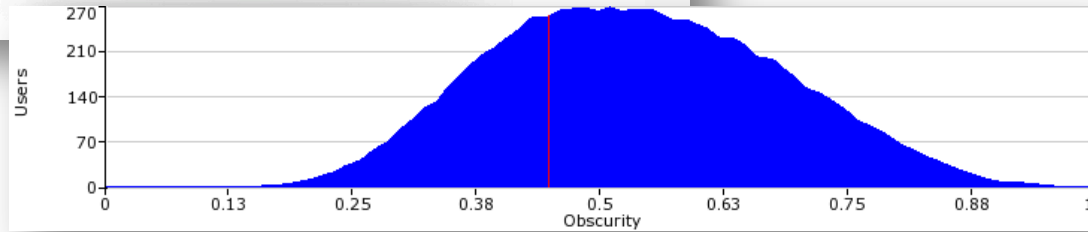
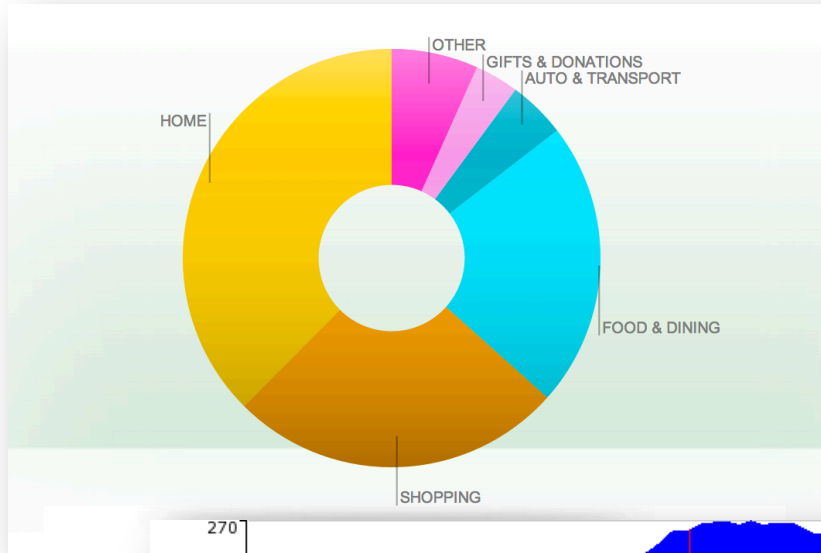
NONE

0 MG

No readings yet







NAME	CONFIDENCE ▲	OUTCOME
Alcohol Flush Reaction	★★★★	Does Not Flush
Bitter Taste Perception	★★★★	Can Taste
Earwax Type	★★★★	Wet
Eye Color	★★★★	Likely Brown
Hair Curl 🌀	★★★★	Slightly Curlier Hair on Average
Lactose Intolerance	★★★★	Likely Intolerant
Malaria Resistance (Duffy Antigen)	★★★★	Not Resistant
Male Pattern Baldness ♂	★★★★	Decreased Odds
Muscle Performance	★★★★	Likely Sprinter
Non-ABO Blood Groups	★★★★	See Report

YOUR RISK	AVG. RISK	COMPARED TO AVERAGE
17.1%	22.8%	0.75x 🟢
4.3%	7.2%	0.60x 🟢
2.6%	6.5%	0.40x 🟢
1.5%	2.0%	0.74x 🟢
1.2%	1.6%	0.73x 🟢
0.89%	2.38%	0.37x 🟢
0.74%	2.86%	0.26x 🟢
0.60%	0.75%	0.79x 🟢
0.20%	0.34%	0.59x 🟢

YOUR RISK	AVG. RISK	COMPARED TO AVERAGE
31.7%	25.7%	1.23x 🟠
22.4%	11.4%	1.98x 🟠
0.56%	0.36%	1.57x 🟡
0.42%	0.23%	1.80x 🟡
0.10%	0.08%	1.25x 🟡

Not Resistant
Not Resistant
Typical

ACTIVITIES



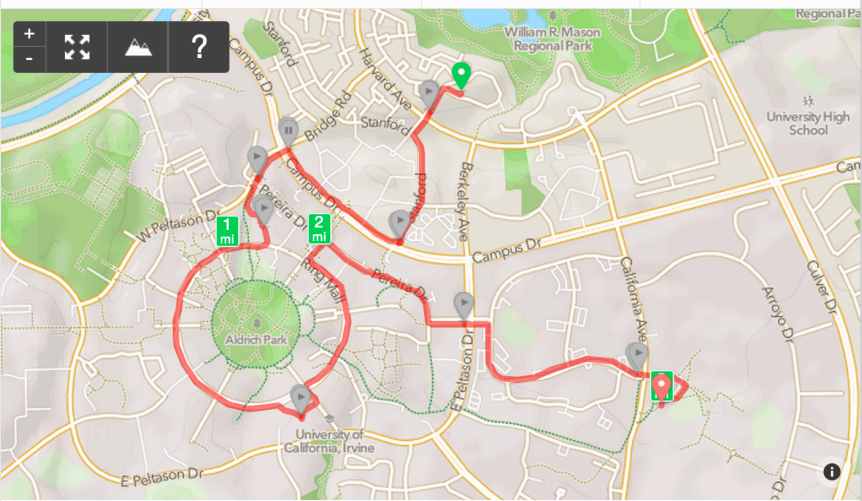
Thursday Run

MAY 08, 2014 - 10:45 PM



+ May '14	34
+ Apr '14	72
+ Mar '14	45
+ Feb '14	57
+ Jan '14	60
+ Dec '13	32
+ Nov '13	27
+ Oct '13	20

MI	DURATION	AVERAGE PACE	CALORIES BURNED
3.00	24:54	8:17	387



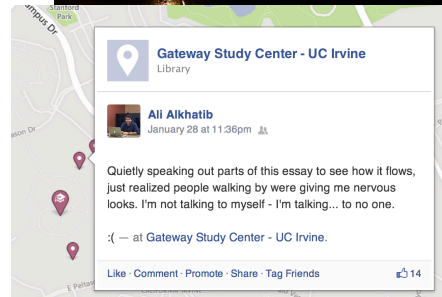
Findings

- Quasi-quantitative



- Obvious insights

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Male Pattern Baldness ♂	Decreased Odds
Muscle Performance	Likely Sprinter
Non-ABO Blood Groups	See Report
Norovirus Resistance	Not Resistant
Resistance to HIV/AIDS	Not Resistant
Smoking Behavior	Typical



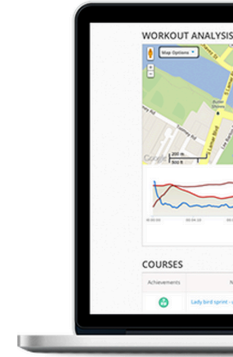
Findings (cont.)

- Self-awareness
- Analysis vs. capture
- “Aggregate later”
- “Free” data
- Hacking the self

mapmyrun

GoMVP

\$29.99 / year \$5.99 / month



FEATURES

Unlimited Mapped Routes
Unlimited Workouts

Conclusions

- Data rights
- Visualization
- Empiricism



Discussion & Further Research

- Quantified Other

- Big Data



(partial) Acknowledgements

- The Undergraduate Research Opportunities Program
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- Dr. Tom Boellstorff

Questions? Comments?

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