CHI 2014

Understanding Quantified-Selfers' Practices in Collecting and Exploring Personal Data

Top Paid iPhone Apps

Paid | Free | Top Grossing

Countless Self-monitoring Apps

1. Run with Map My Run+ GPS... — Health & Fitness — $0.99
2. 7 Minute Workout... — Health & Fitness
3. CARROT Fit - Talking Weight... — Health & Fitness
4. Running for Weight Loss P...
5. Sleep Cycle alarm clock — Health & Fitness
6. Smart Alarm Clock: sleep...
7. Map My Ride+ - GPS Cycling,...
8. Fitness for women: workou...
9. 7 Minute Workout - Quic... — $0.99
10. Map My Fitness+ -... — Health & Fitness — $1.99
11. Couch-... — Health & Fitn

13. Fitness Buddy : 1700+ Exercise... — Health & Fitness — $1.99
14. Tone It Up — Health & Fitness — $0.99
15. 5K Runner: 0 to 5K run traini... — Health & Fitness — $2.99
16. Yoga.com Studio: 300 Pos... — Health & Fitness — $4.99
17. Moves — Health & Fitness
18. Period Tracker Deluxe — Health & Fitness — $2.99
19. Yoga Studio — Health & Fitness — $1.99
20. White Noise — Health & Fitness — $1.99
21. Ultra Fitness — Health & Fitness — $0.99
22. Sleep Pillow Sounds: white... — Health & Fitness — $1.99
23. All-in Fi by Sport.co... — Health & Fitn — $2.99

25. Instant Heart Rate - Heart Rat... — Health & Fitness — $1.99
26. Paleo Central — Health & Fitness — $0.99
27. Calorie Counter PRO b... — Health & Fitness — $3.99
28. The Wonder Weeks — Health & Fitness — $2.99
29. Log For P90X3 Workout — Health & Fitness — $0.99
30. Simply Being - Guided... — Health & Fitness — $0.99
31. myWOD — All-in-One WOD Lo... — Health & Fitness — $1.99
32. P90X — Health & Fitness — $2.99
33. Runtastic PRO GPS Running,... — Health & Fitness — $4.99
34. Points Calculator for... — Health & Fitness — $2.99
35. 30 Day Challenges... — Health & Fitn — $2.99

37. The Fast Metabolism Die... — Health & Fitness — $2.99
38. 10K Runner: 0 to 5K to 10K ru... — Health & Fitness — $3.99
39. Sleep Time+ Alarm Clock an... — Health & Fitness — $1.99
40. Full Term - Labor... — Health & Fitness — $0.99
41. Tabata Pro - Tabata Timer — Health & Fitness — $2.99
42. Diet & Food Tracker -... — Health & Fitness — $3.99
43. Seconds Pro - Interval Timer — Health & Fitness — $1.99
44. Sleep Machine — Health & Fitness — $4.99
45. Relax Melodies... — Health & Fitness
46. 7-Minute Workout (High... — Health & Fitness — $1.99
47. Ultimate Value Diary t... — Health & Fitn — $3.99

49. buddhify 2 — Health & Fitness — $1.99
50. Instant Fitness : 600+... — Health & Fitness — $0.99
51. Sworkit Pro — Health & Fitness — $0.99
52. Pocket Yoga — Health & Fitness — $2.99
53. BabyBump Pregnancy Pro... — Health & Fitness
54. Situps 0 to 200: Sit Ups... — Health & Fitness
55. LIVESTRONG.C... — Health & Fitness
56. Insight Timer Deluxe -... — Health & Fitness
57. Daily Workouts — Health & Fitness
58. Boot Camp Challenge — Health & Fitness
59. Pts. Plu... — Health & Fitn — $1.99

Activity Sensing

Medical Sensing

Blood glucose meter

Thermometer

Blood pressure monitor

Heart Rate monitor

Apple's Healthbook

Few good self-monitoring tools exist

Extreme self-trackers

Activity

Sleep

Heart rate

Location

Food

Mood

Home energy use

Snoring

Weight

Cognitive performance
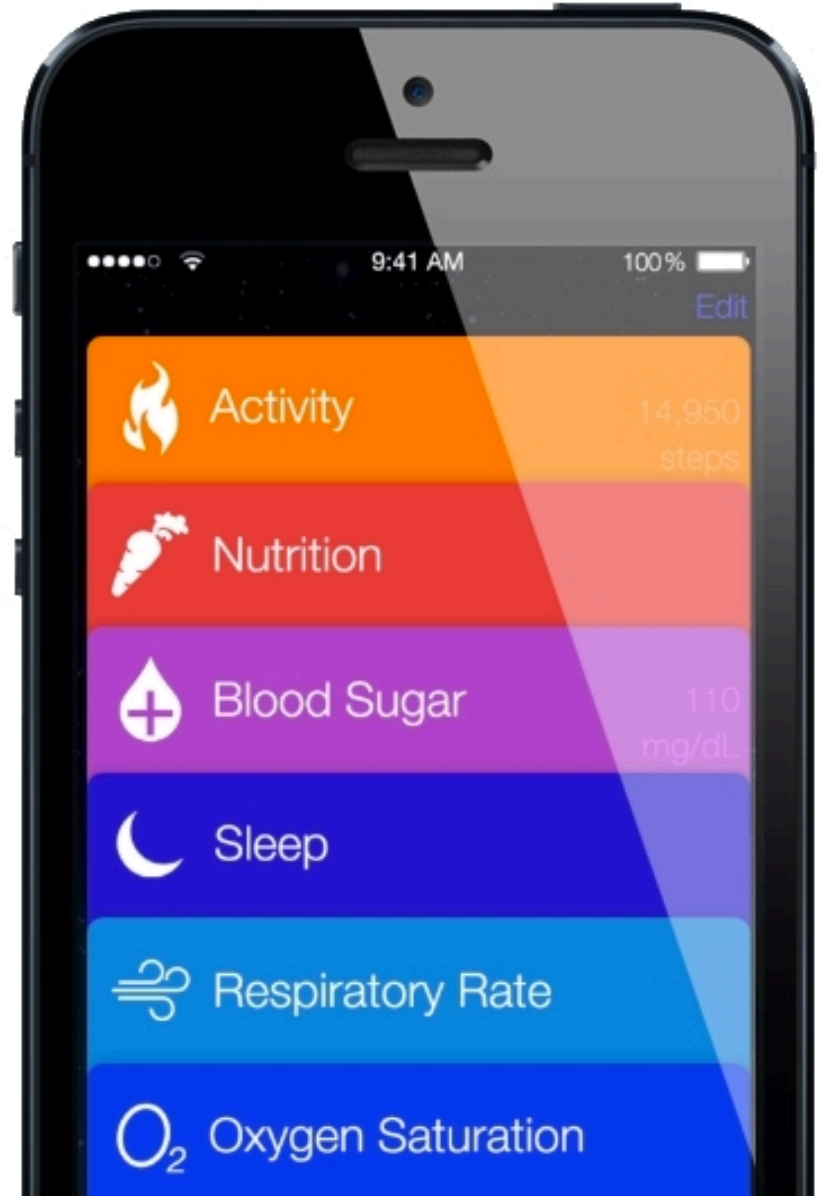
QS Quantified Self
self knowledge through numbers

Mark Moschel on Tracking and Dunking

Posted on January 30, 2014 by Ernesto Ramirez

Since he was a child Mark Moschel has been a basketball fan. Growing up in Chicago he became a fan of Michael Jordan. What really captured his attention was the act of dunking a basketball. As an adult, and still a basketball fan, Mark decided he wanted to set a new goal for himself – learning to dunk a basketball. In this talk, presented at our 2013 Global Conference, Mark describes how he incorporated self-tracking in his efforts.

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Posted in Videos | Tagged basketball, dunking, qstop, strength | Leave a comment

Quantified Self
Europe Conference

May 10-11, 2014 • Amsterdam

Make a Sparktweet

QS Meetup Groups

CITY NOT LISTED?   CANADA

Start Your Own   **Toronto**
QS Group!   **Vancouver**

USA - WEST   **Montreal**

Bay Area   **Ottawa**

QSXX - SF   **London**

Silicon Valley   **(Ontario)**

San Diego   EUROPE

Find
a Meetup Group

Start
a Meetup Group

Sign up

Log in

English

Quantified Self Meetup Groups

Powered by Leaflet

Groups	Members	Interested	Cities	Countries
165	30,967	8,392	118	38

Related topics: Self Tracking · Personal Informatics · The Quantified Self · New Technology · Innovation · Mobile Technology · Big Data · Entrepreneurship · Startup Businesses

Find a Quantified Self Meetup Group near you

Country

USA

ZIP

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What I Learned

- What a good nights sleep looks like and what affects that for me
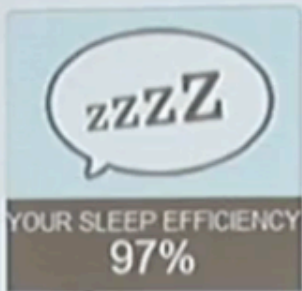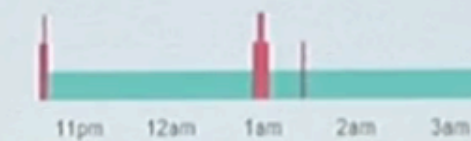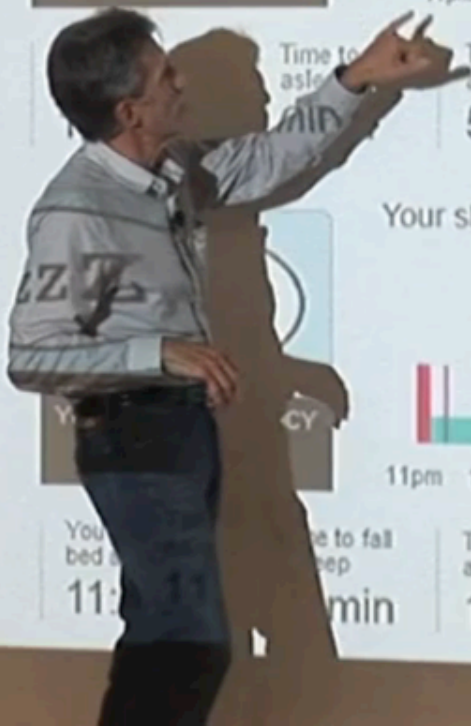
1. What I did

2. How I did it

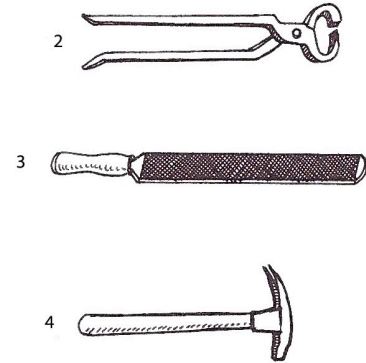3. What I learned

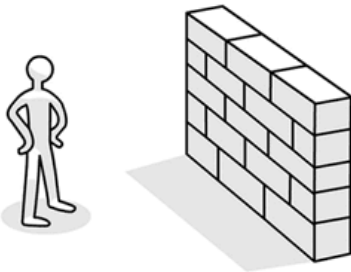# What do we want to know about QS?

Profile

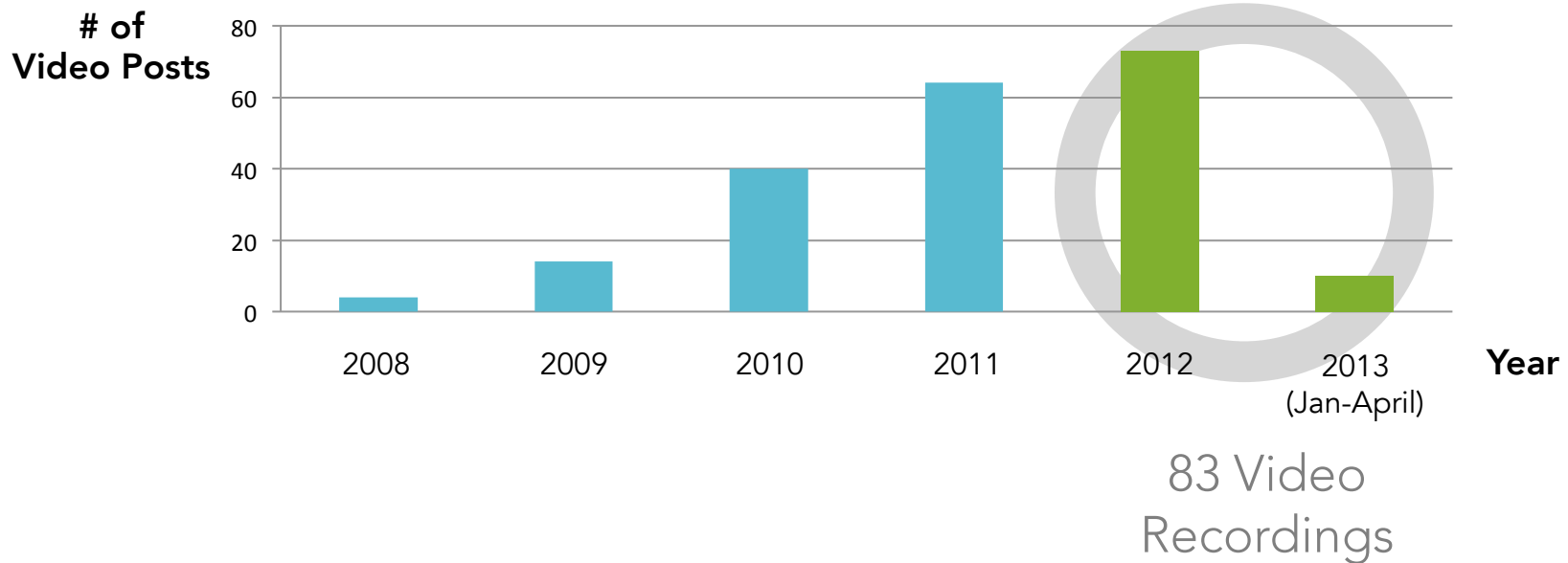Motivation

Tools

Challenges
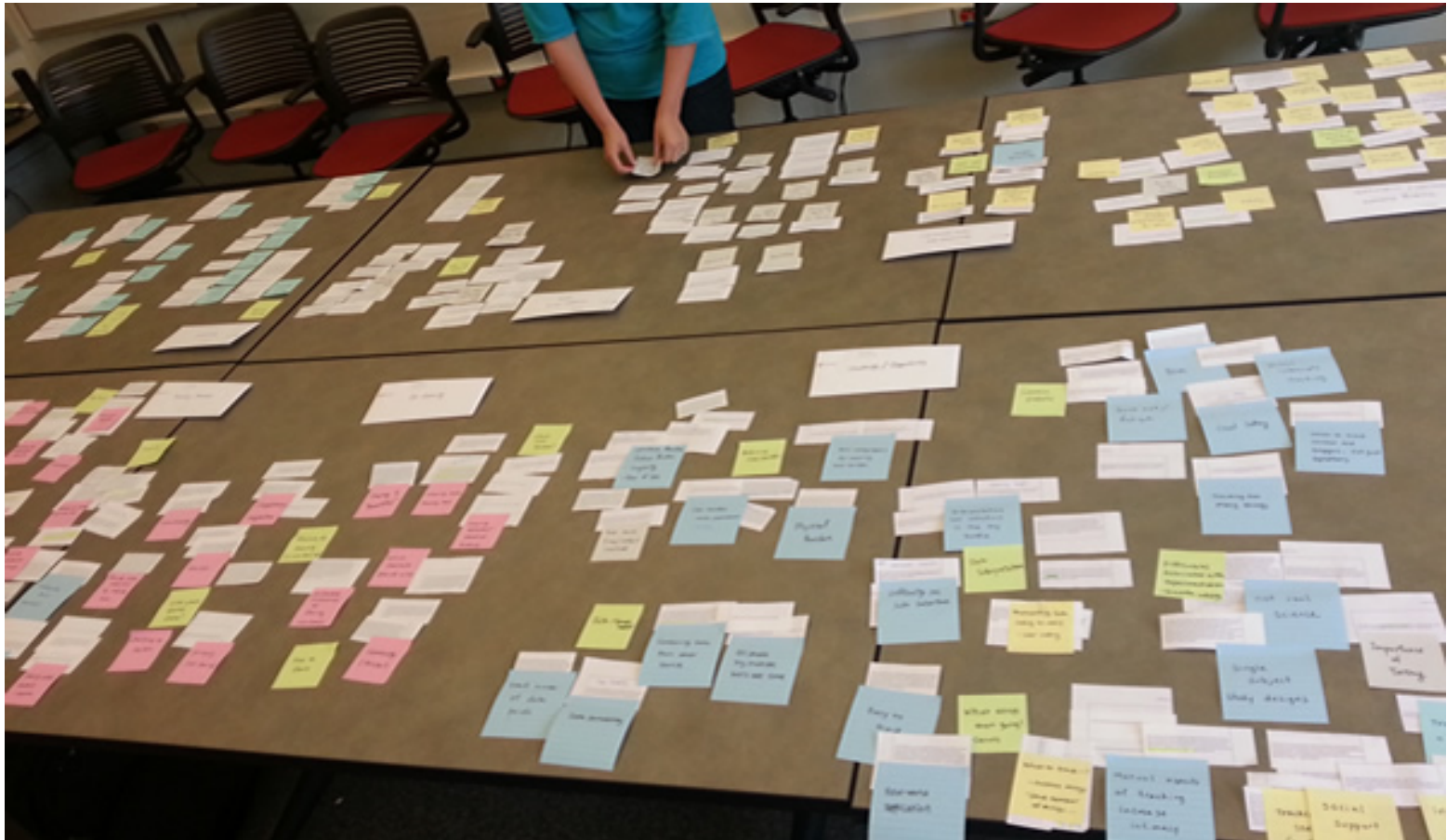

Workarounds

Visualizations

Dataset

Number of Video Posts in the Quantified Self Blog per year

52 videos met the inclusion criteria
Average length: 15 minutes 53 seconds

Analysis

Affinity analysis

Analysis

	C	E	F	G	H	I	J	K	L
1	City	Gender	Working in a tech company?	Background	Data type	Technology for collecting data	Health Condition	Duration	User-generated Commercial? B
2	San Francisco	Male	Microsoft	Data analytics	Activity, Food, Sleep, Weight, Body fat, mood	Fitbit, Wireless weight scale	Obesity	15 weeks	Commercial
3	San Francisco	Male	startup	Data analytics, financial modeling, tech startup	Glucose	Continuous glucose monitor	Diabetes	2 years	Commercial
4	London	Male	no	electronics engineer	Exercise, Food, Supplements, Medicine, biomedical data, body fat, weight, blood pressure	heart rate monitor, pen and paper, Excel	cancer	6 years	Commercial
5	Seattle	Male	startup	interface designer, VP of product, web development	Weight, Food, Sleep, Productivity	scale, Fitbit, RescueTime (productivity measuring tool)		2 years	Commercial
6	London	Male	startup	software engineer, network engineer	rowing strokes, distance rowed, time rowed, calories	arduino, speadsheet	overweight	5 months	
7	San Francisco	Male	startup	robotics, software, product development	proximity to cars, location	smartphone, sonar		1 year	user-generated
8	Beirut	Female		mechanical engineer	heart rate	custom heart rate monitor			user-generated
9	Toronto	Male	Rogers	programmer, performance manager, big data	food, fitness, cognitive performance, anxiety, media consumption, sleep, location, finance, biomedical data, reading, glucose			20 years	

Created a profile for each speaker

Analysis
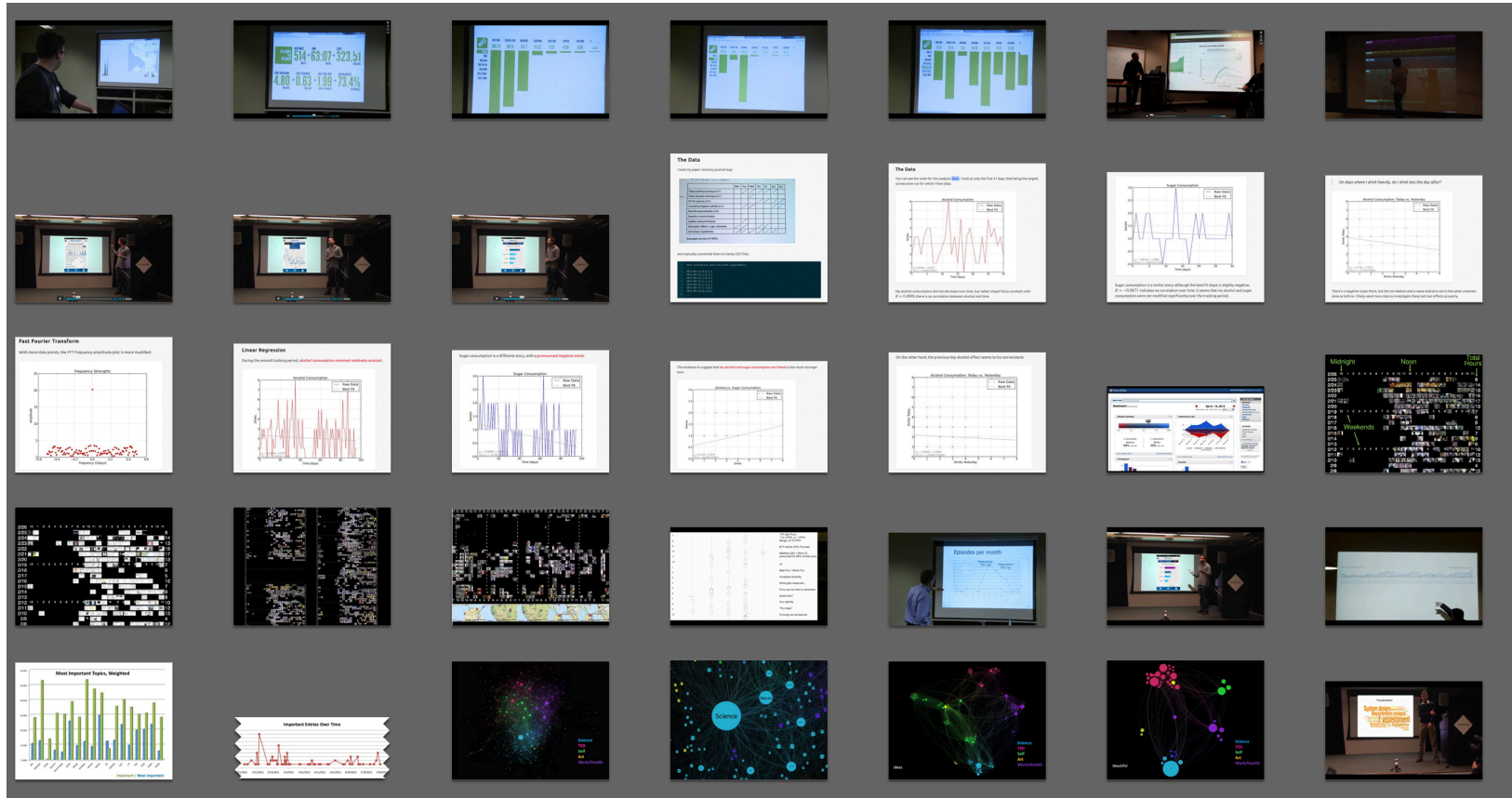
Categorize visualizations by type

Results

1. What did you do?

Profiles
- Items Tracked
- Motivations to Practice Self-Tracking

2. How did you do it?

- Data Collection & Exploration Tools
- Visualization Types
- Building Custom Tools
Self-Experimentation

3. What did you learn?

Gained Insights
Tracking Outcomes

- Challenges and Workarounds[1,2,3]

Items Tracked

Number of People Who Tracked A Certain Item

Top 5 items: **activity, food, weight, sleep, and mood**

# of people

What people track

Other items: cognitive performance, blood glucose, location, heart rate, knowledge, stress, body fat, productivity, snoring, movies, posture, medicine, skin condition, home energy usage, clothes, and public transit usage
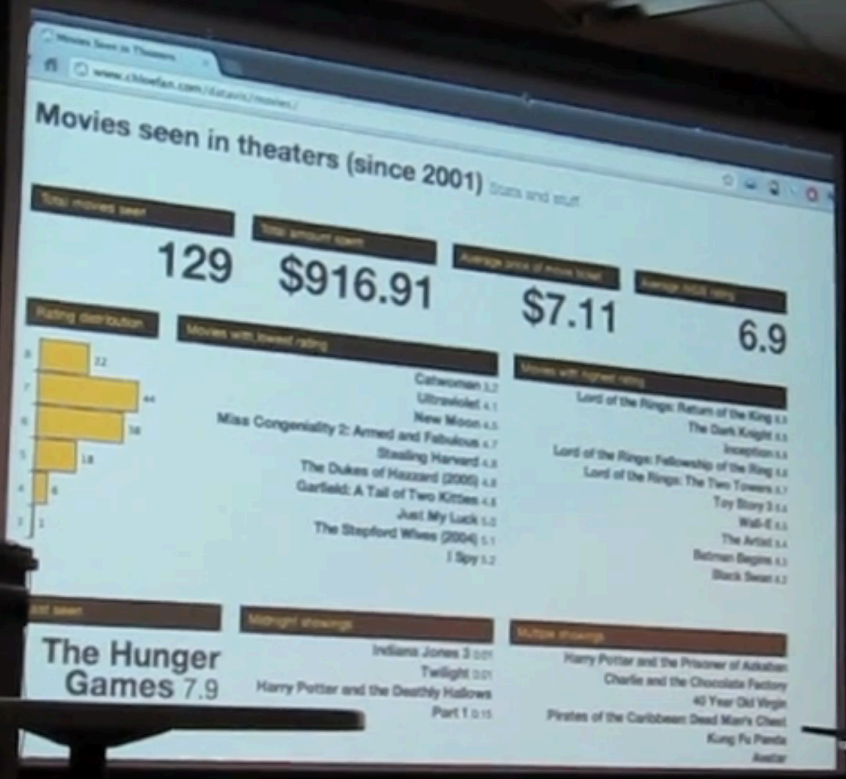
"Movies seen in theaters (since 2001)"
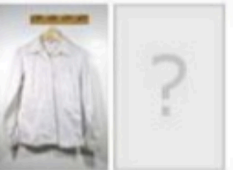
Titles of the talk:

A Diabetic Experience with Self-Quantification

Analyzing My Cancer Data

Going Vegan in December

Improving Skin Health…

Cognitive Performance

15 Weeks of Self-Tracking

Diabetes, Exercise, and QS

Experience Sampling of My Stress

Hacking Your Subconscious Mind

…

Motivations to Self-Tracking

| Motivations	Sub-categories
To improve health	To cure or manage a condition
	To achieve a goal
	To find triggers
	To answer a specific question
	To identify relationships
	To execute a treatment plan
	To make better health decisions
	To find balance
To improve other aspects of life	To maximize work performance
	To be mindful
To find new life experiences	To satisfy curiosity and have fun
	To explore new things
	To learn something interesting

Data Collection and Exploration Tools

| Data Collection Tool	% (#)
Commercial hardware	56% (29)
Spreadsheet	40% (21)
Custom software	21% (11)
Pen and paper	21% (11)
Commercial software	19% (10)
Commercial website	10% (5)
Camera	6% (3)
Open-source platform	6% (3)
Custom hardware	4% (2)
Other	10% (5)

Data Exploration Tool	% (#)
Spreadsheet	44% (23)
Custom software	35% (18)
Commercial website	27% (14)
Commercial software	12% (6)
Open-source platform	8% (4)
Statistical software	4% (2)
Pen and paper	2% (1)

Building custom tools
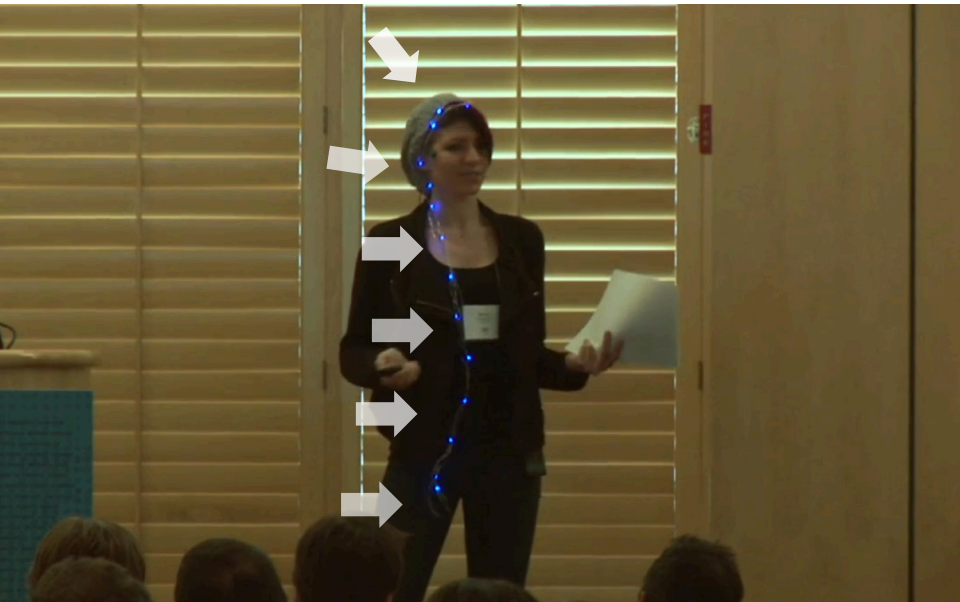
Captures smile via wearable sensing
Provides real-time feedback
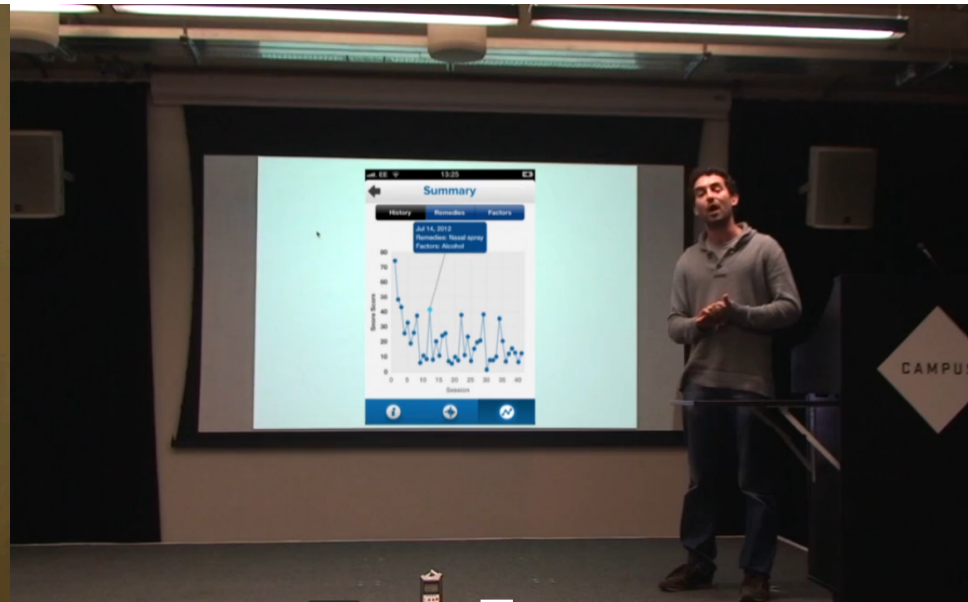
Captures snoring via mobile app
Provides data visualization

Visualization Types

Tag cloud showing the usage frequency of 21 unique visualization types

Custom visualizations

Why build custom tools?

Desirable features are not supported

Collect and reflect on the data using a **single tool**

Perform **self-experimentation**

Challenges
& Workarounds

Tracking too many things

"I can honestly say that I've made the ==classic newbie self-tracking mistake== which is that I track everything. I didn't know exactly what to track, so I tracked caffeine, dairy, wheat, sugar, nuts, fruit, vegetables, meat, chicken, fish, alcohol supplements…"

Ways to lower the manual capture burden:

- lower the **data granularity** (e.g., binary rather than numeric)
- make **manual capture** very easy (e.g., single-tap)
- make tracking a **rewarding experience**

Not tracking triggers & context

"I was trying to track all these symptoms and I was completely ignoring the cause…"

Not having enough clues on what to track
Missing vital information on how to improve outcome measure

Lacking scientific rigor

Conducted self-experimentations without having a control condition or controlling for confounding factors

Implications for self-tracking tools

Help identify what to track and provide early feedback

Help people conduct more rigorous self-experimentation

Maximize the benefits of manual tracking

Takeaways

YOU ARE JUST A NUMBER

Can you make yourself healthier and happier by logging every snore, step and mood swing? As a Californian trend for obsessional data-tracking makes its way over here, **Tim Chester** covers his body in gadgets to find out if self-knowledge is power. Photograph by Paul Stuart

Today I have climbed the equivalent of a tall giraffe. Coffee is my most frequent food. On average, I walk 11,726 steps a day, burning 3,089 calories, over 2.4 hours of activity. I sleep for 6 hours and 9 minutes a night. This week, my sleep efficiency is 72% and my food is 77% healthy. My BMI of 23.5 is 14 percentage points below the median for men my age, and my average daily Met score is 1.71, although I have no idea what a Met score is.

I am, it seems, nothing more than a bundle of numbers and milestones, spurred on by LEDs and chided by pop-up messages. A wireless accessory for the iPhone; perhaps its most sophisticated yet.

My arms are covered in bands, my pockets augmented with accelerometers, my eyes numb from all the charts, my heart pumping to the beat of a heart-rate monitor and forcing its ventricles to keep up with the national average. My head is about to implode from all the positive affirmation and gentle nudging, but it's OK because my memories are being saved to my hard drive and my mood swings are earning me *hugs* from strangers.

I am producing, analysing and socially sharing personal data. I am becoming fitter, happier, and more productive. I am staying motivated by earning badges. I have become a Quantified Self (QS).

The QS movement that I've temporarily joined began, as these things tend to do, in San Francisco's Bay Area in 2007. Two Wired magazine editors, Gary Wolf and Kevin ⇛→

24 Hours of nonstop video

369 MINS Sleep per night

73 bpm heart rate

3,324 Nike FuelBand score

582 photos logged

11,726 steps walked

3,089 Calories burnt

Support self-reflection

Thank you!