# Why data-informed beats data-driven.

Greg Reda PyData Seattle July 26, 2015

## Hi. I'm Greg Reda.

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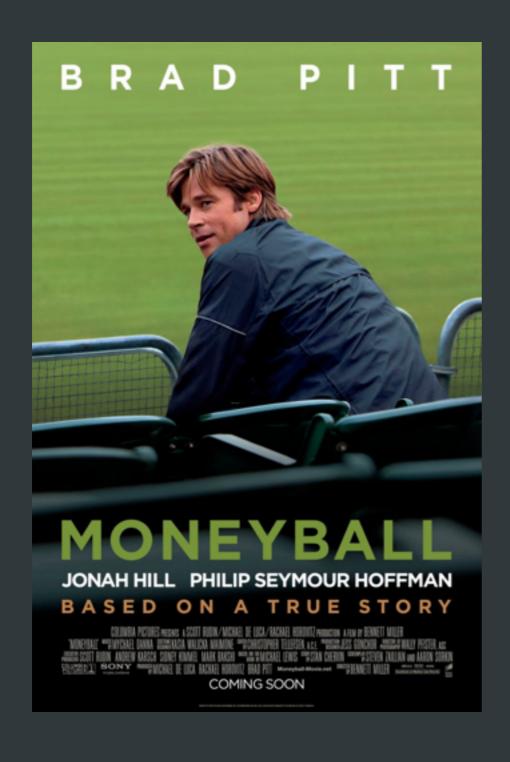
#### Who is data-driven?

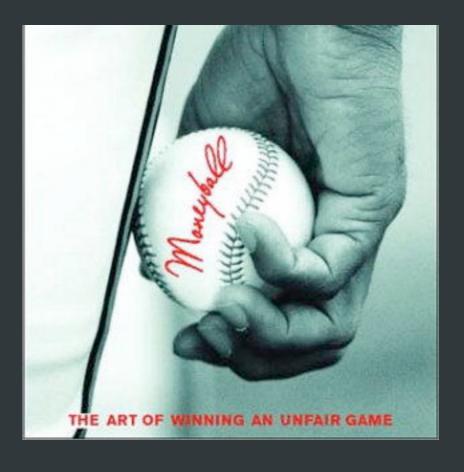
Literally.

## What's going on?

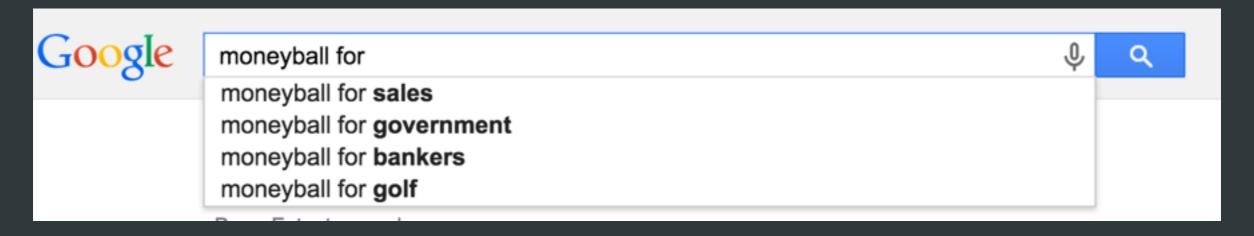
Why is everyone "data-driven?"

## Moneyball



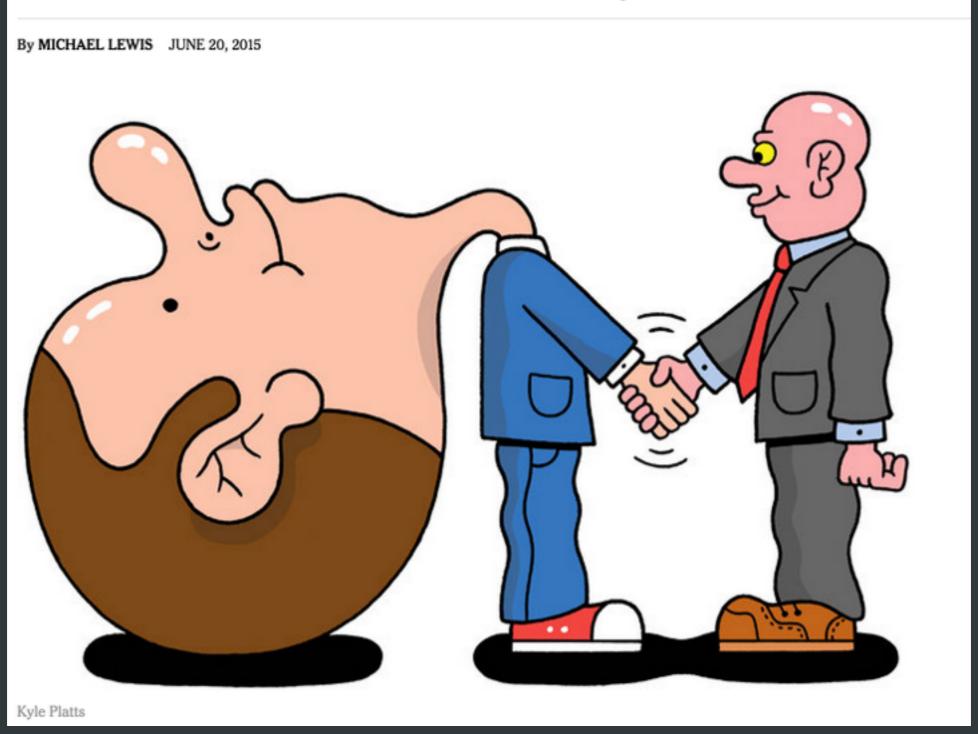


## "Moneyball for \_



#### SundayReview | LOOSE ENDS

#### Harvard Admissions Needs 'Moneyball for Life'

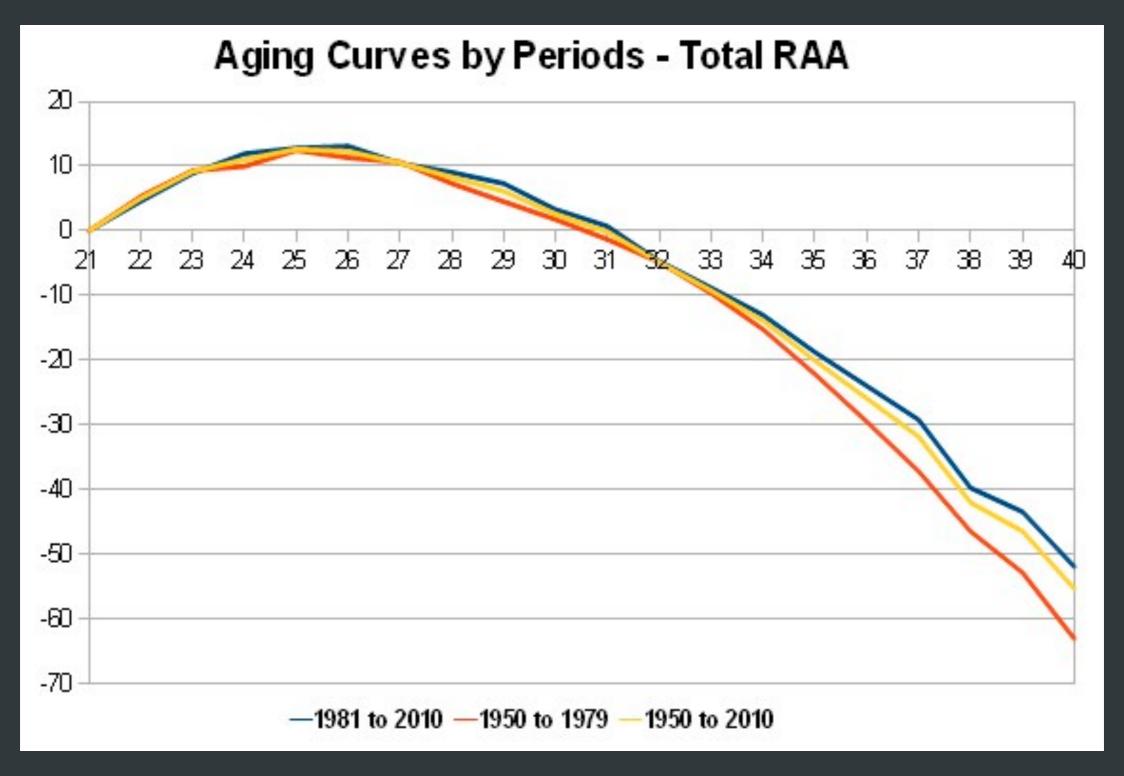


http://www.nytimes.com/2015/06/21/opinion/sunday/harvard-admissions-needsmoneyball-for-life.html

#### What they think it was about

Statheads vs. Scouts

## Aging Curves



### Mike Trout



## What it was really about

**Statheads + Scouts** 

#### Quants vs. Creatives

**Sound familiar?** 

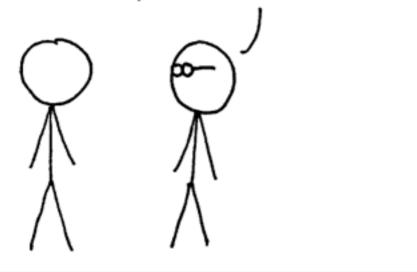
## "Design is the process we undertake to solve a problem."

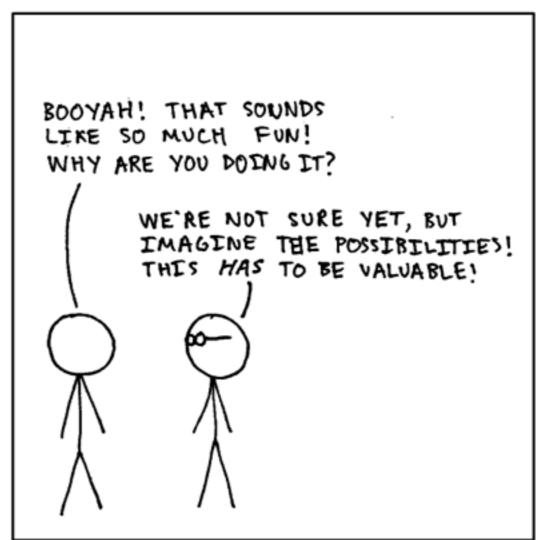
- Mike Monteiro: Why You Need Design

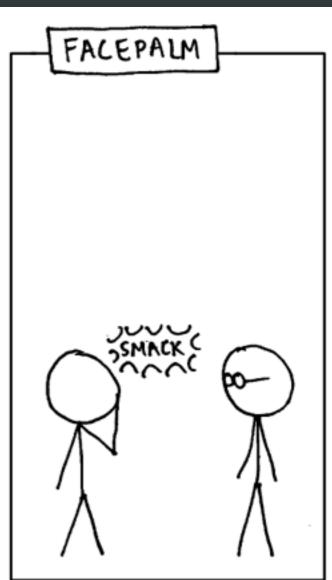
Sounds familiar.

#### **Mhh**

WE HAVE THIS AWESOME DATA ON (INSERT MOUTH-WATERING DESCRIPTION OF DATA)! WE CLEANED IT UP AND WE'RE RUNNING (SOPHISTICATED ANALYSIS) ON IT. WE SEE (STORY ABOUT FASCINATING PATTERNS). ISN'T THAT COOL?!

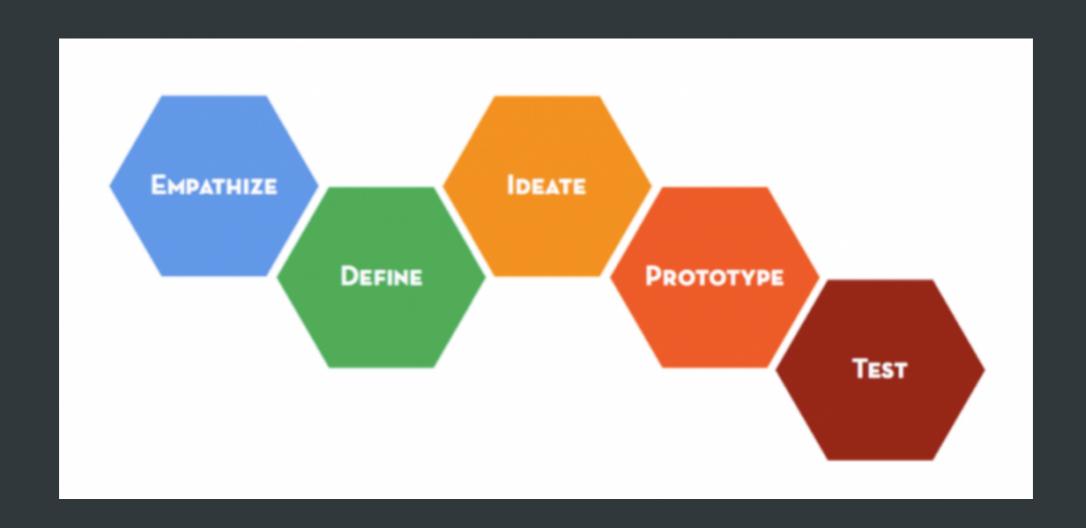






# Data science is about answering questions & solving problems

#### Design thinking & data science



#### The Netflix Prize

"Improve our recommendations algorithm by 10%."

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"Improve our recommendations algorithm by 10%."

"We can't use it."

#### Data Science vs. User Research

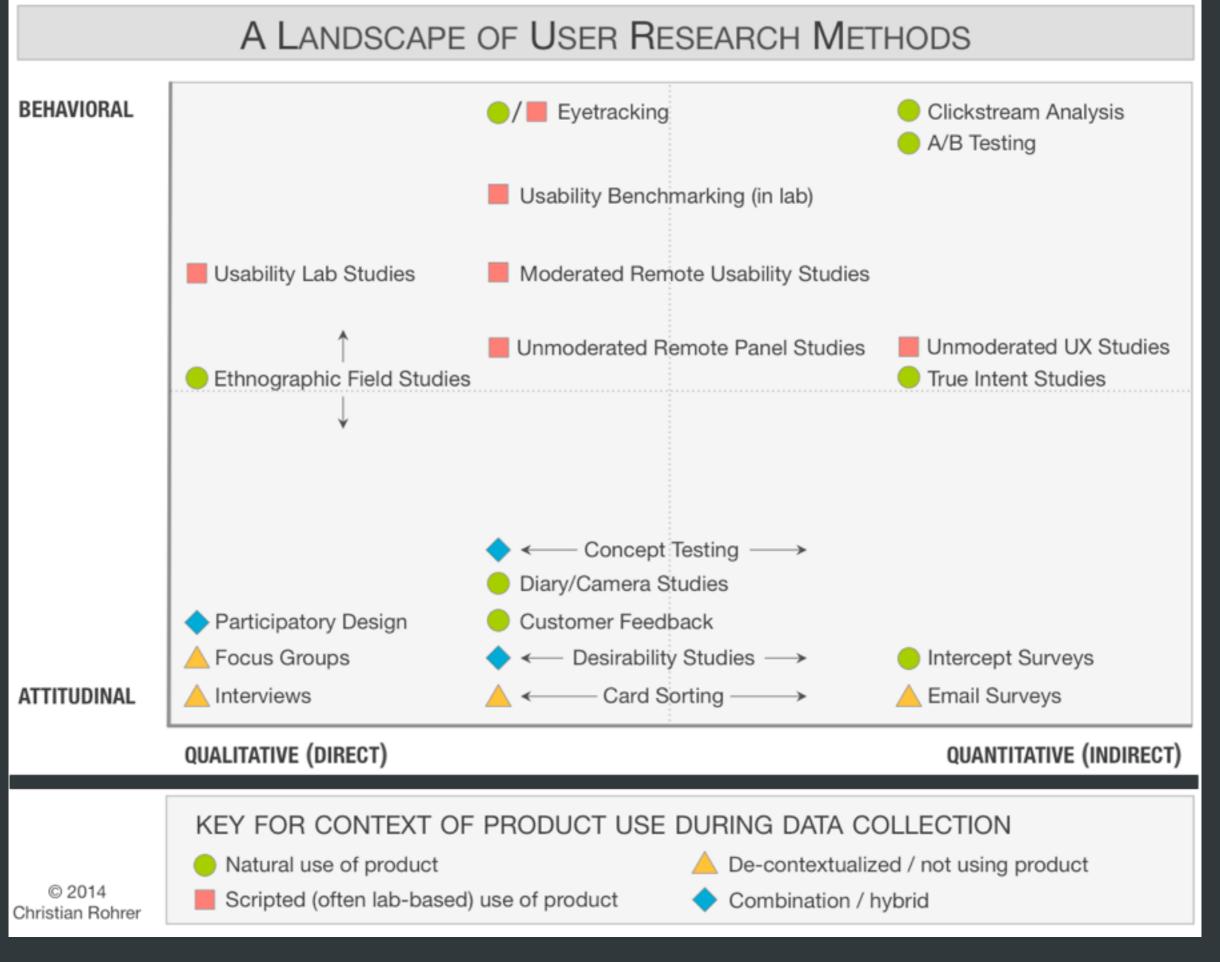
#### Data Science vs. User Research

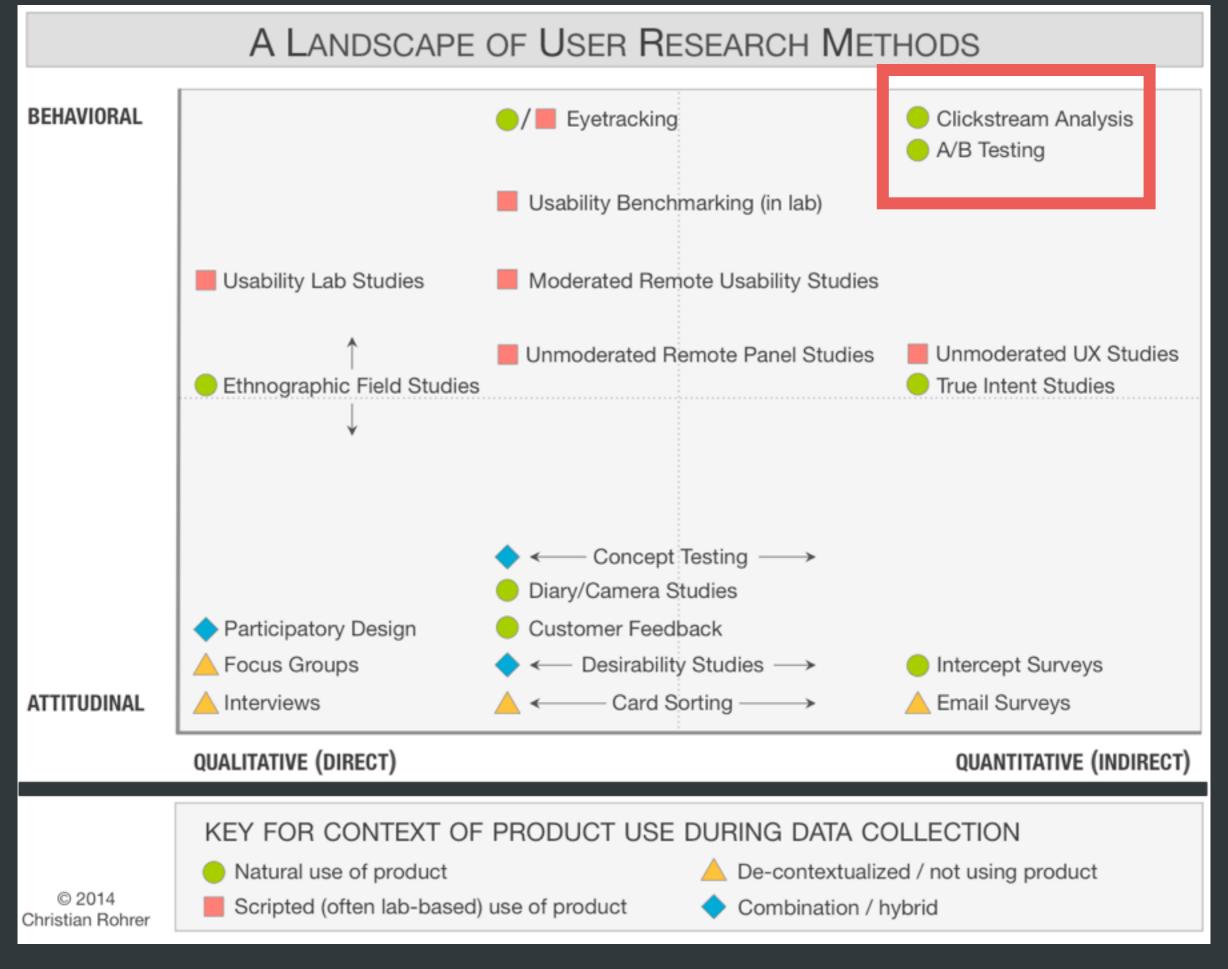
It's a trap!



## Reality

Do both.





#### User Research Studies

Narrow(ish) but deep.

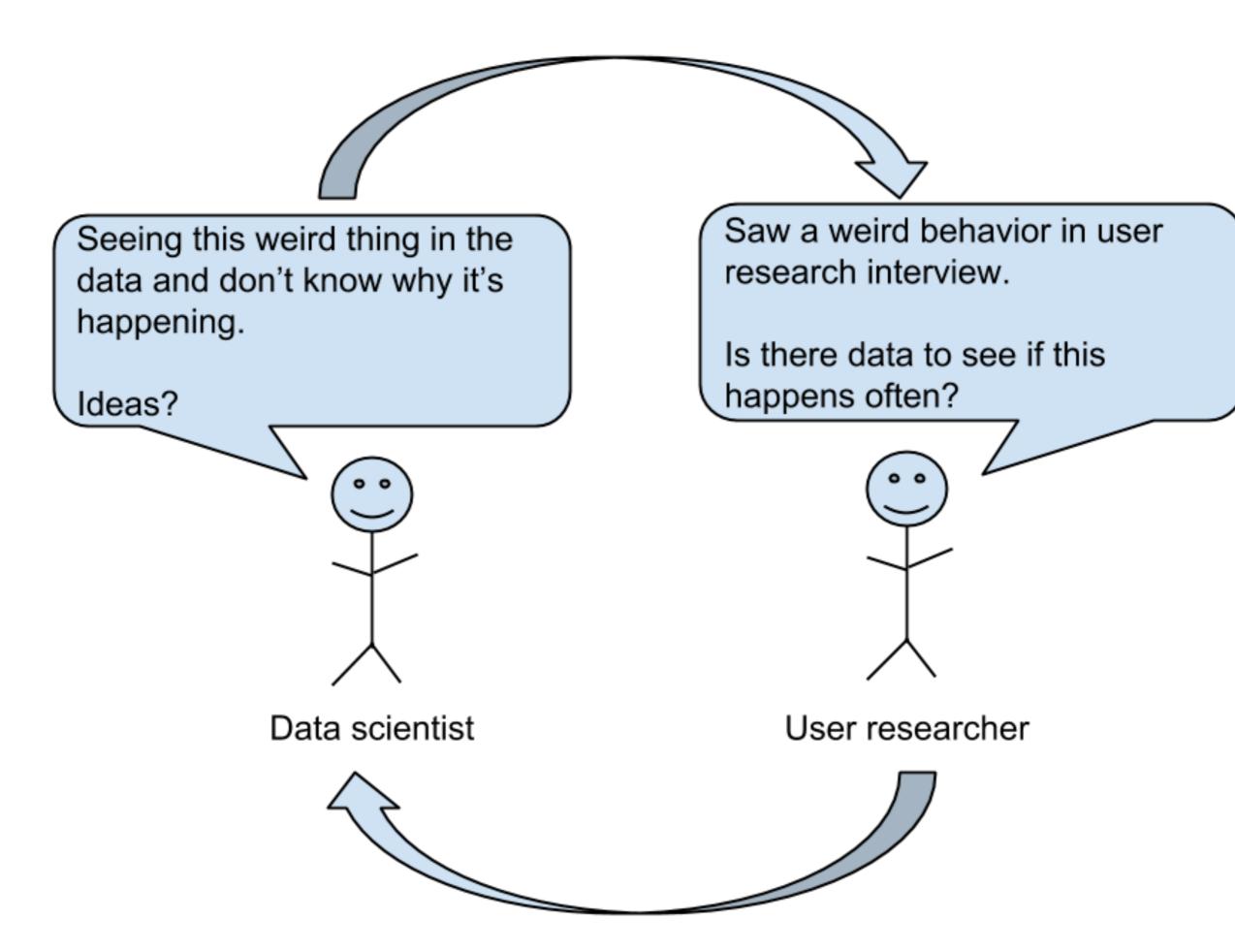
## Data Science & Analysis

**"Why?"** 

Causality is hard.

Shallow(ish) and wide.

## The Feedback Loop



## They're complements

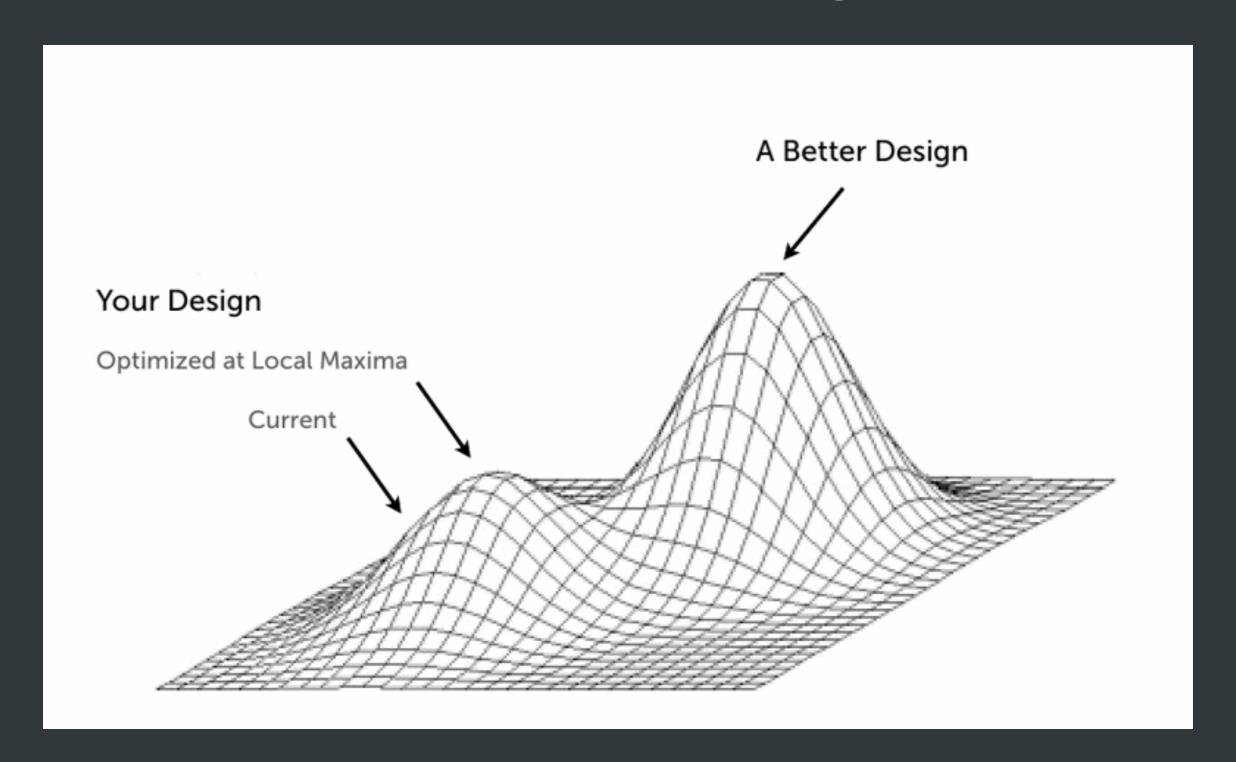
Where data science falls short, user research excels.

And vice versa.

## A/B Testing

The dreaded local optima.

## Hill climbing



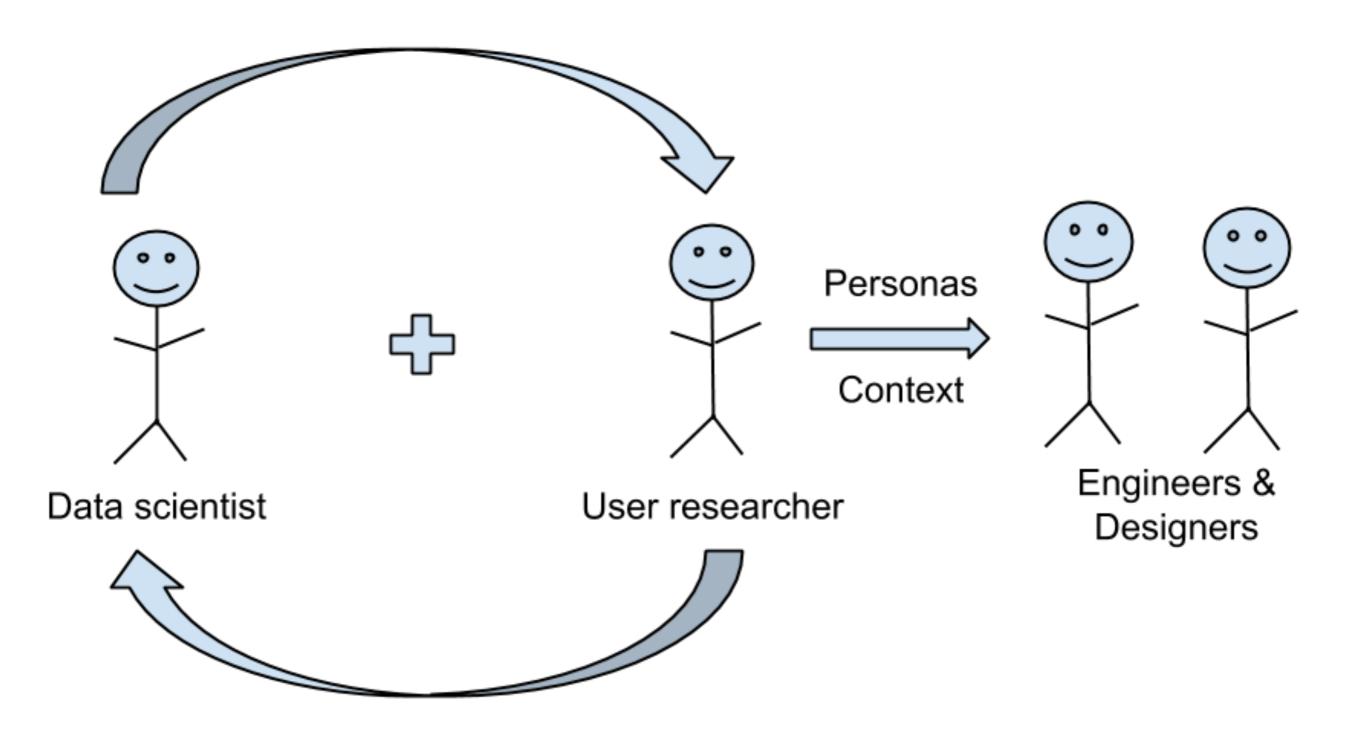
#### Creatives: our randomness

Jump to new points on the landscape.

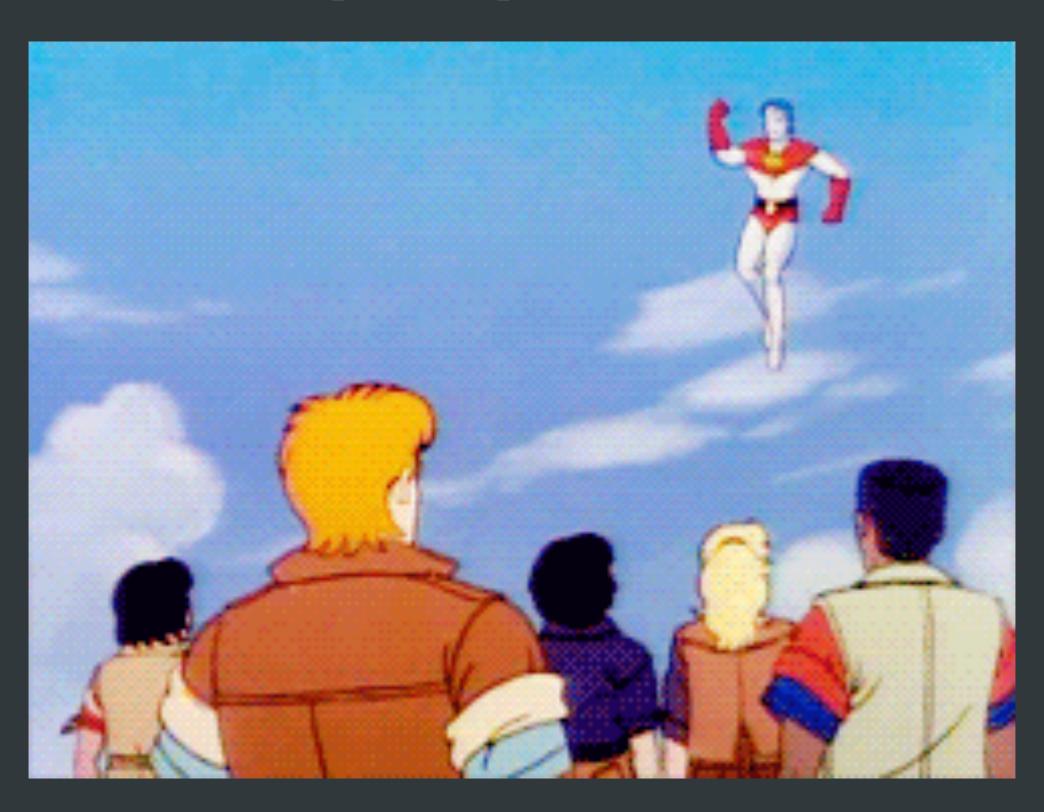
## Team work makes the dream work.

Our analysis can help pinpoint UX problems.

Our work informs design, UX, and engineering.



## "Superpowers"



## Make experiences

Not metrics.

## Data is powerful

But not something to be "driven" by.

# "The key to making a good forecast, ... is not in limiting yourself to quantitative information. Rather, it's having a good process for weighing the information appropriately."

- Nate Silver: The Signal And The Noise

#### Good Reads

How Not to Drown in Numbers [NYT]

Creative Thinking And Data Science [Datascope]

Why? Why? Why? [Datascope]

How to Solve a Problem In 3 Steps ... [Entrepreneur]

Recommendation Engines Aren't For Maximising Metrics, They

Are For Designing Experiences [Mike Dewar]

The Signal and the Noise [Nate Silver]

## Thank you.

Questions?