# Building the Future of Open Mapping

Running a Business Like You Would Run an Open Source Project



Justin Miller • Mapbox • @incanus77

### Introduction

- I'm the mobile lead at Mapbox
- I'm mostly a software developer
- Been involved in open source since the late 90s
  - Sysadmin → web dev → mobile dev → entrepreneur → Mapbox
- These are just my personal views & experiences

## Mapbox

- We make tools for custom maps for apps & websites
- Software: open source (BSD)
- Stack: for-pay cloud services



## Mapbox

- Privately held
- Bootstrapped for 3 years to ~25 employees
- Took \$10M in VC in October '13
- Now >50 employees



### Business Model

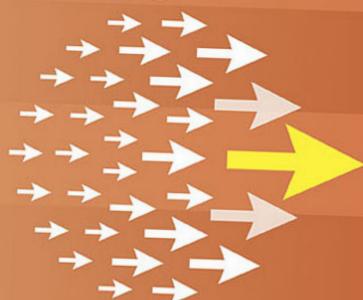
- Cloud-based services like:
  - Map hosting
  - Geocoding
  - Directions
- Monthly plan tiers and enterprise contracts

## Open Source

- Our GitHub:
  - 264 public repositories
  - ...but also 227 private repositories
  - Everything we write, if generally reusable, is open sourced

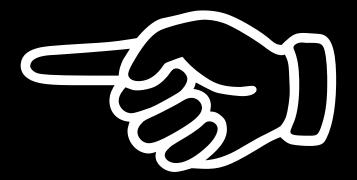
## producing Open Source software

Karl Fogel



HOW TO RUN A SUCCESSFUL FREE SOFTWARE PROJECT

O'REILLY\*



http://producingoss.com

## Overview

- Things we do and are working on
- How we work
  - With lots of examples



#### FINANCIAL TIMES

## Pinterest

## GitHub





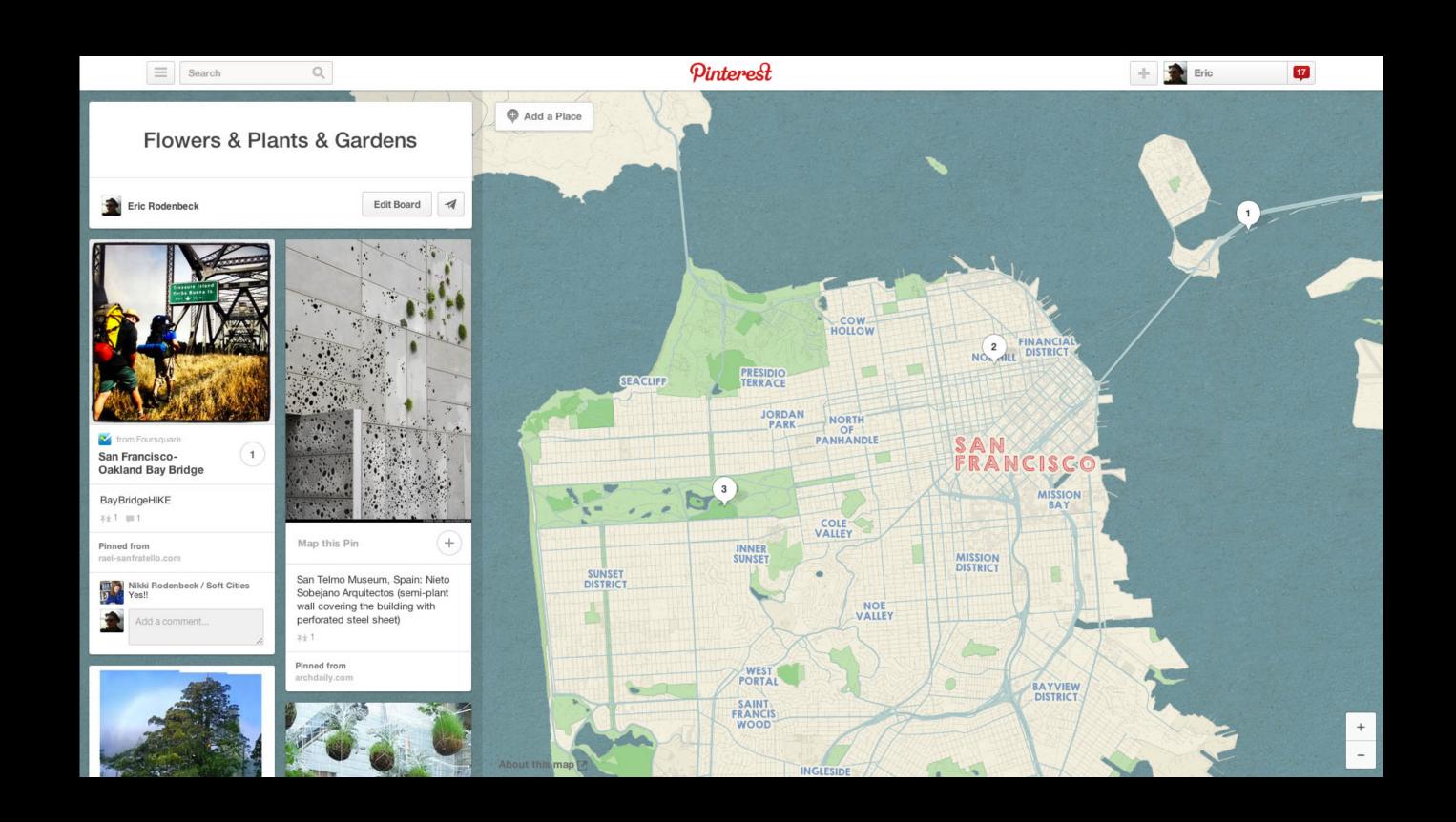


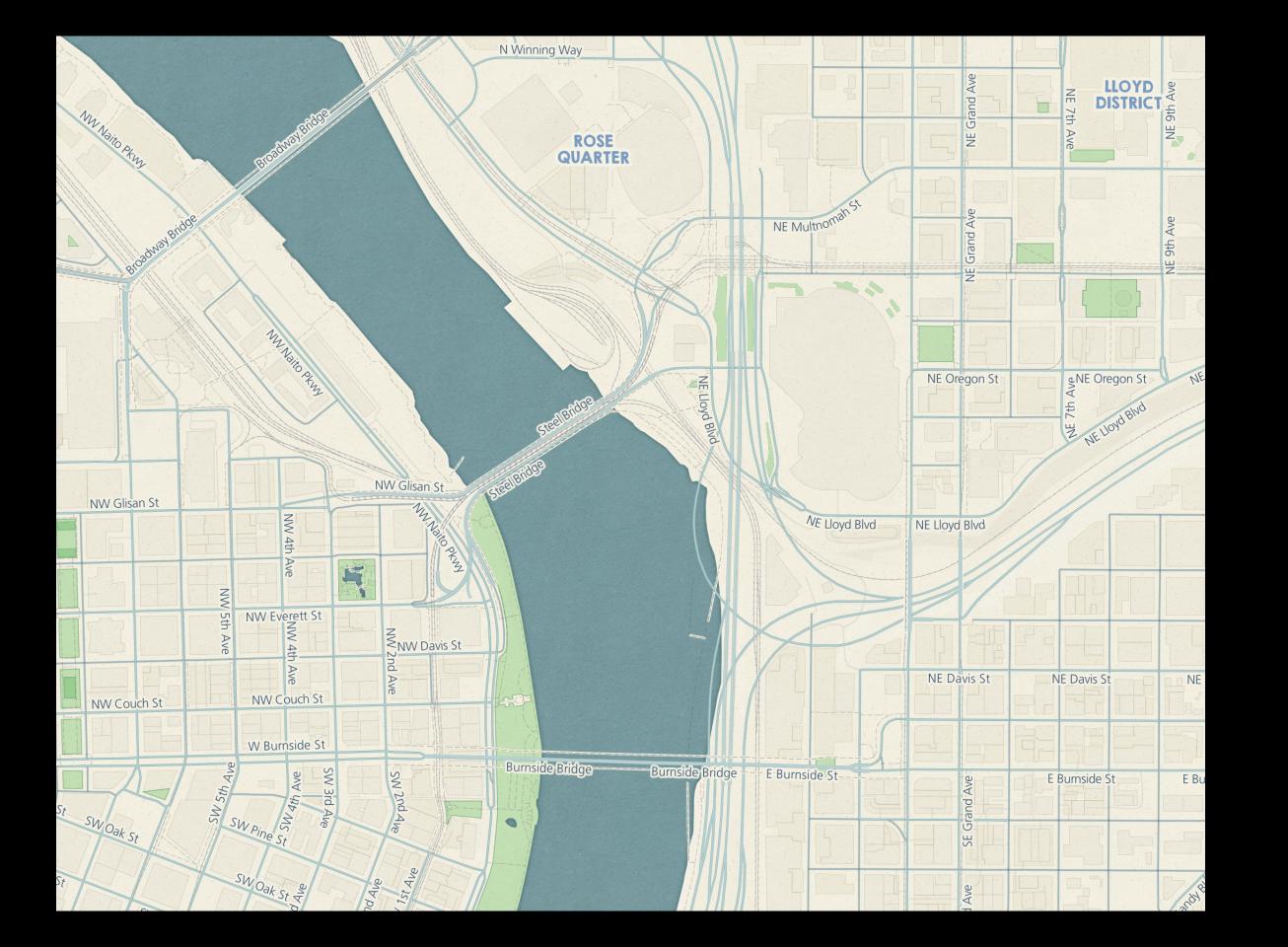






The Washington Post







SEARCH

MONEY

TRAVEL

TECH

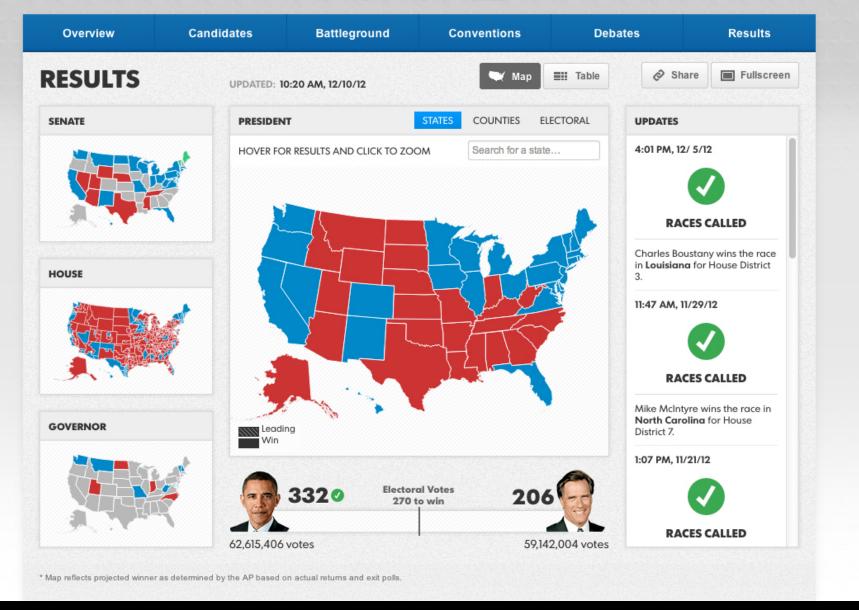


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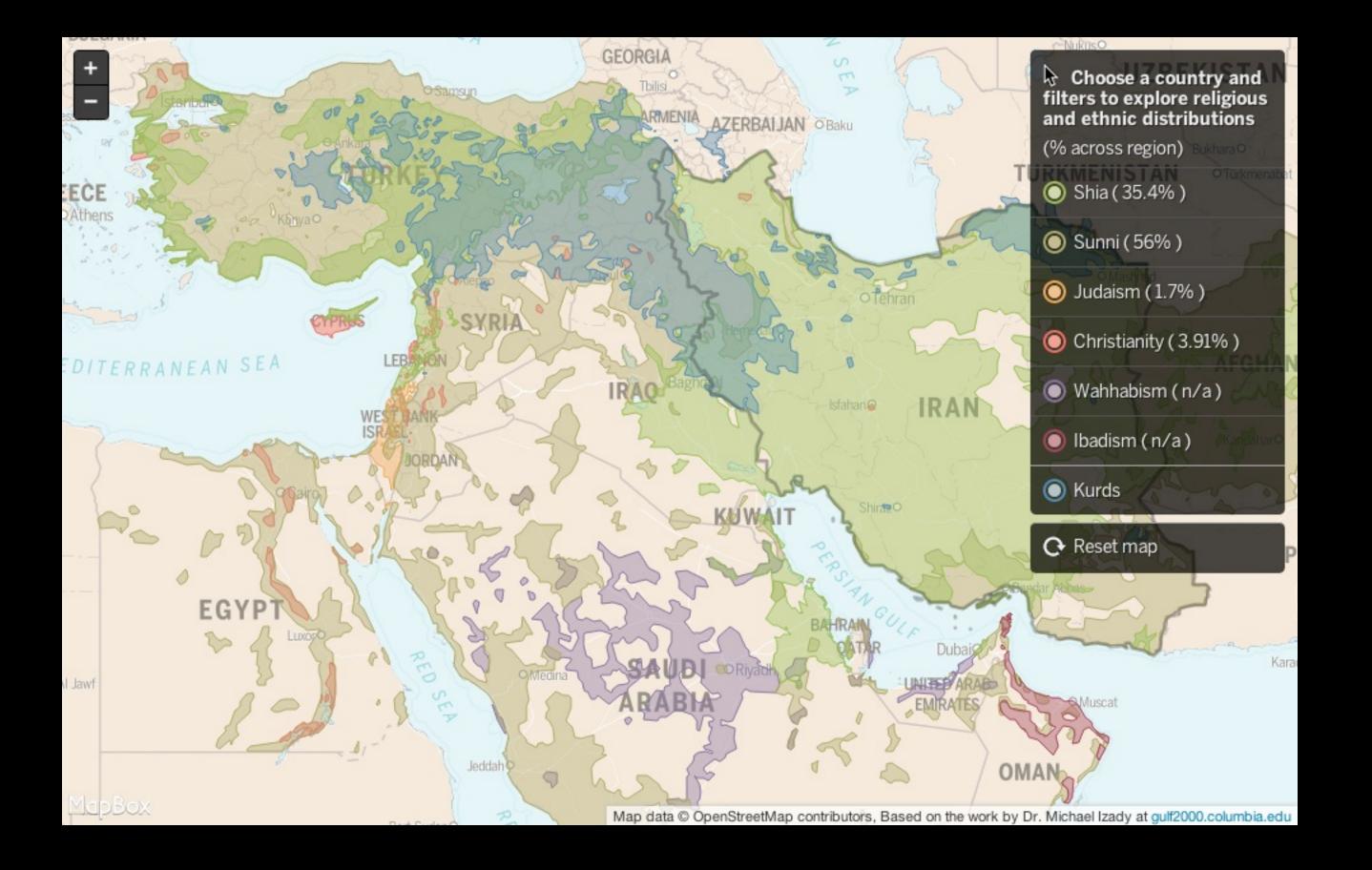
Q 1

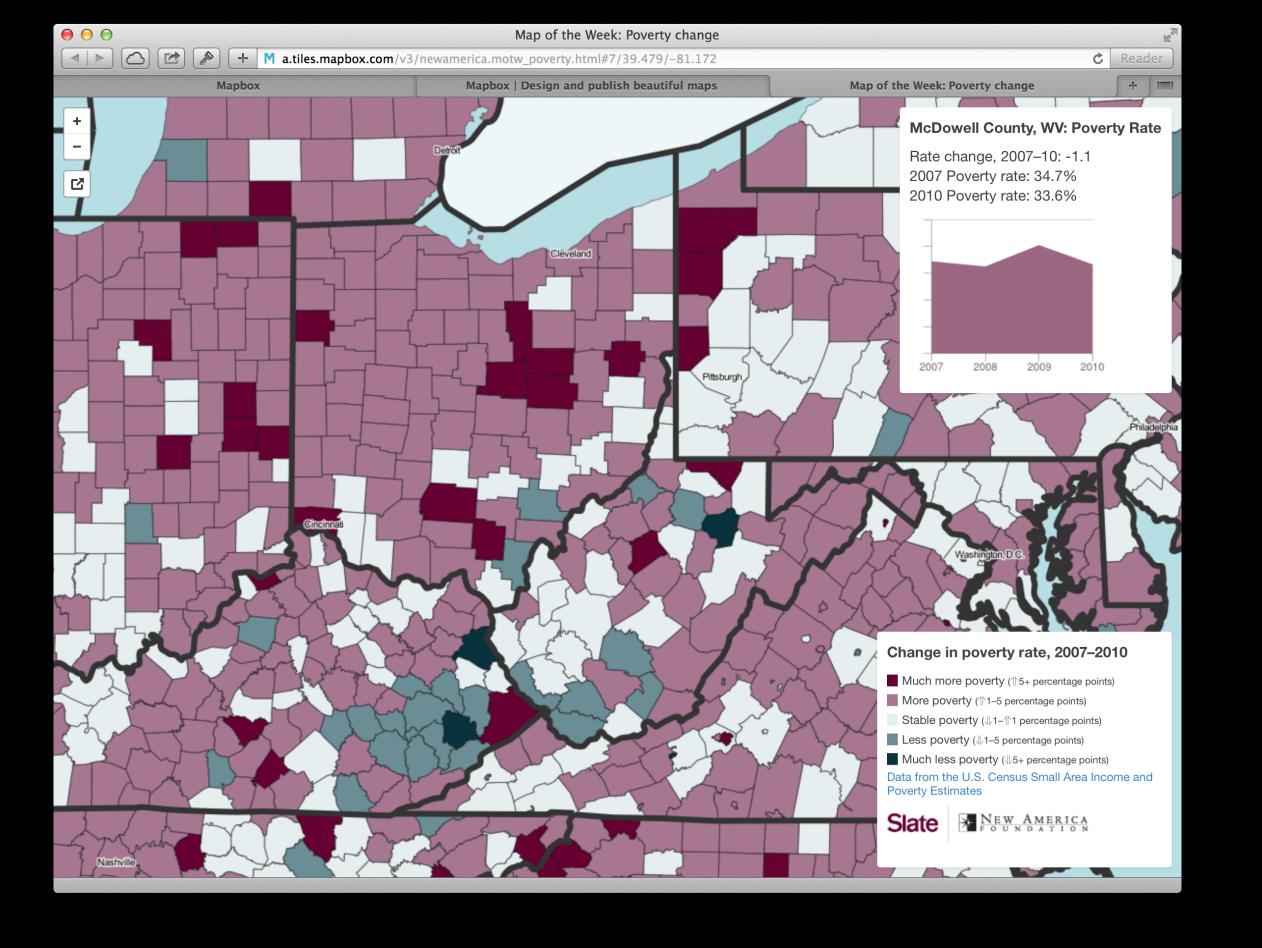
SPECIAL REPORT

#### ELECTION \* 12





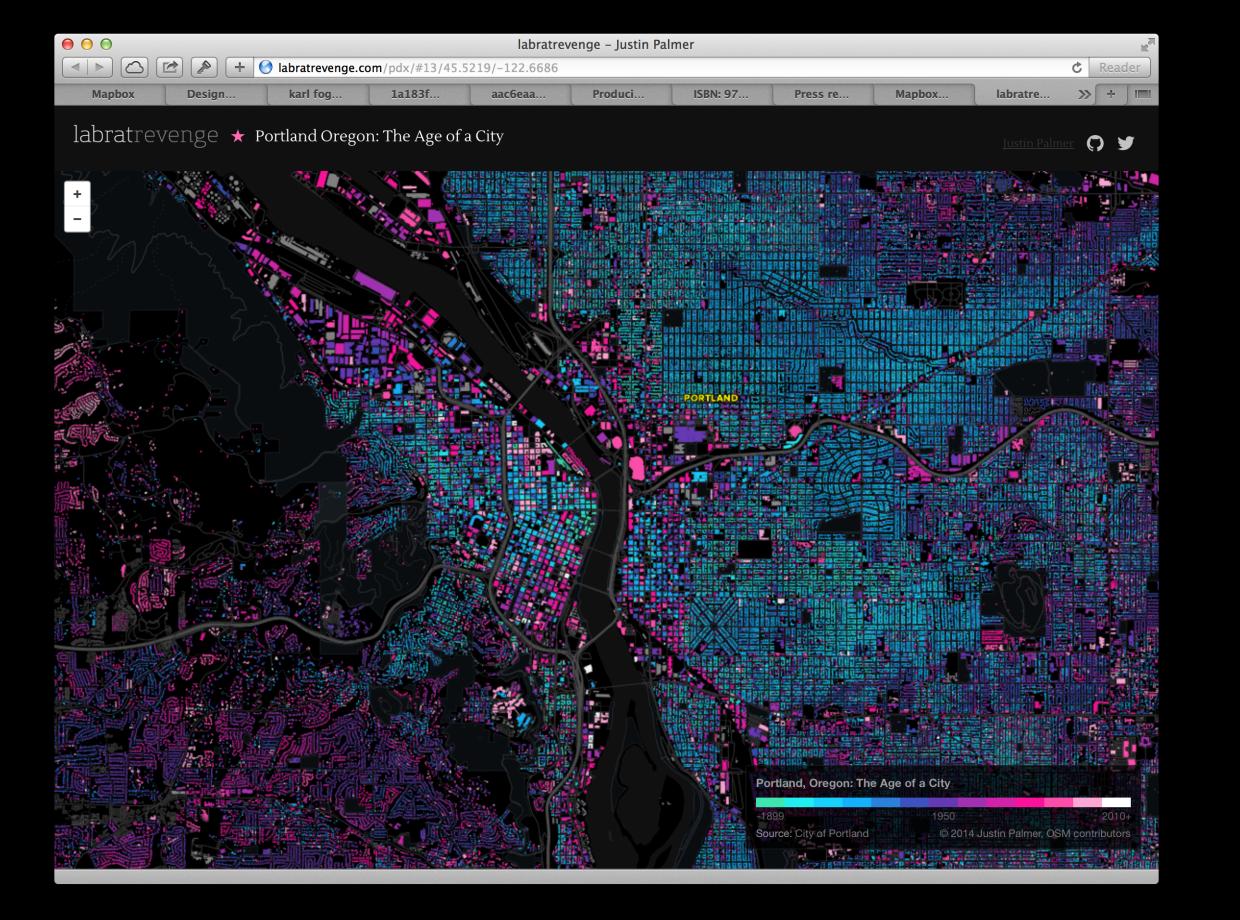


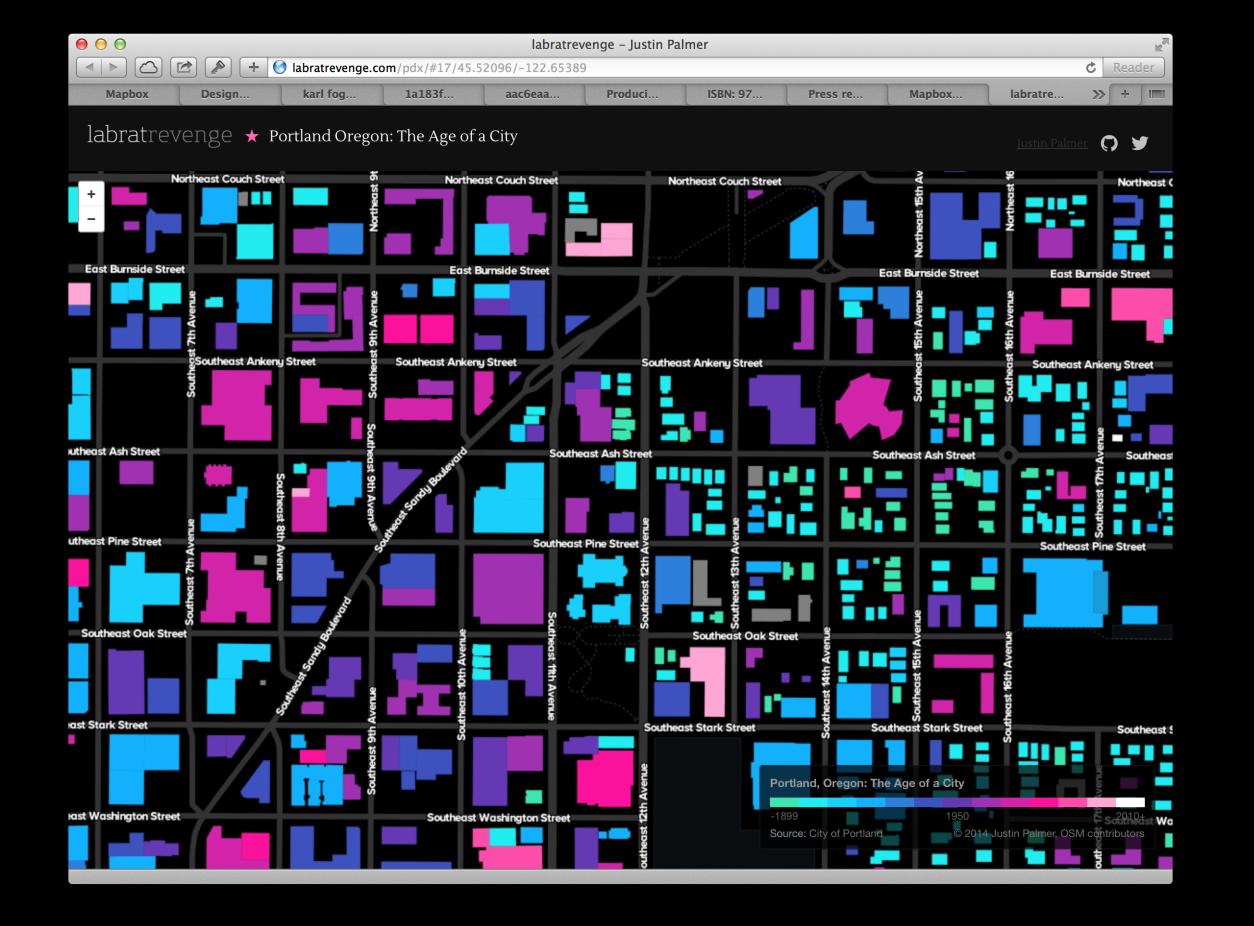


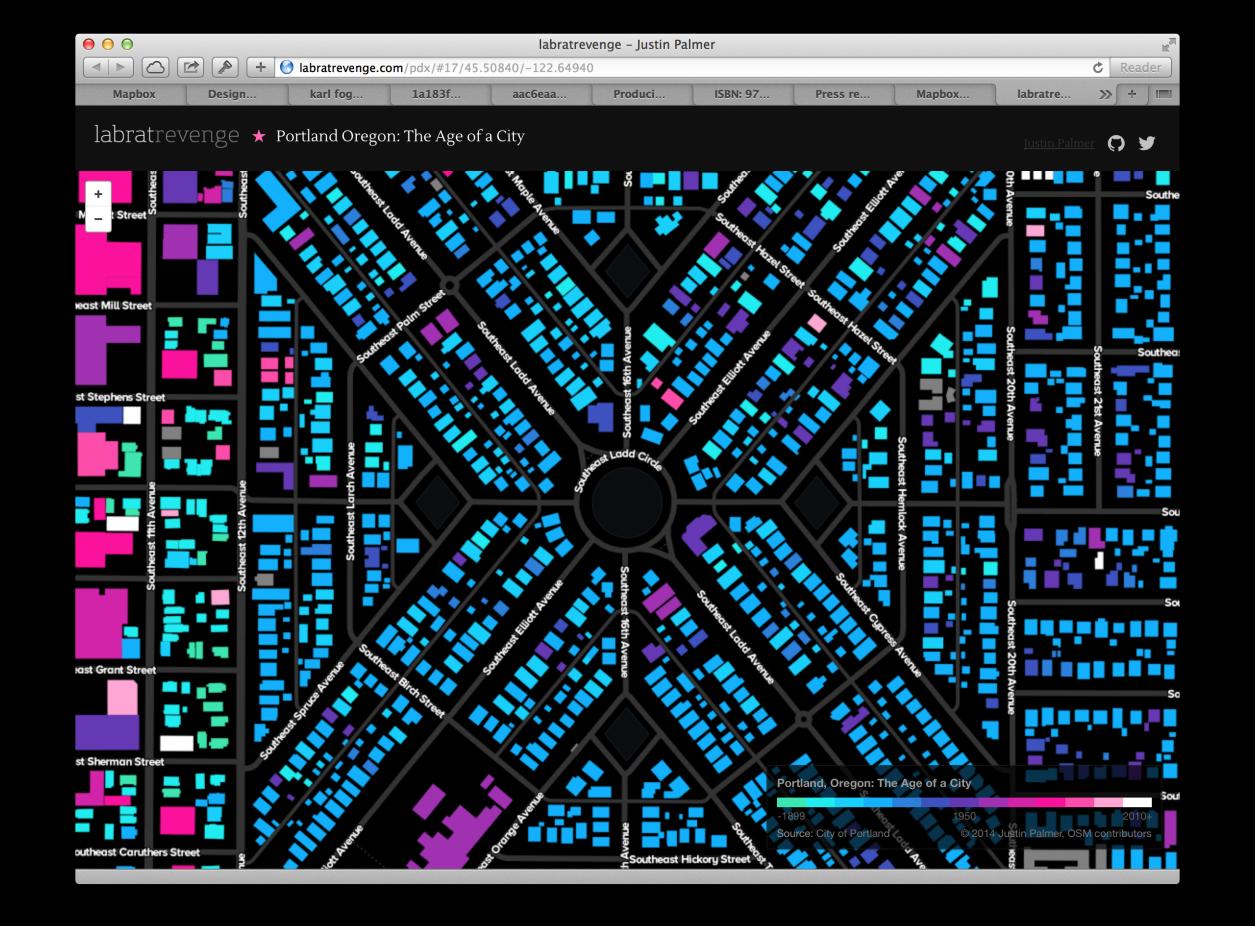






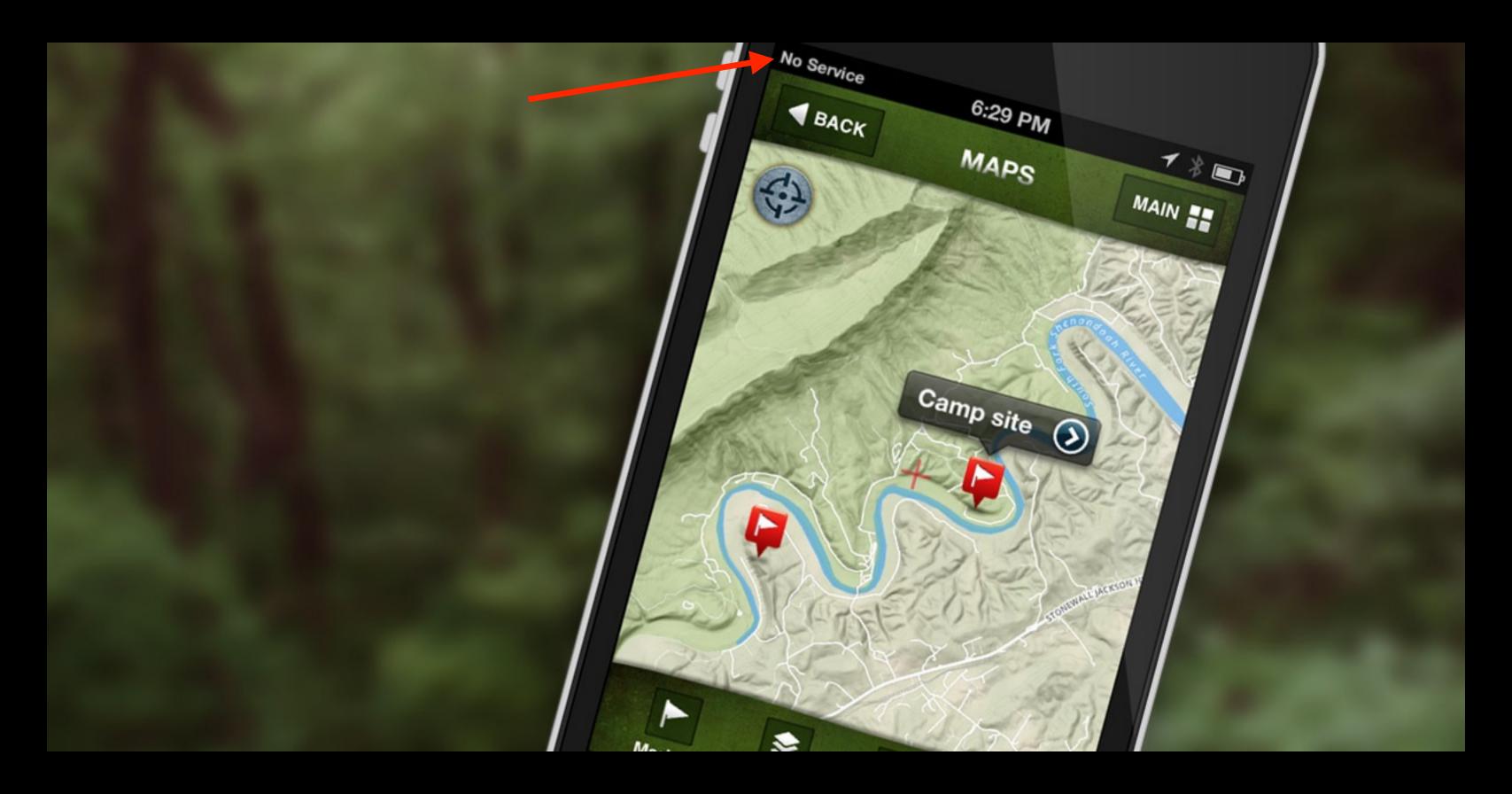




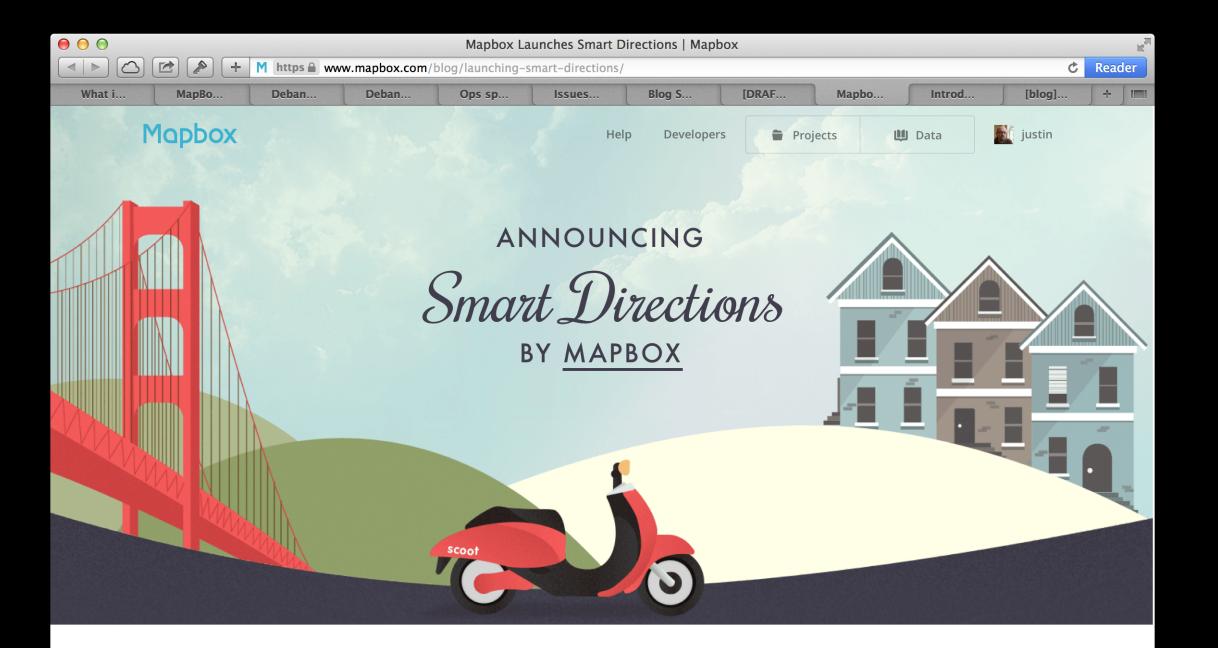




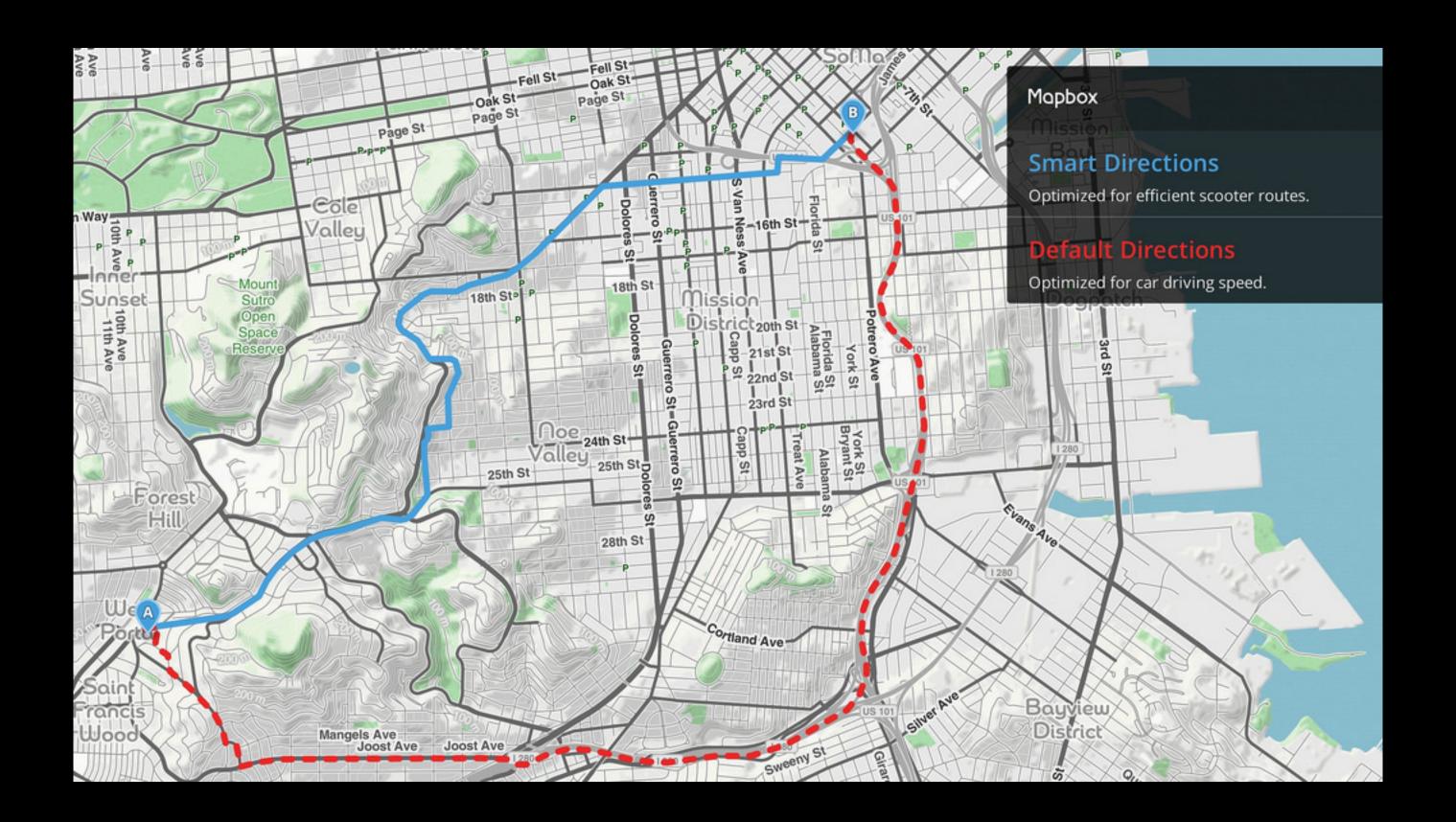


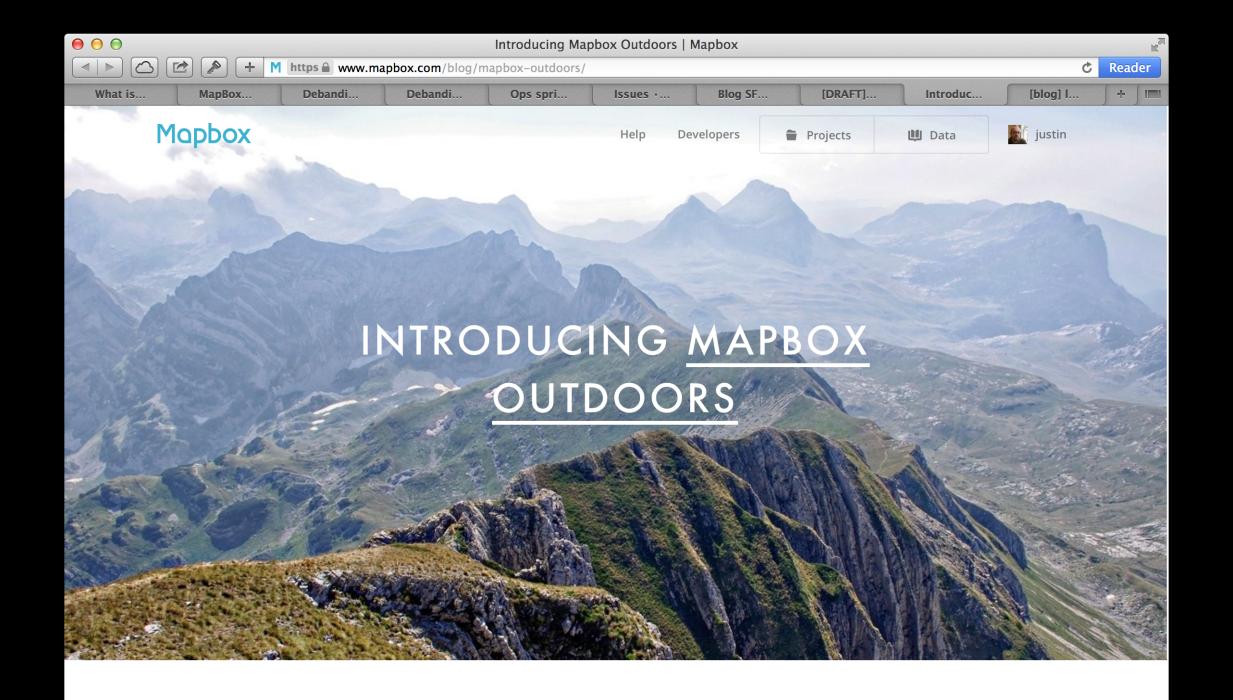






Mapbox just launched Smart Directions. Developers can now program routing profiles with the same level of customization that we bring to our map designs. This means full control over a key building block for location-based applications. Mapbox Smart Directions allows for custom routing profiles that work like a set of rules saying how users can get from Point A to Point B. It's no longer just about the shortest or fastest route — now you can have the most energy efficient route for your electric car, or a route with the steepest hills for training, or you can set your skill level to see only the mountain bike trails with which you're comfortable.



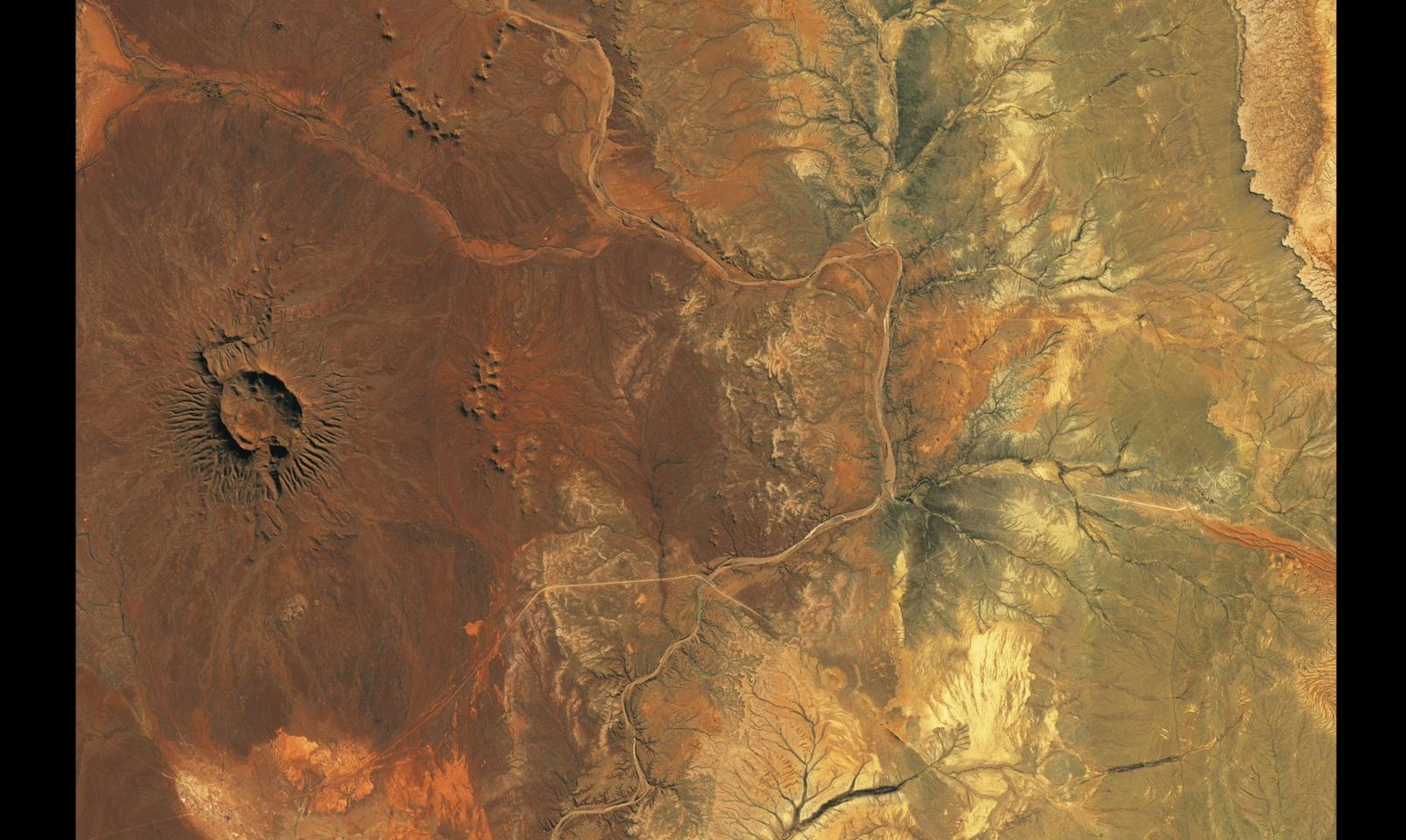


#### A beautiful new map designed for outdoor adventures.

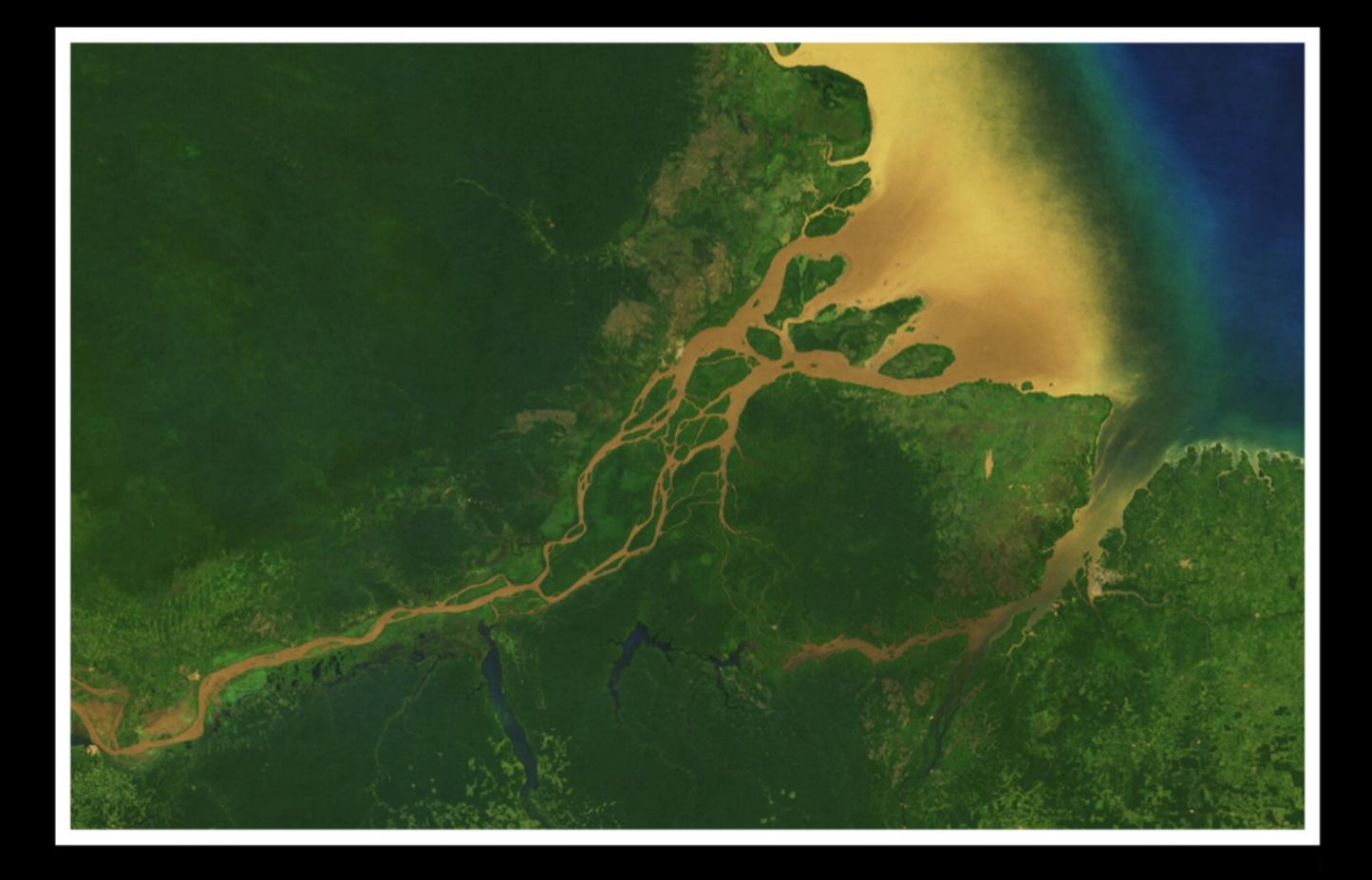
Mapbox Outdoors is ready for anything: it includes thousands of biking, hiking, and skiing trails on top of detailed terrain with elevation data. Off the beaten path, find marked creeks, mountain peaks, and other geological features. What would your activity tracker or travel













## How We Work

## 7 Concepts

## #1: Public By Default

- Consider if something really needs to be private
- Transparency around new projects & timelines
- Hire based on open source projects

#### What Needs to Be Private?

- HR & personal info (email or private chat)
- Internal strategy
  - Where we are trying to move space
  - "Avoid Private Discussions"

#### #2: Decisions Make Leaders

- Credit for phrase: @JessieChar
- Managers need to be briefed, sure
- But everyone manages at various points in time
- "Benevolent Dictators" →
- "Consensus-based Democracy" -

#### Benevolent Dictators 🖘

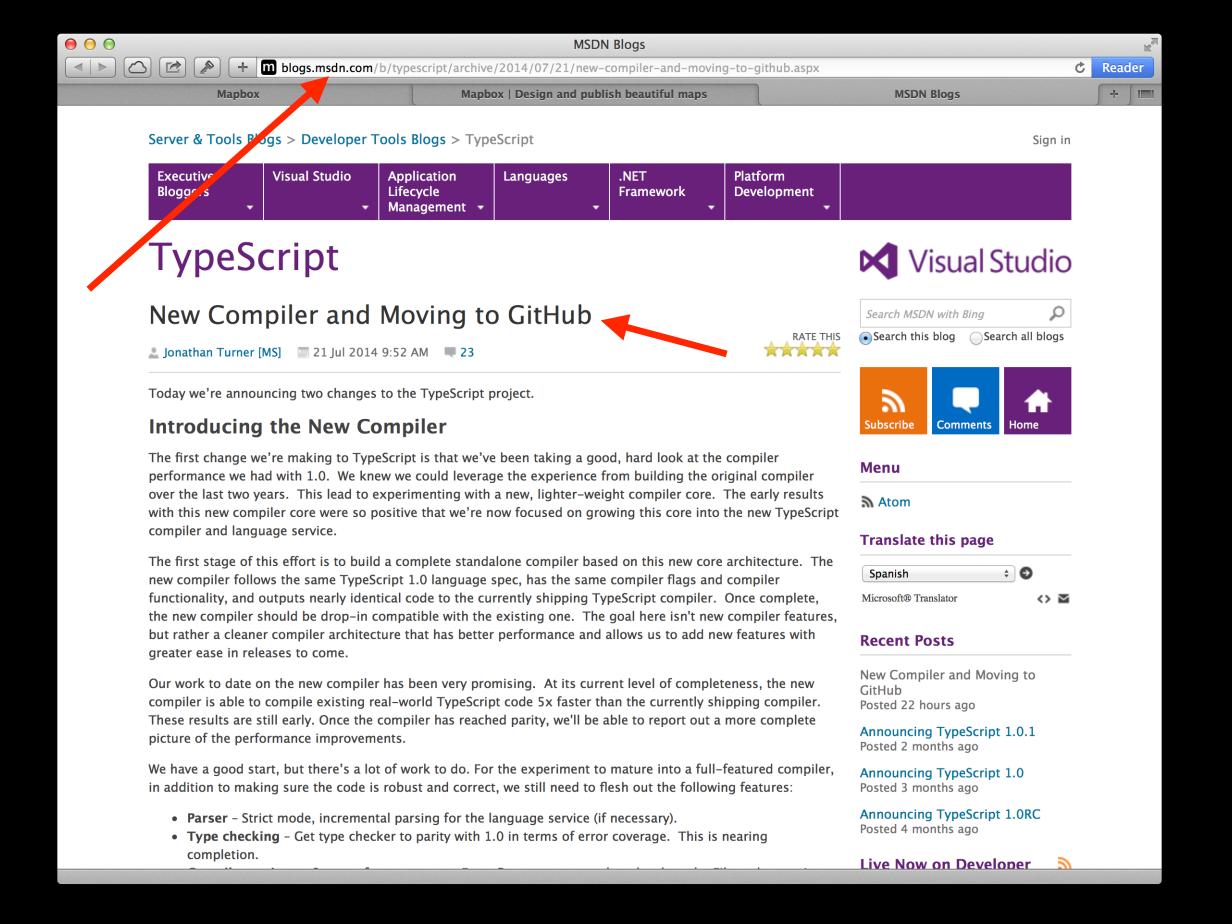
- "The benevolent dictator model is exactly what it sounds like: final decision-making authority rests with one person, who, by virtue of personality and experience, is expected to use it wisely."
- "...benevolent dictators commonly do not dictate much. Instead, they let things work themselves out through discussion and experimentation whenever possible."

### Consensus-based Democracy

- "Most conversation in a project is on technical topics [...] Consensus-based governance works well because it blends seamlessly with the technical discussion itself. By the end of a discussion, there is often general agreement on what course to take."
- "Version Control Means You Can Relax"

## #3: Live in Your Tools

- Choose great tools
- Dogfood the things that you build
- Keep a consistent interface



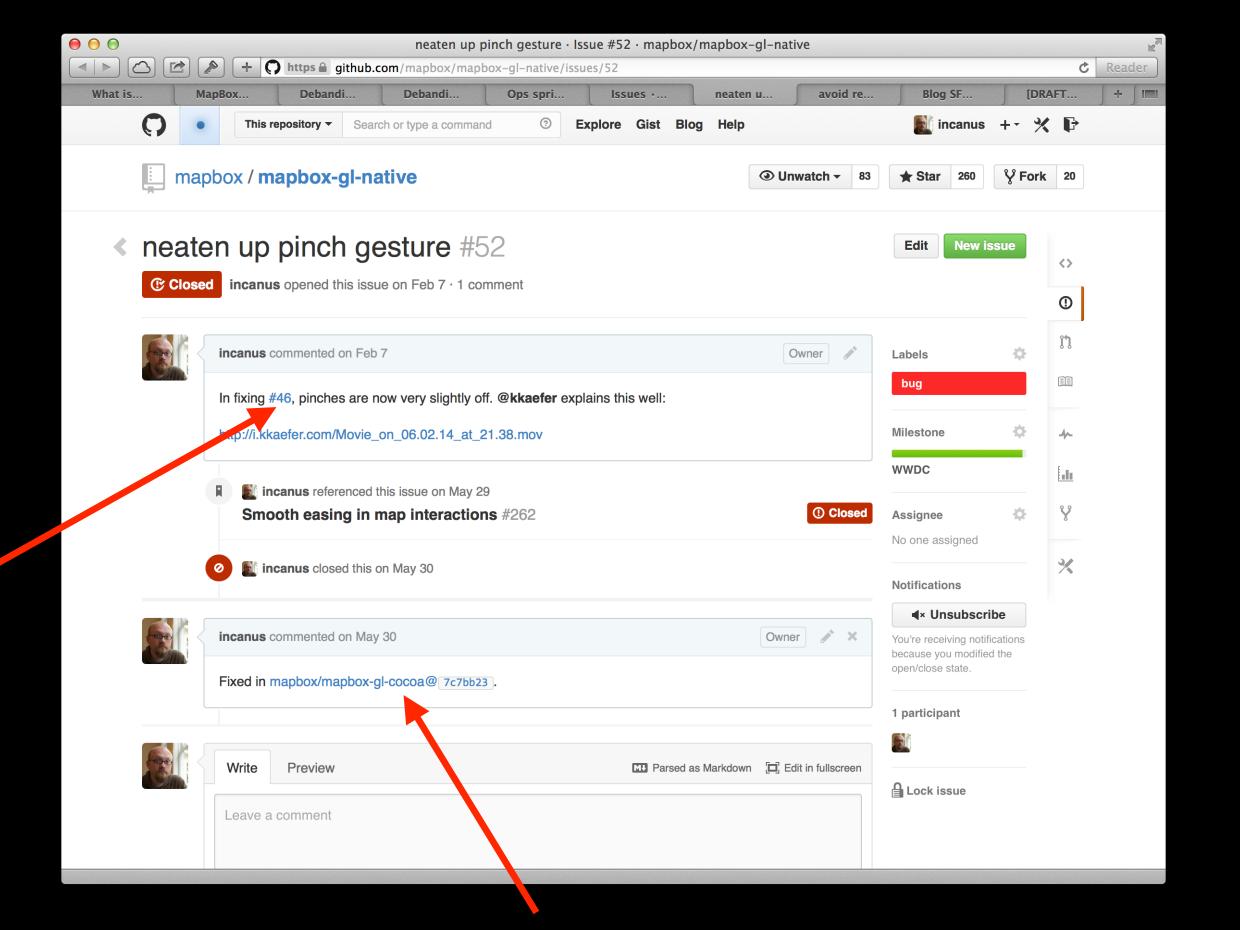
#### Wins With GitHub

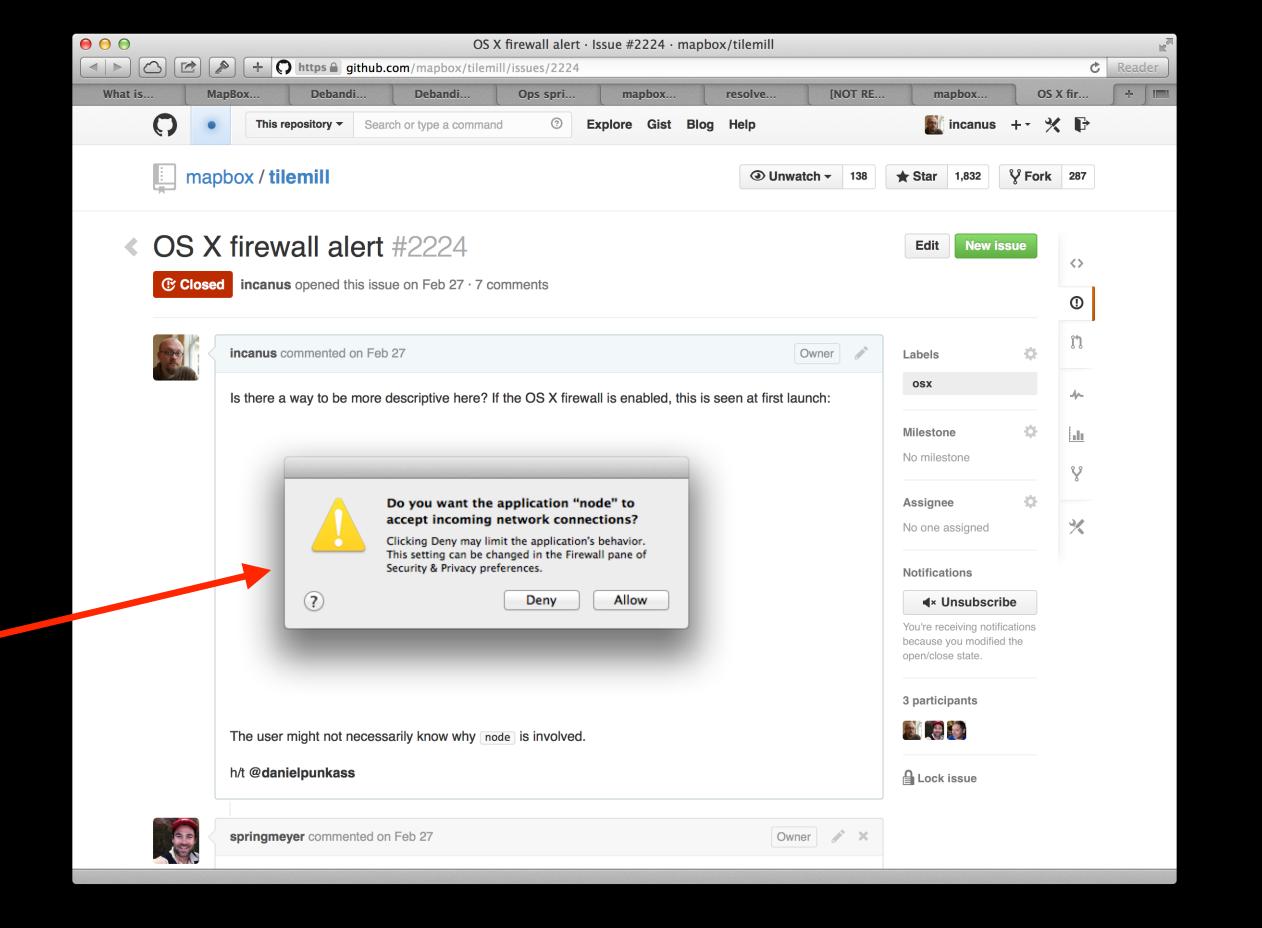
- Code & commentary inline
- Pull requests
  - We even use these for blog posts
- Fast search
- Teams & notifications

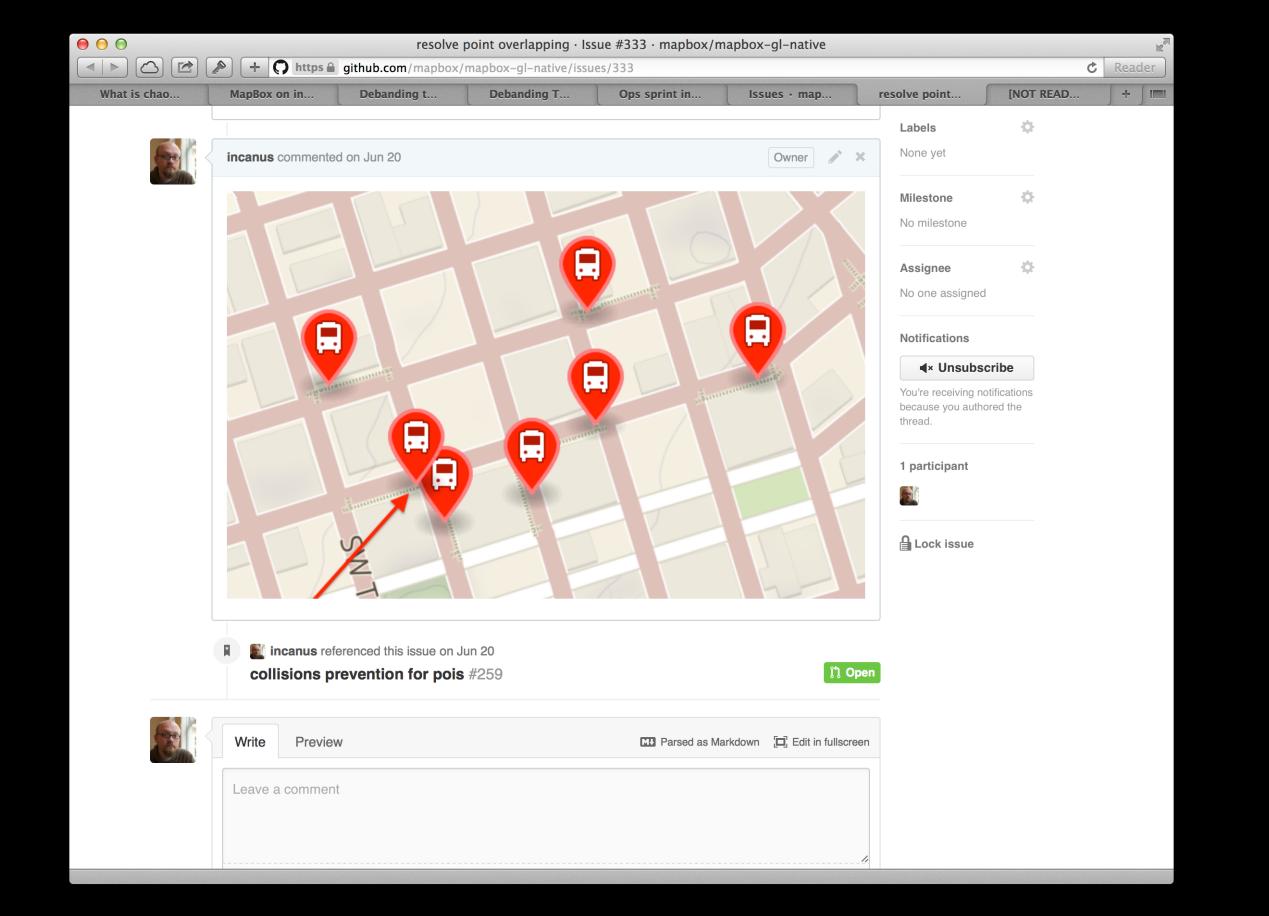
## Things We Do On GitHub

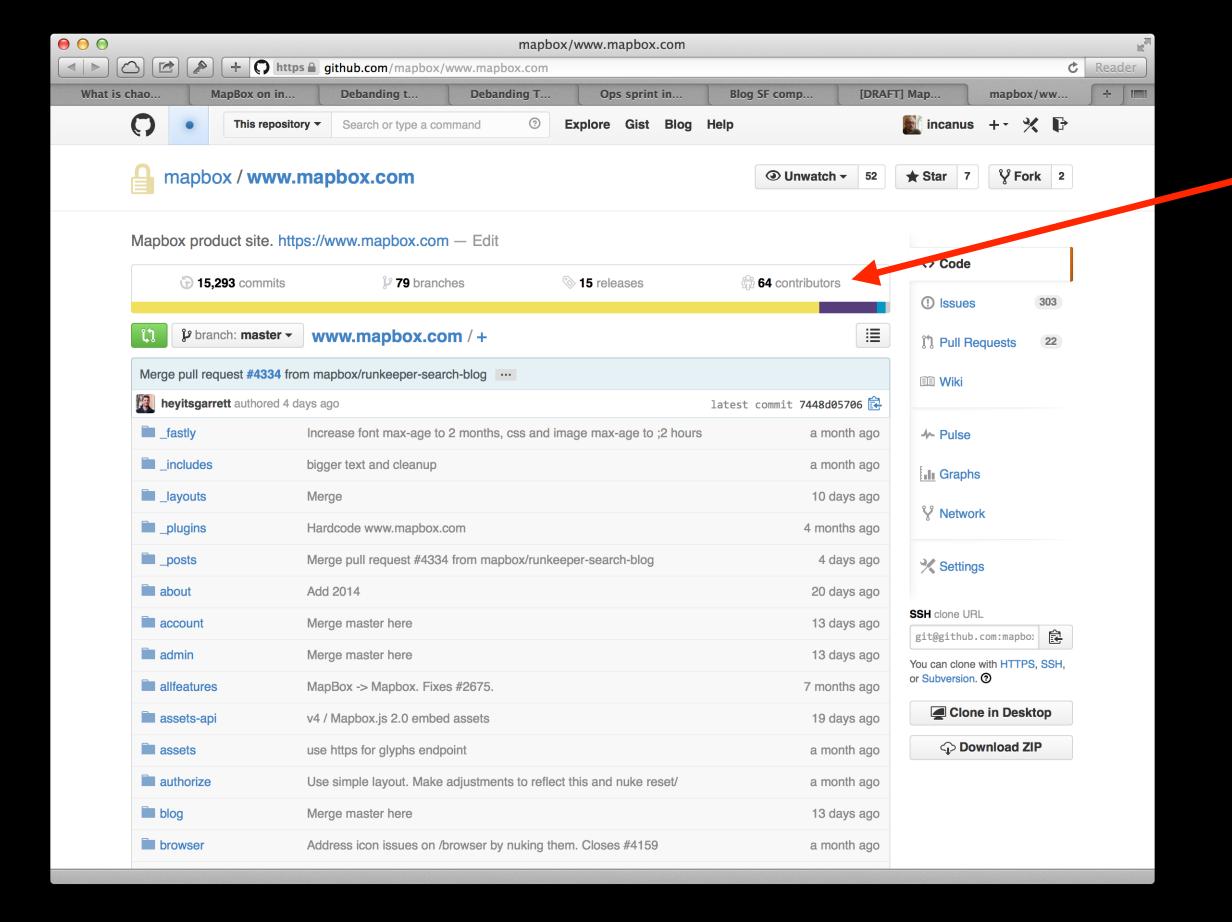
- Technical projects & code (naturally)
- Intranet & team announcements
- Communications strategy
- Recruiting
- Business strategy

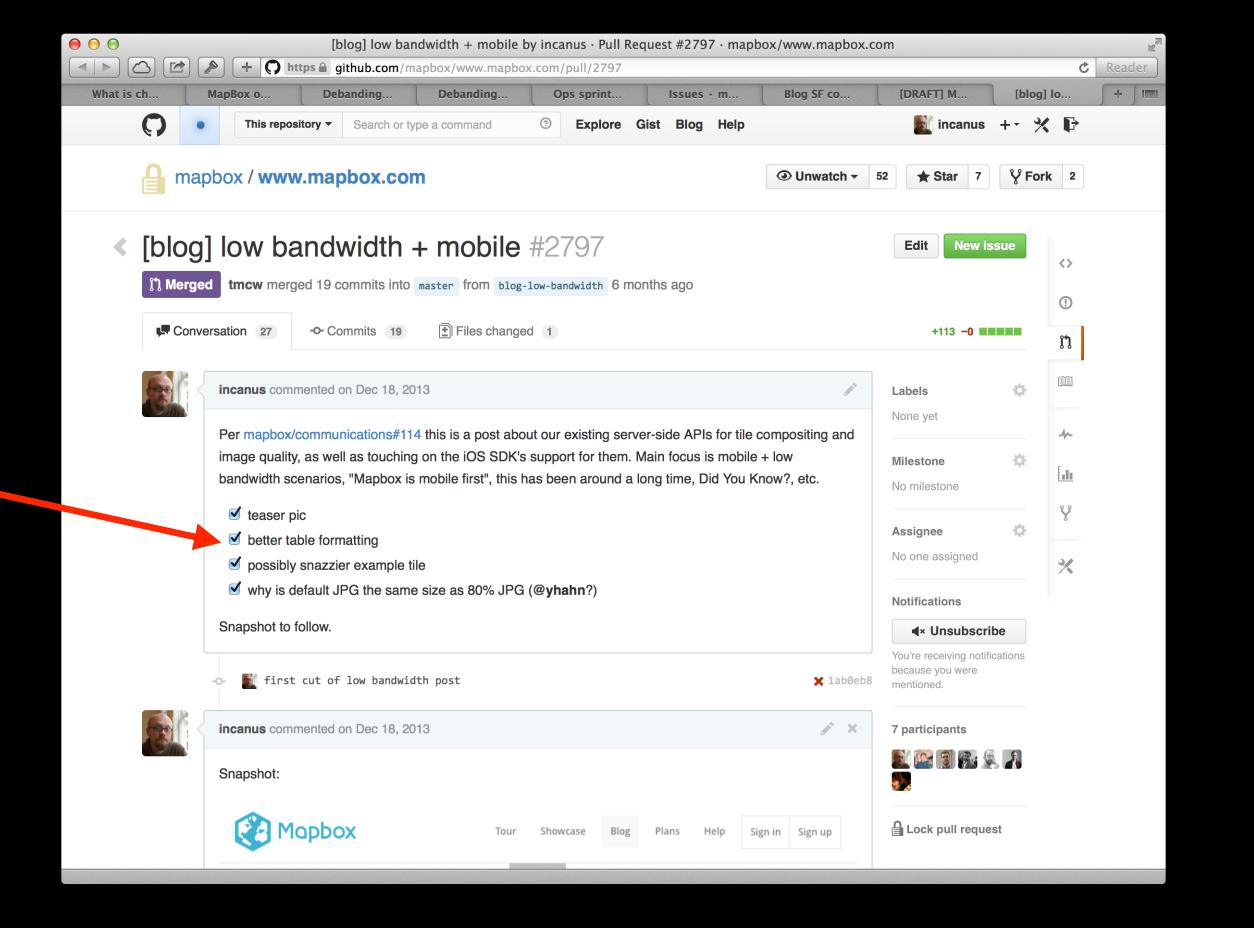
- Sales leads
- Outreach
- All websites
- Core API
- Office (travel, equipment, office spaces, events, vacation)

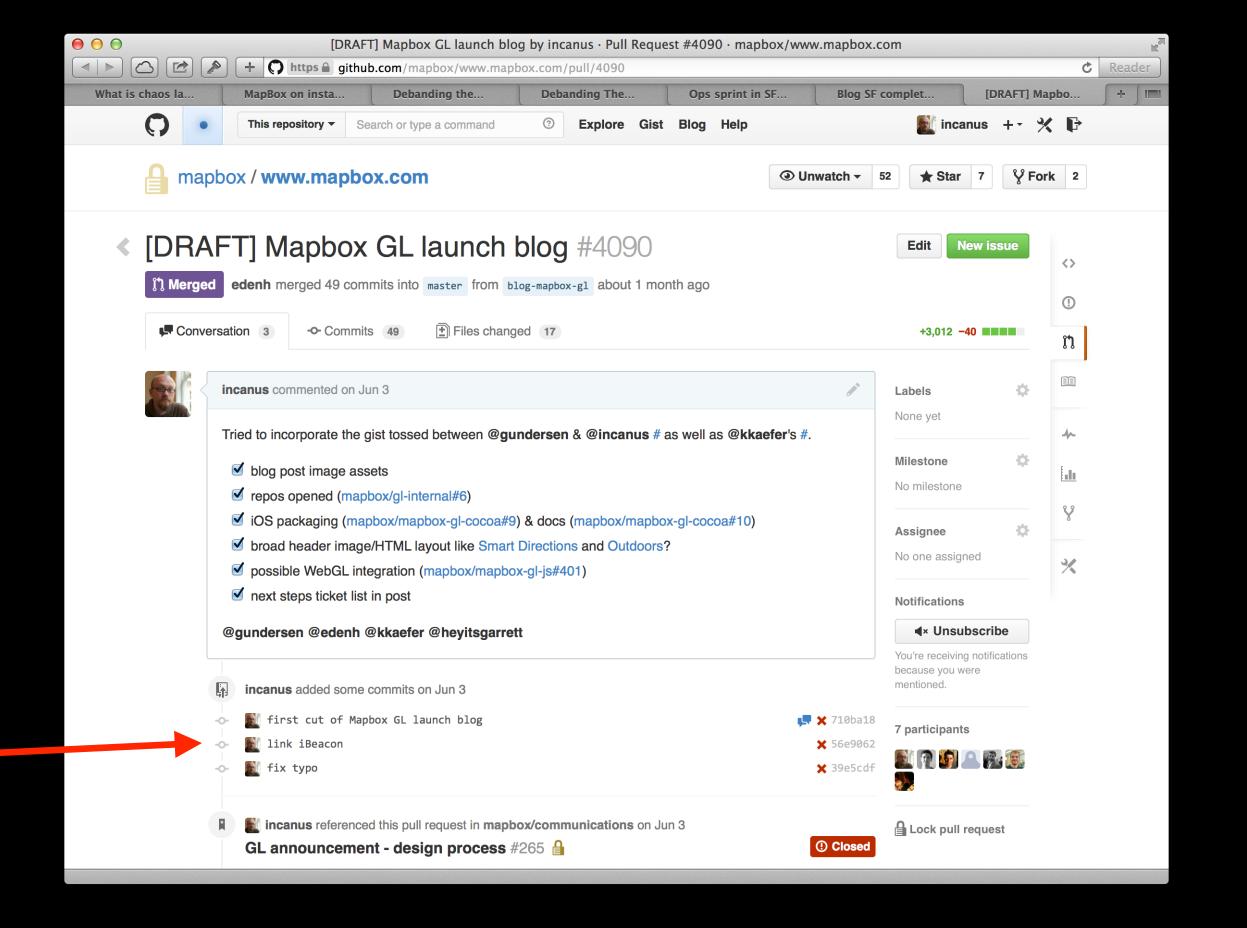


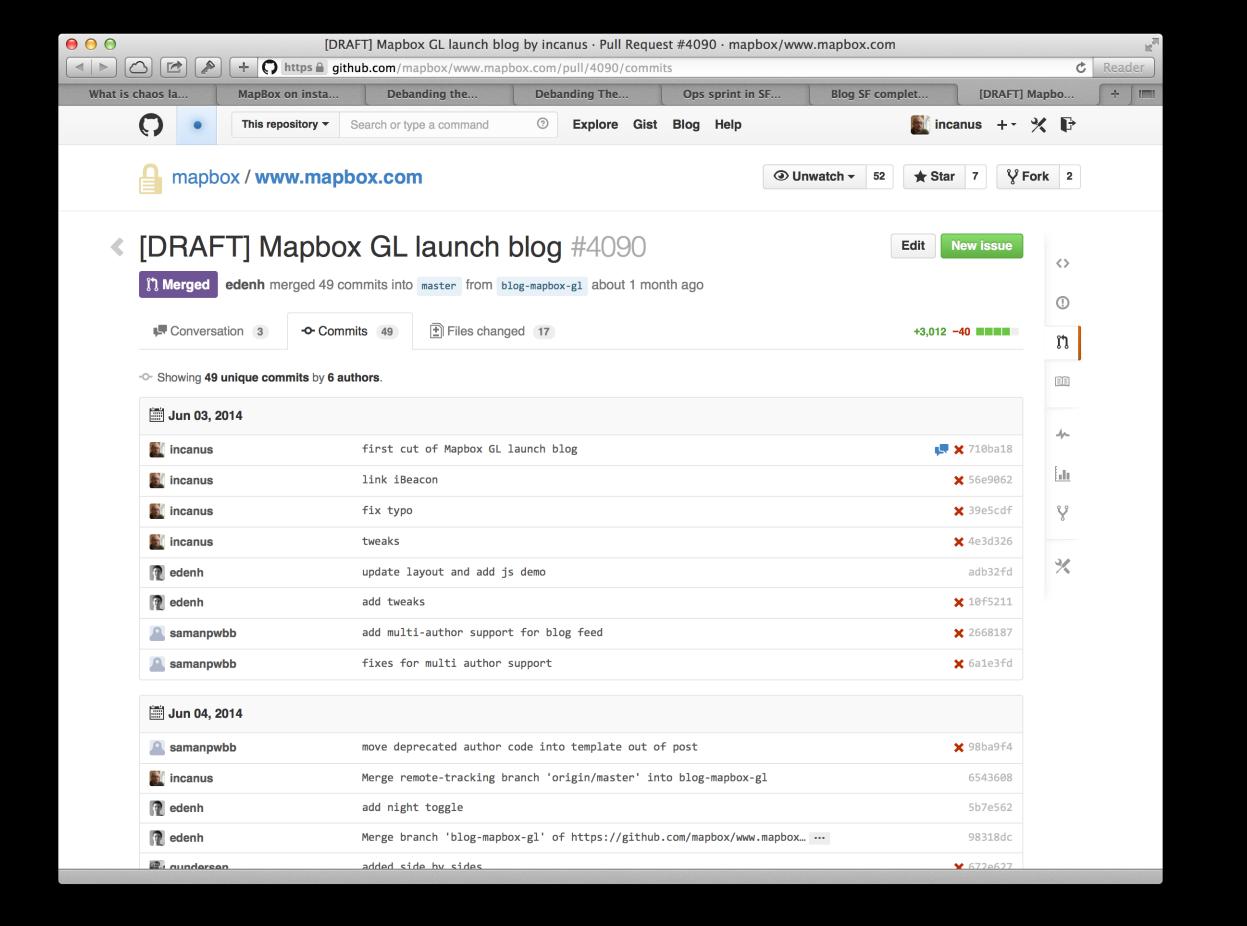


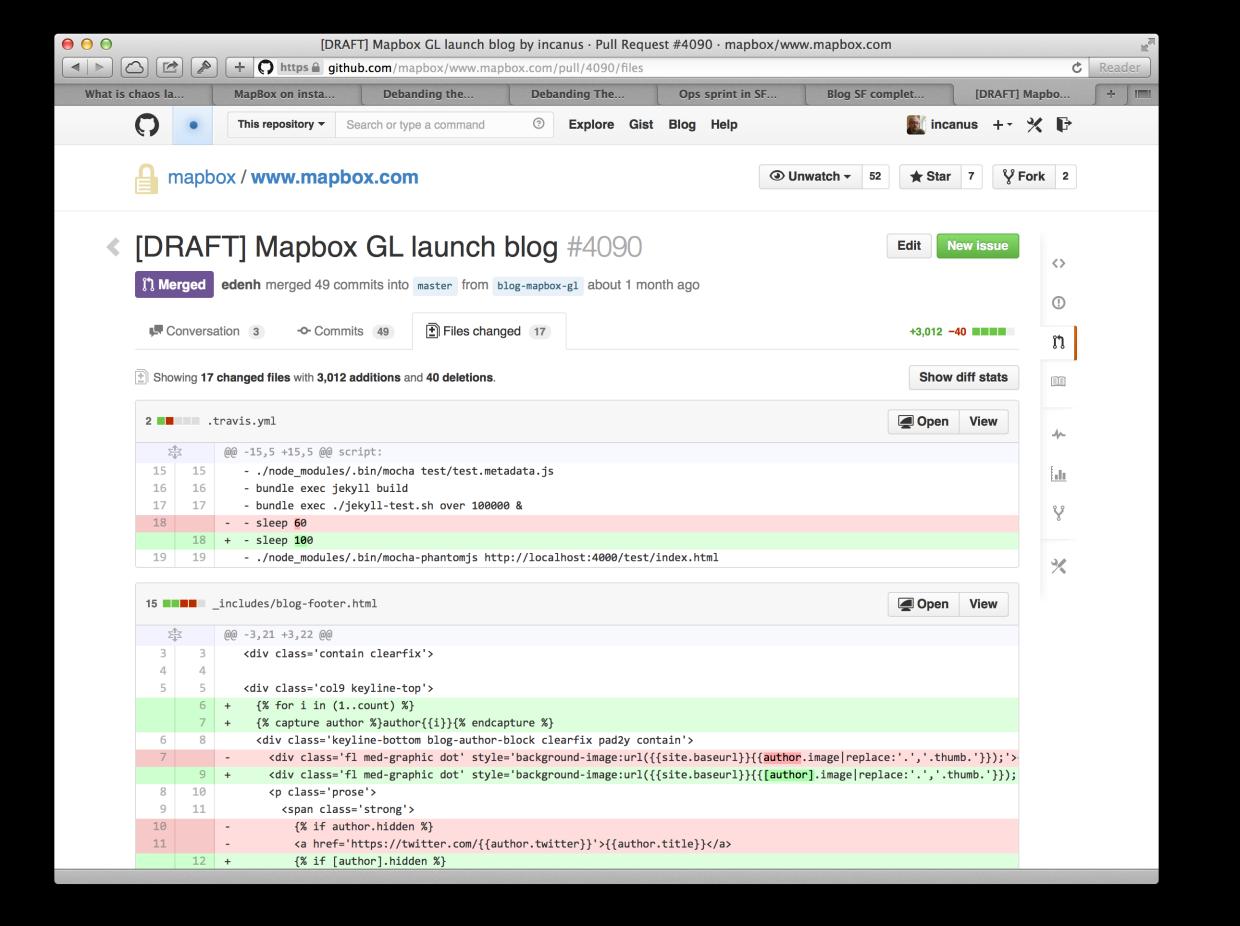


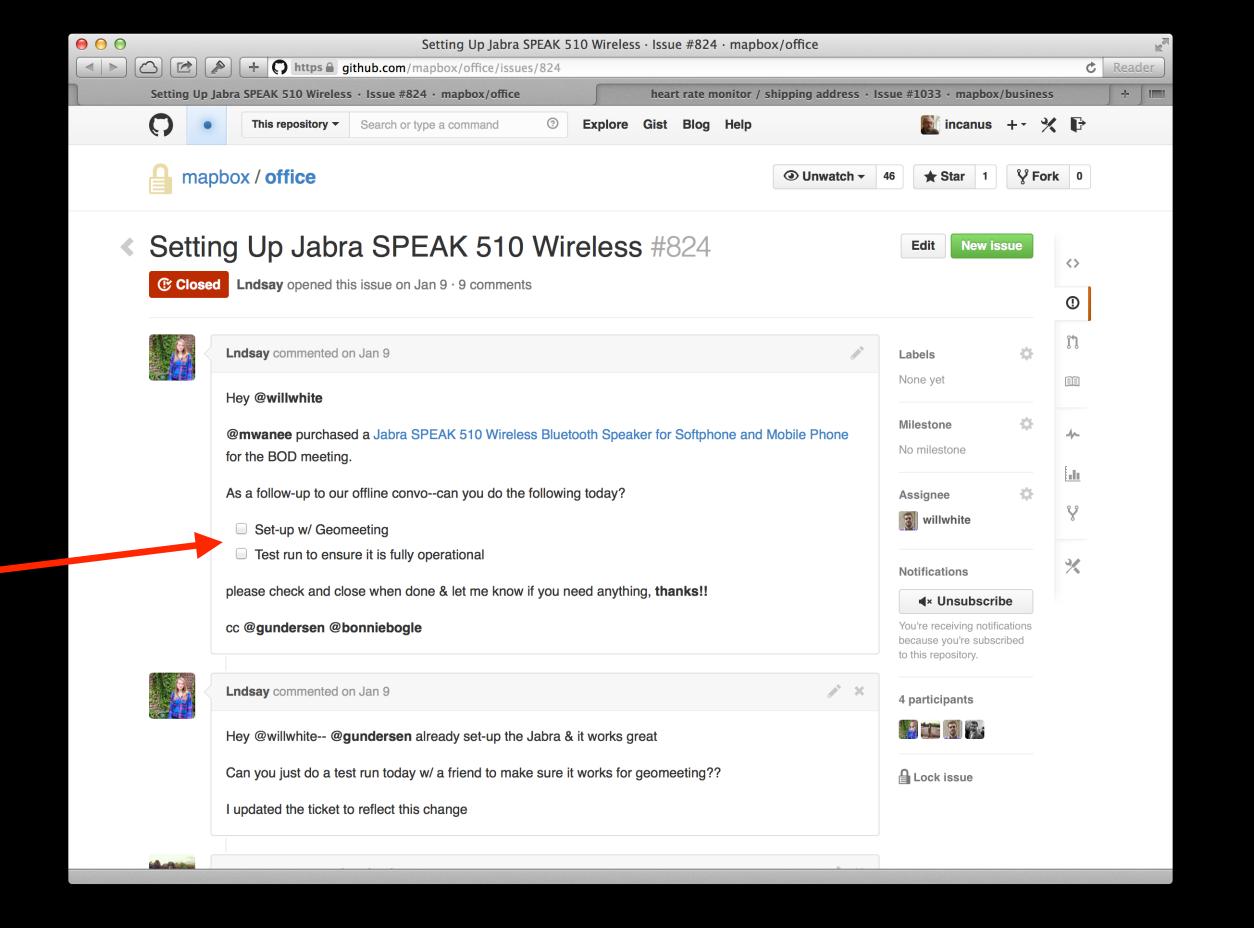


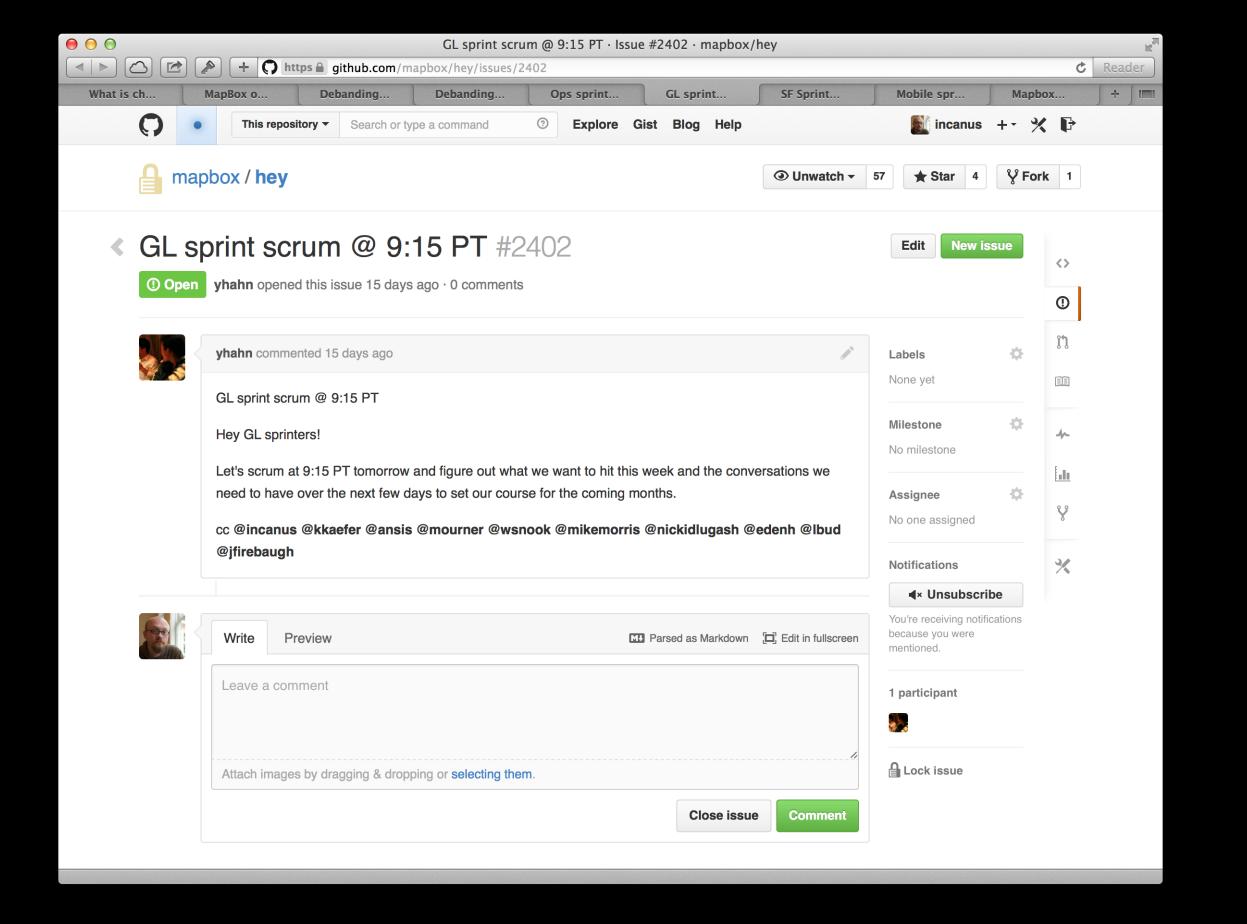


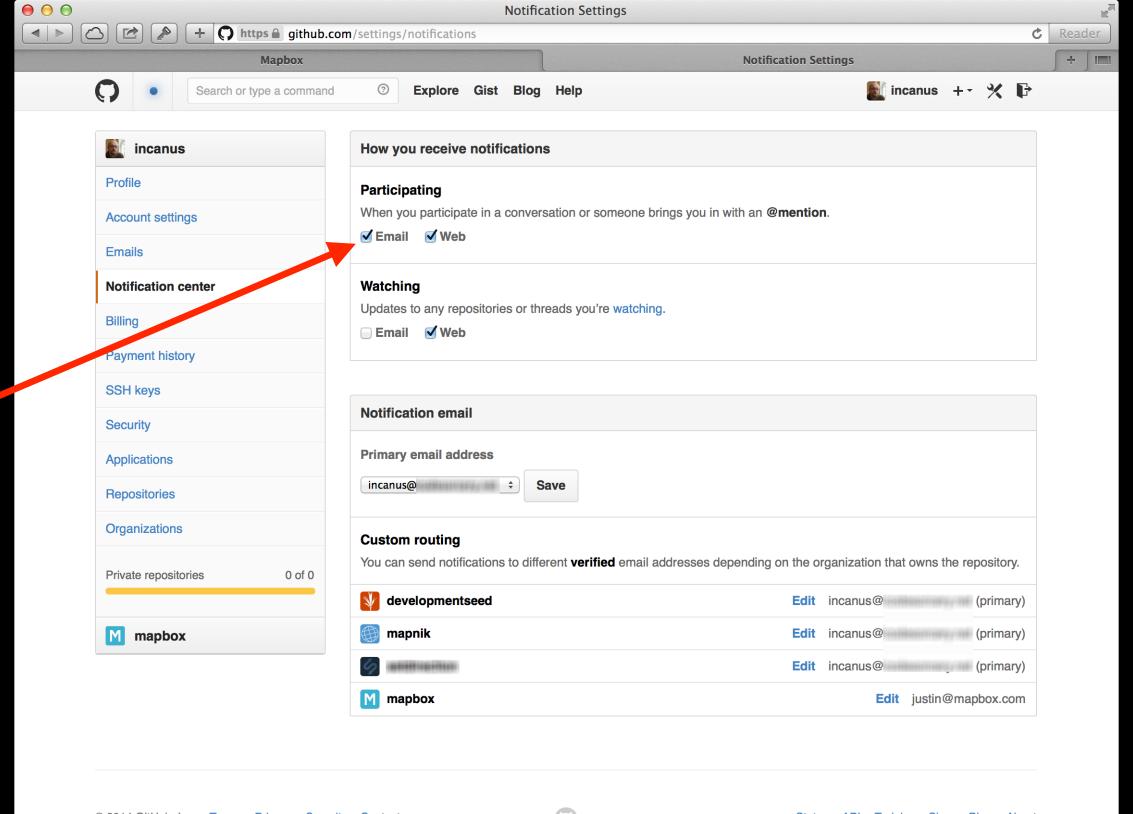




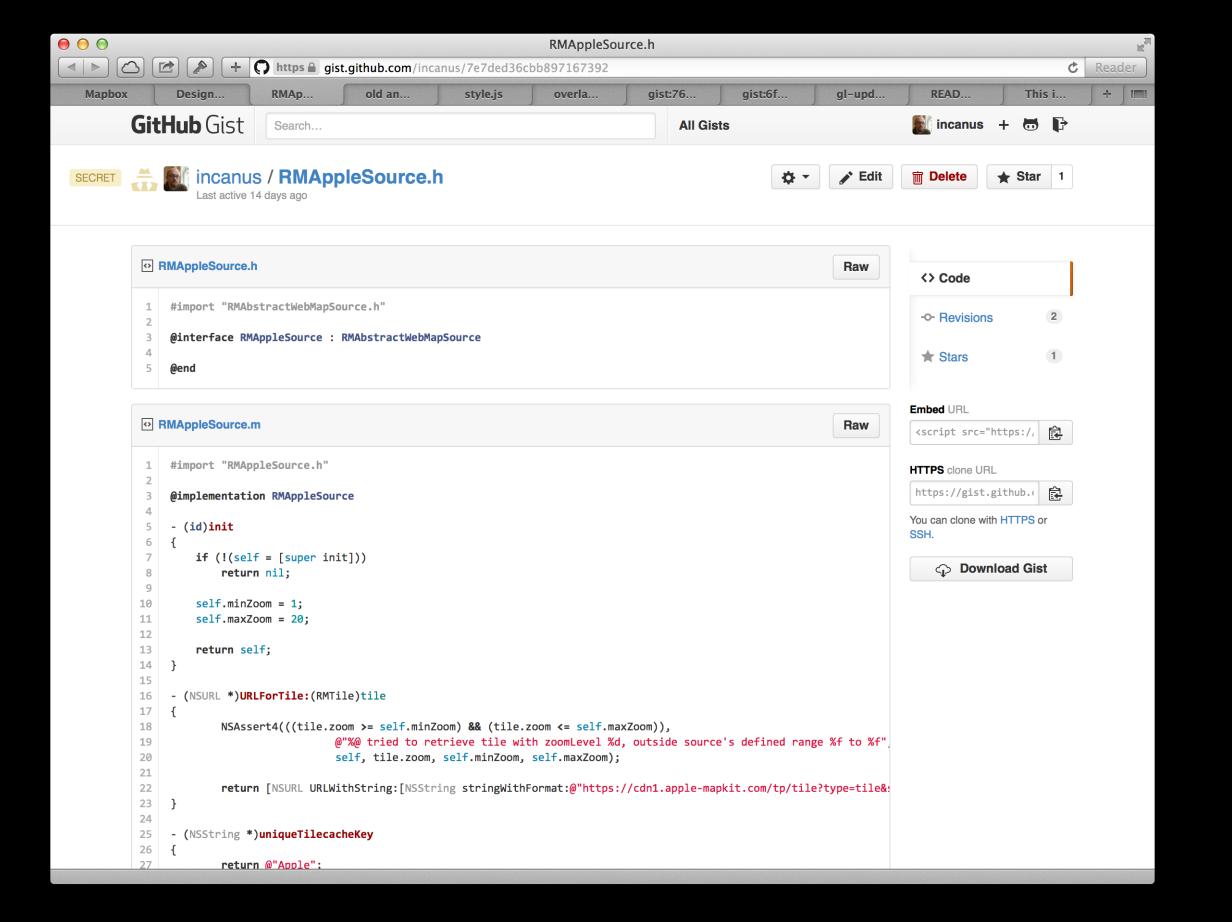


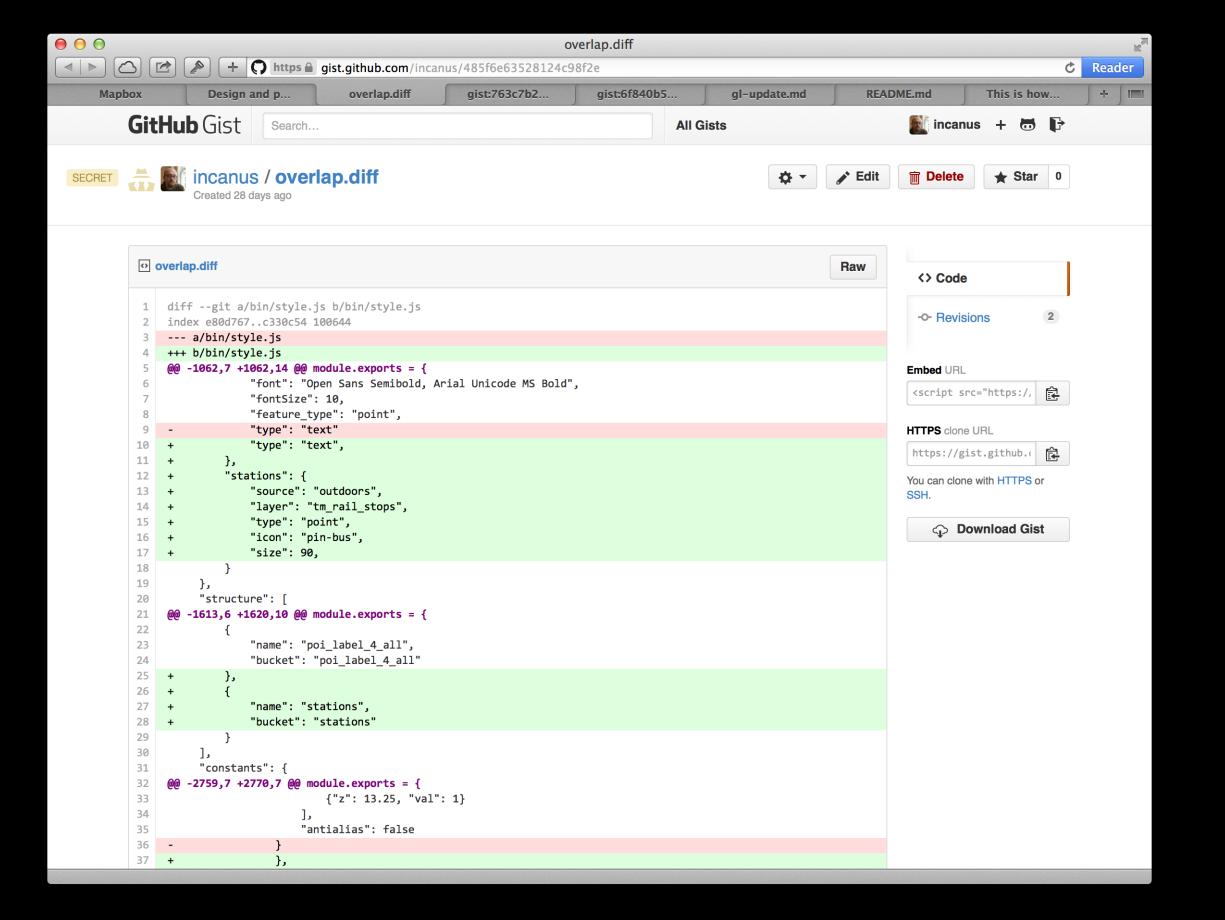


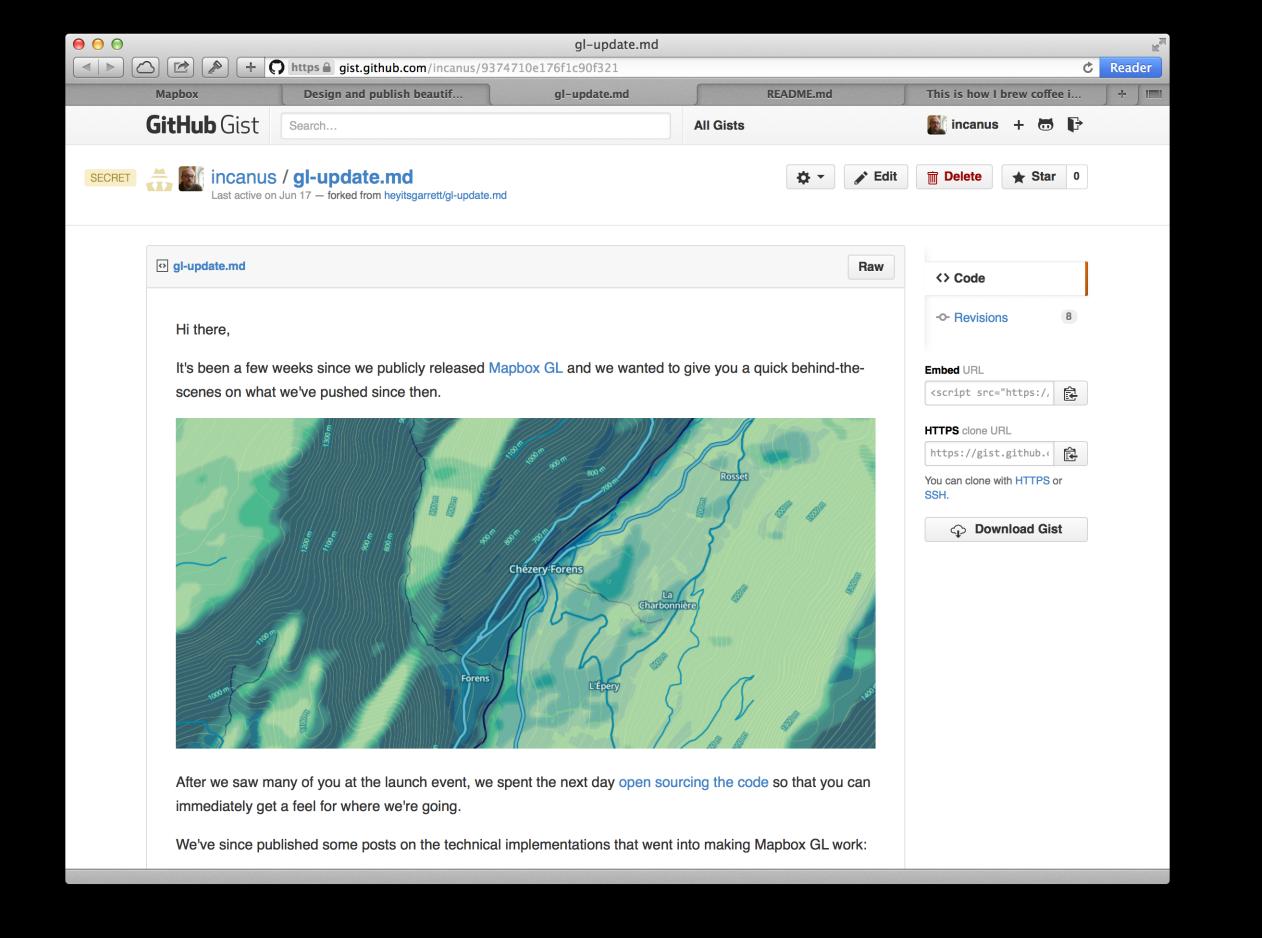


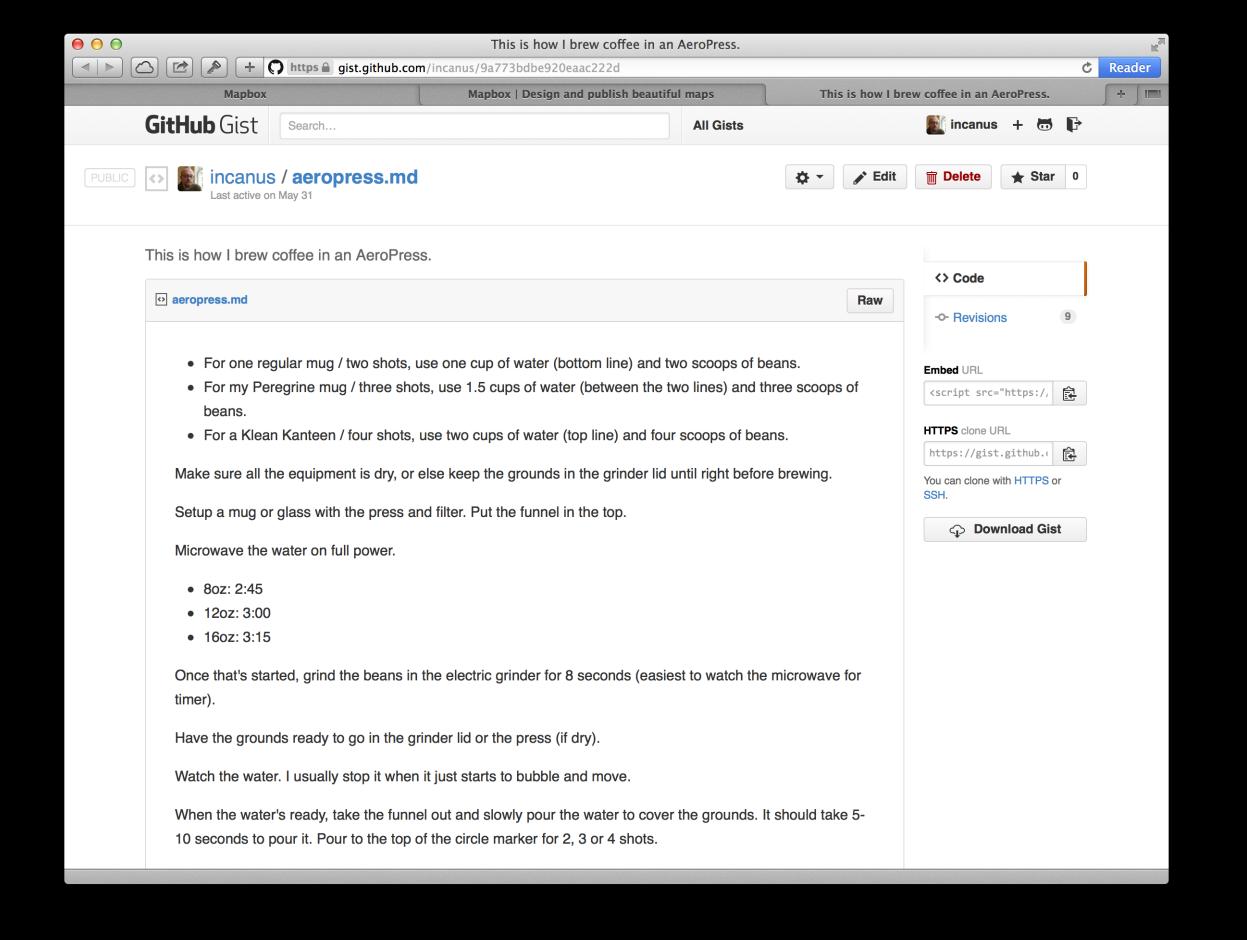


# https://gist.github.com



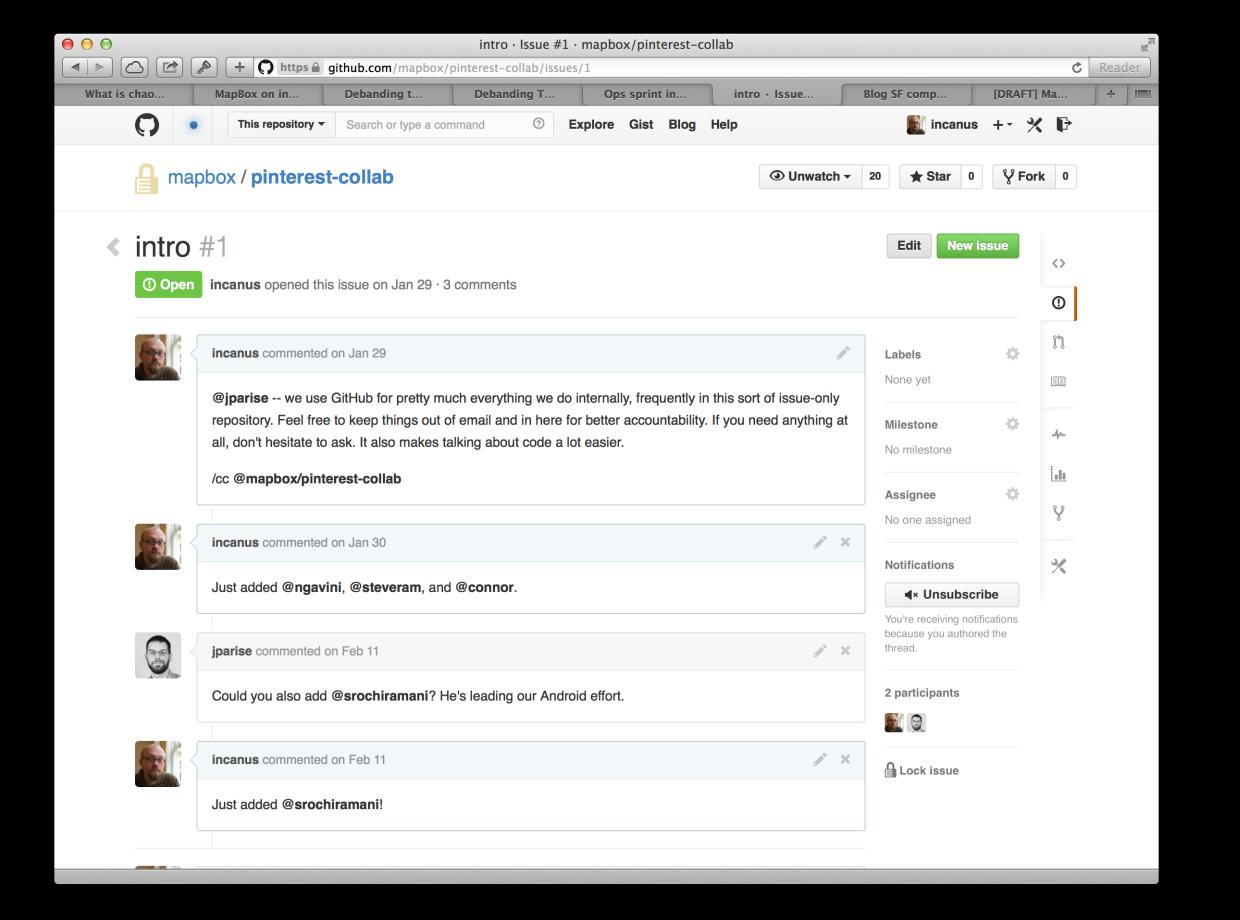






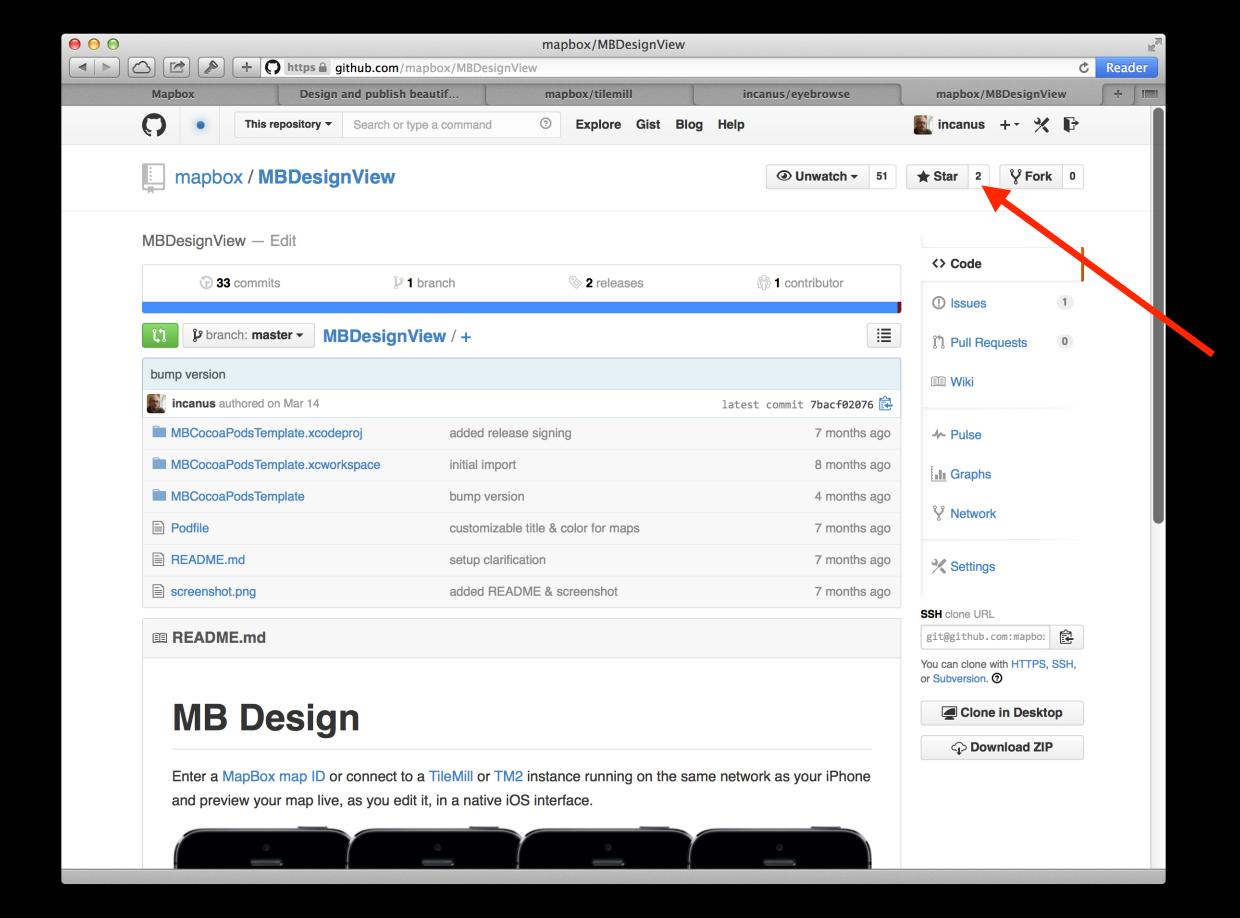
## #4: Lose the Repetition

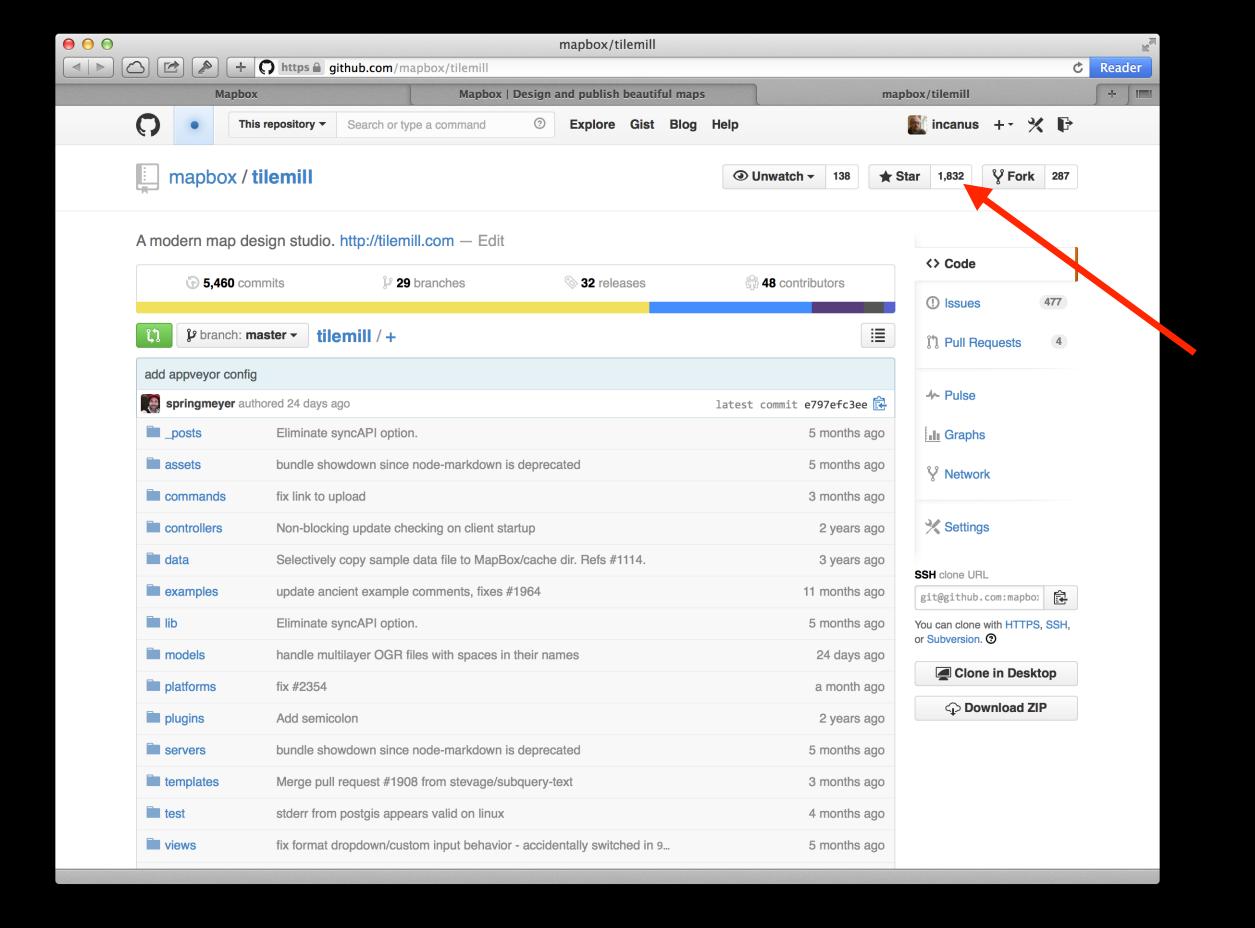
- "Don't Post Without a Purpose" 🖘
  - Do you know what you want to accomplish?
  - Will it not get accomplished unless you say something?
- "Collab repos"



## #5: R&D at the Fringe

- "We don't have dedicated R&D it's integrated with the people who can push to master." CEO
- Repos & branches are cheap
- Keeps ideas concrete, not abstract
- Remove **all** rough edges
- Know when to punt





## Project Lifecycle

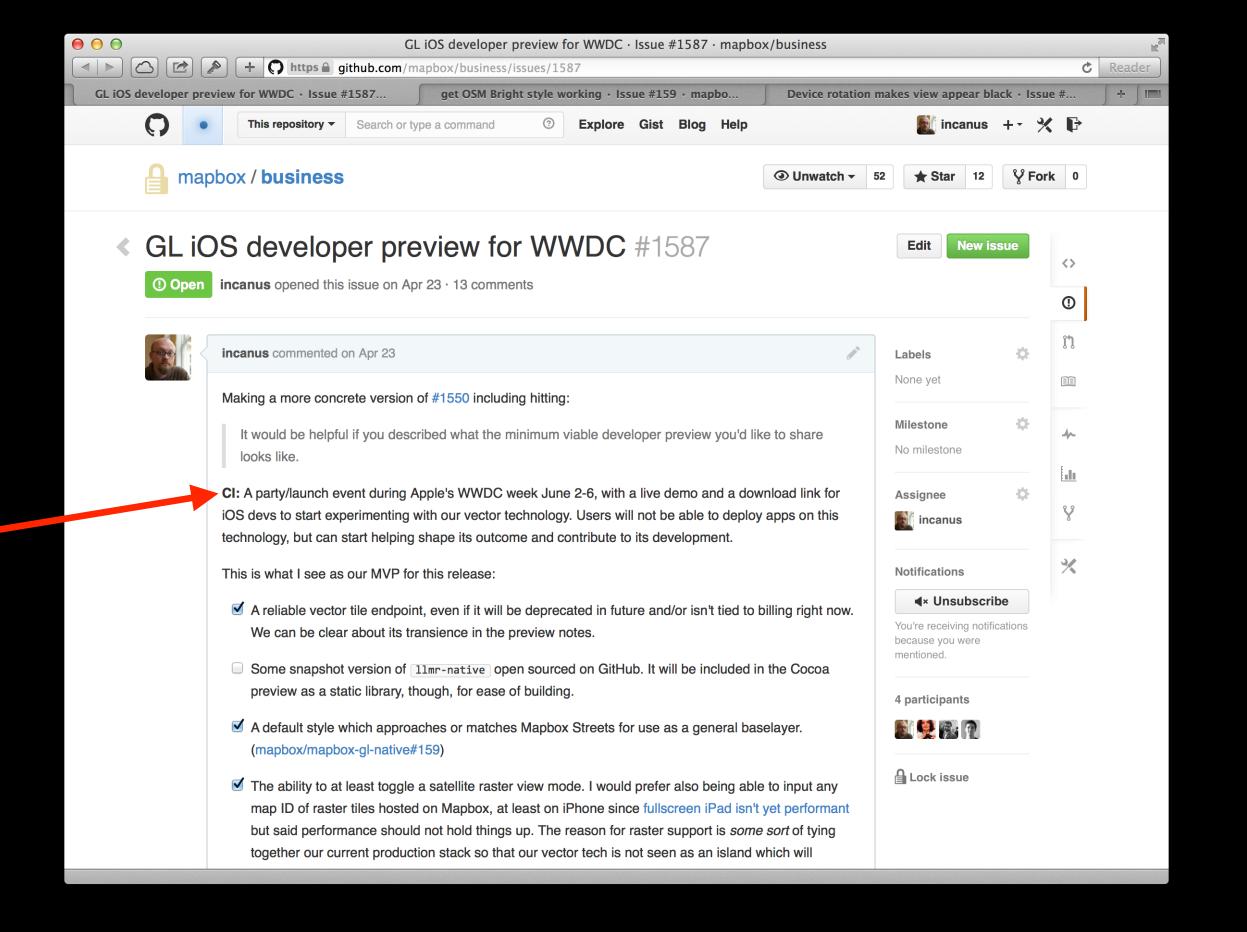
- Get an idea
- Search & see what other relevant bits are already in the works
- Hack up a prototype
- Post a "devlog" about it
- Iterate with teammates

## #6: Assembly Required

- Self-assemble based on interests & availability
- Justify your use of time to your team
- Excite your coworkers

#### Commander's Intent

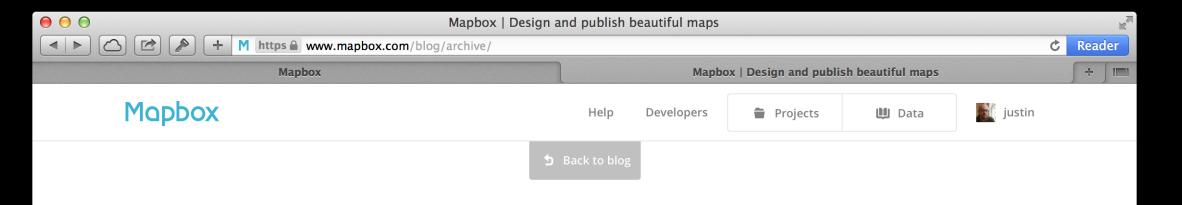
- Defines end goal of the task or project
- Leaves it up to the team how to get there
- D-Day: scattered individuals with common goals



#### #7: Use the Comms

- Blog like mad
- "Devlogs" → blog posts
- Use appropriate social media

# We Blog a Lot



#### Blog archive

Subscribe



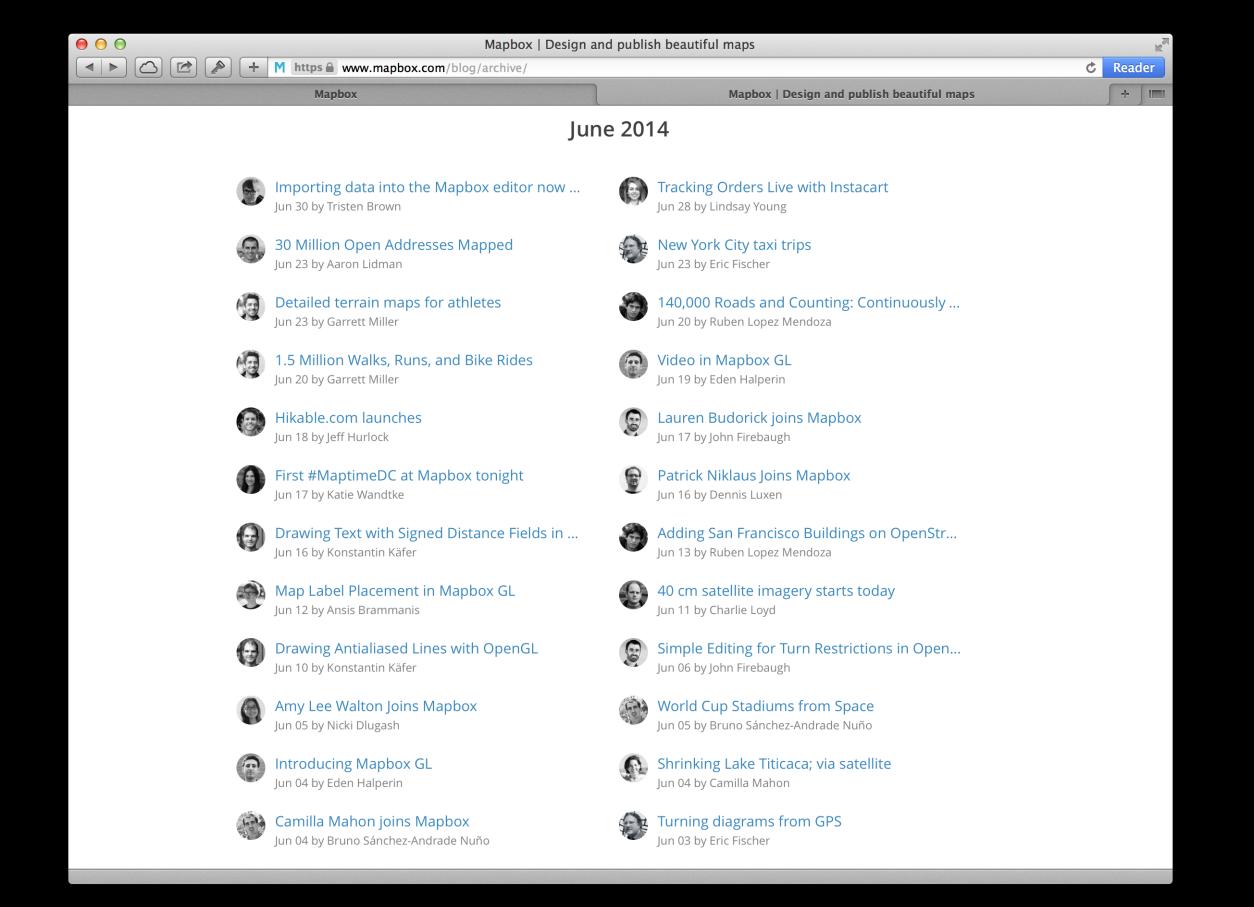
#### June 2014





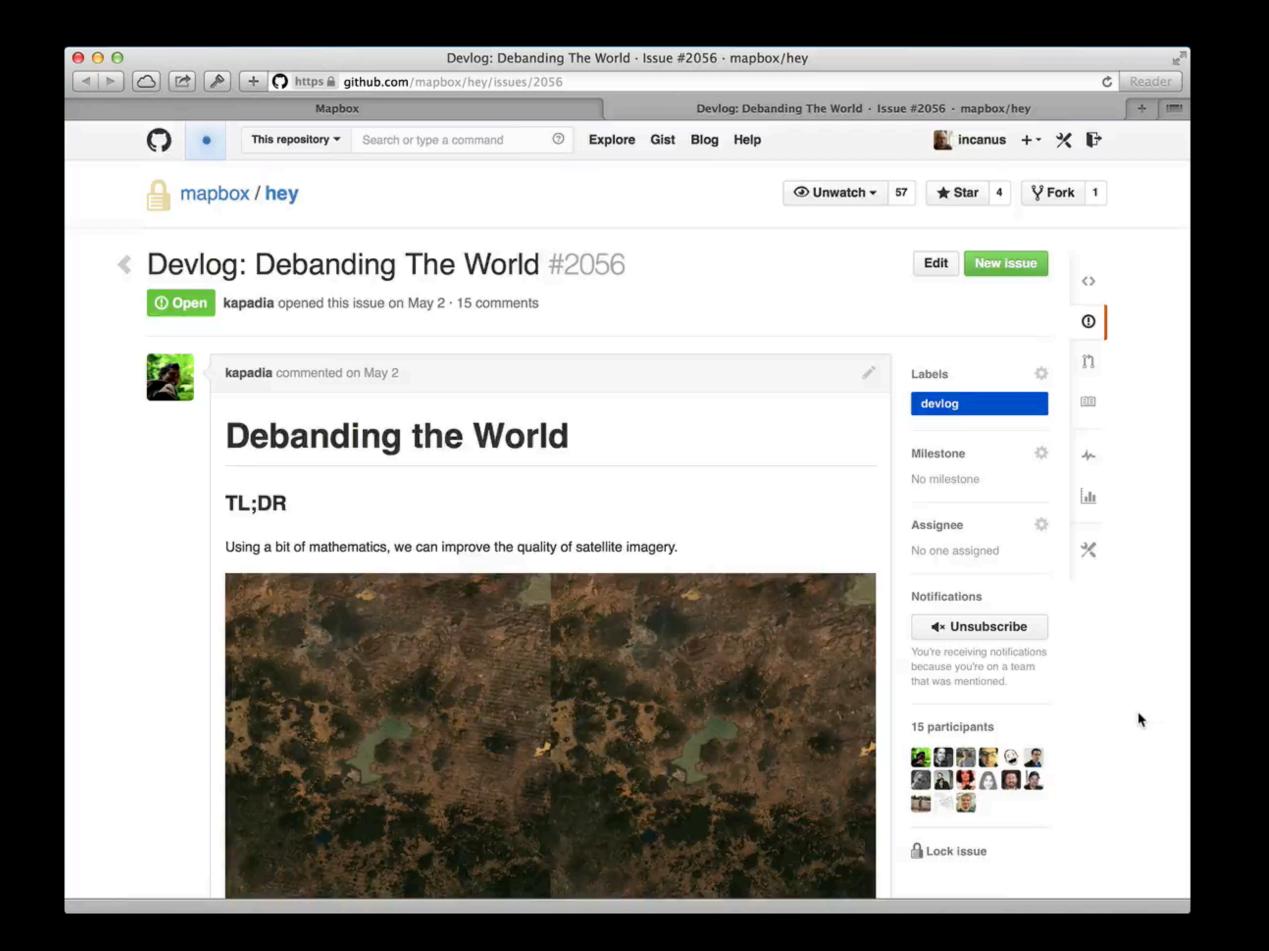


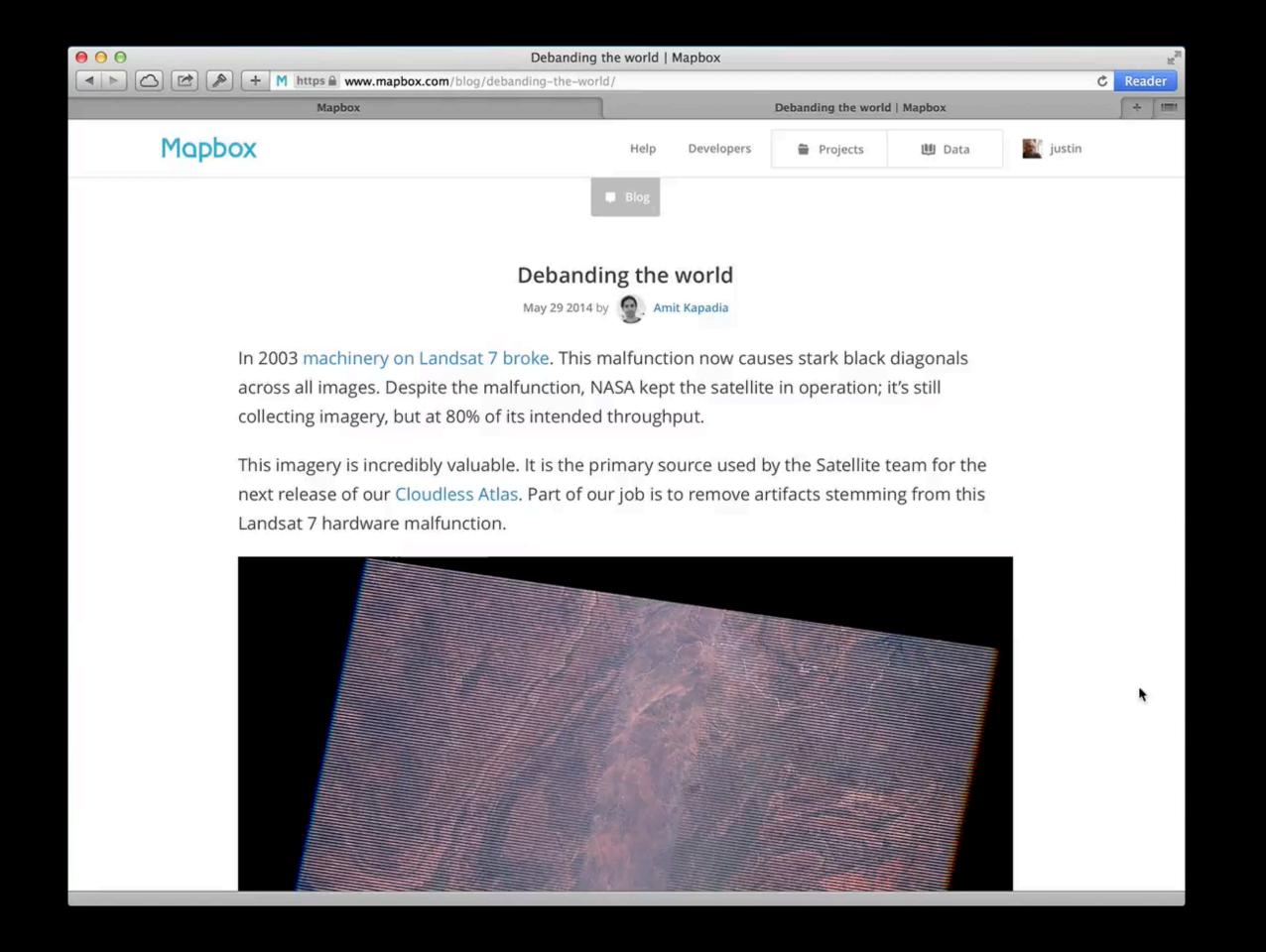


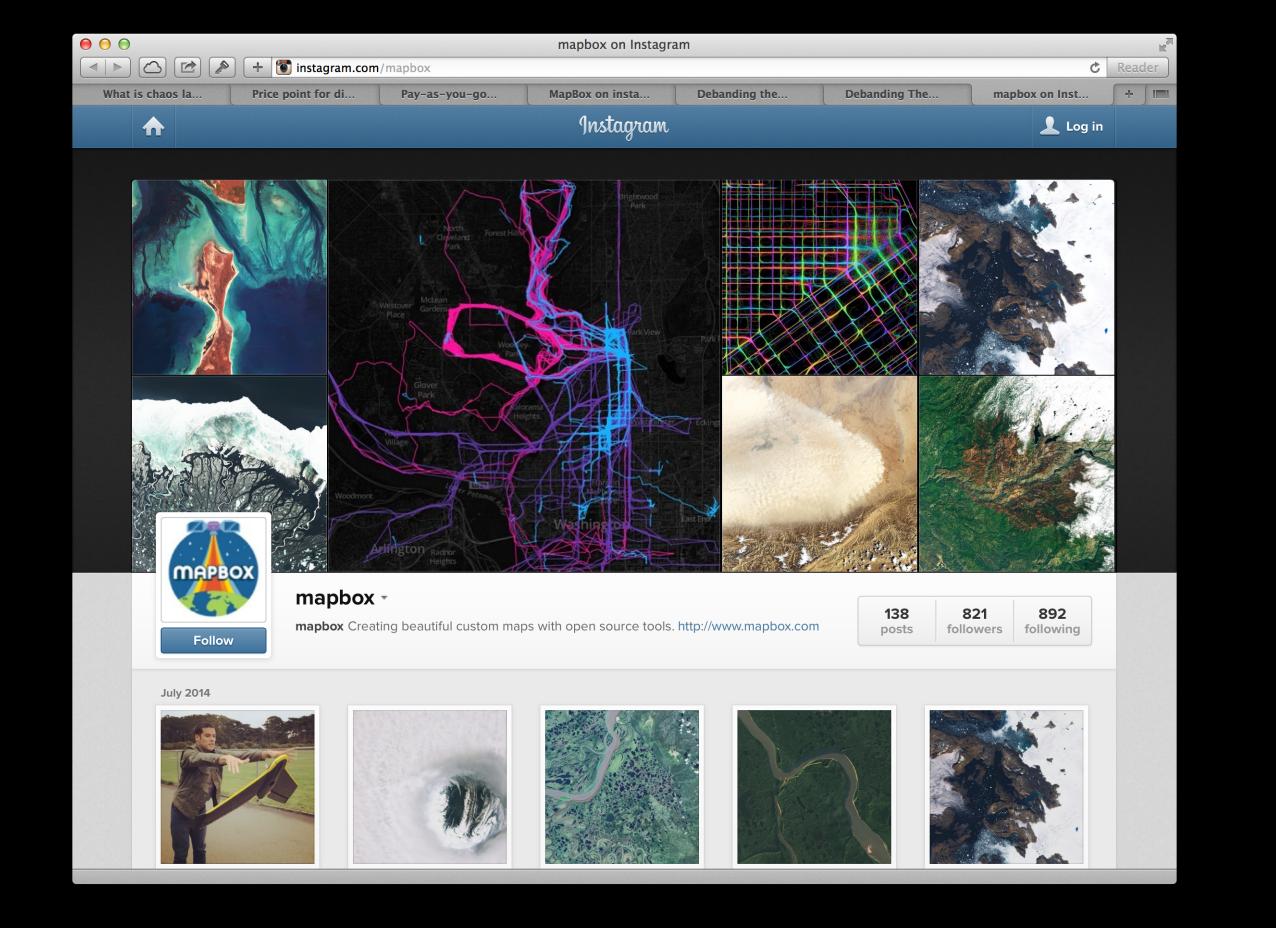


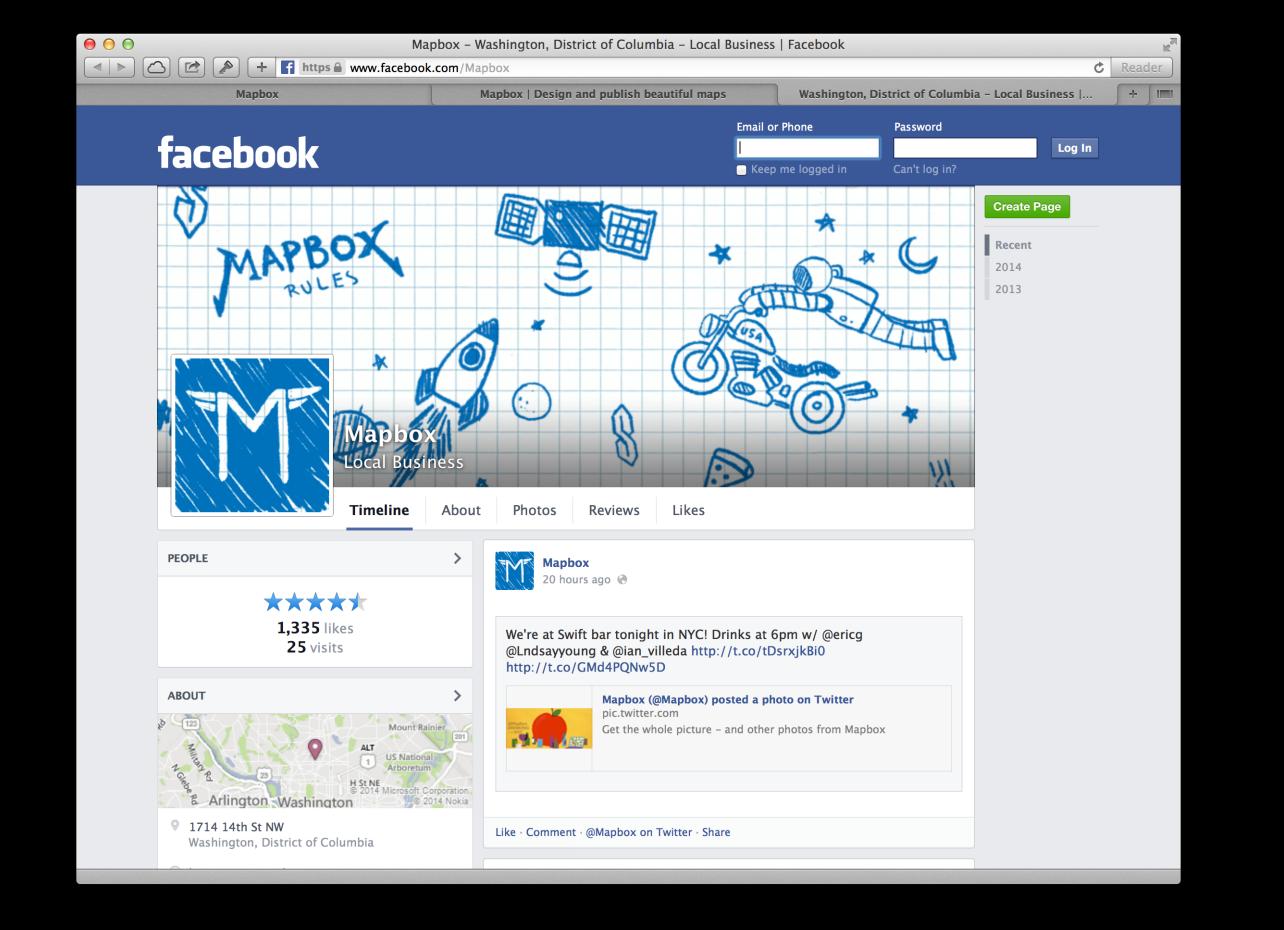
```
\$ for month in `ls 2014-* | \
    awk -F '-' '{ print $2 }' | \
    uniq`; \
  do
    echo -n "$month: "; \
    ls 2014-\$month-* | \
    WC -1; \setminus
  done
01:
           28
02:
          16
03:
          24
04:
           26
05:
           13
06:
          24
07:
           10
```

```
$ for year in `ls * | \
   awk -F '-' '{ print $1 }' | \
   uniq; \
   do \
     echo -n "$year: "; \
     ls $year-* | \
     WC - 1;
   done
         59
2011:
2012: 156
2013: 258
2014: 141
```









## 7 Concepts Review

- Public By Default
- Decisions Make Leaders
- Live in Your Tools

- Lose the Repetition
- R&D at the Fringe
- Assembly Required
- Use the Comms

#### Thank You

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