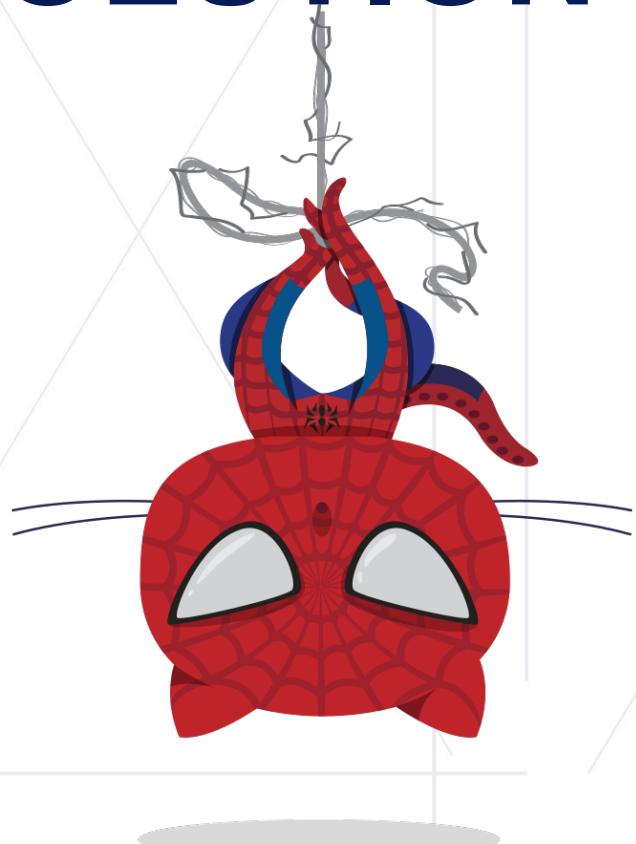


GITHUB IS A SOLUTION

TO COMMON PROBLEMS



WHAT COULD BE



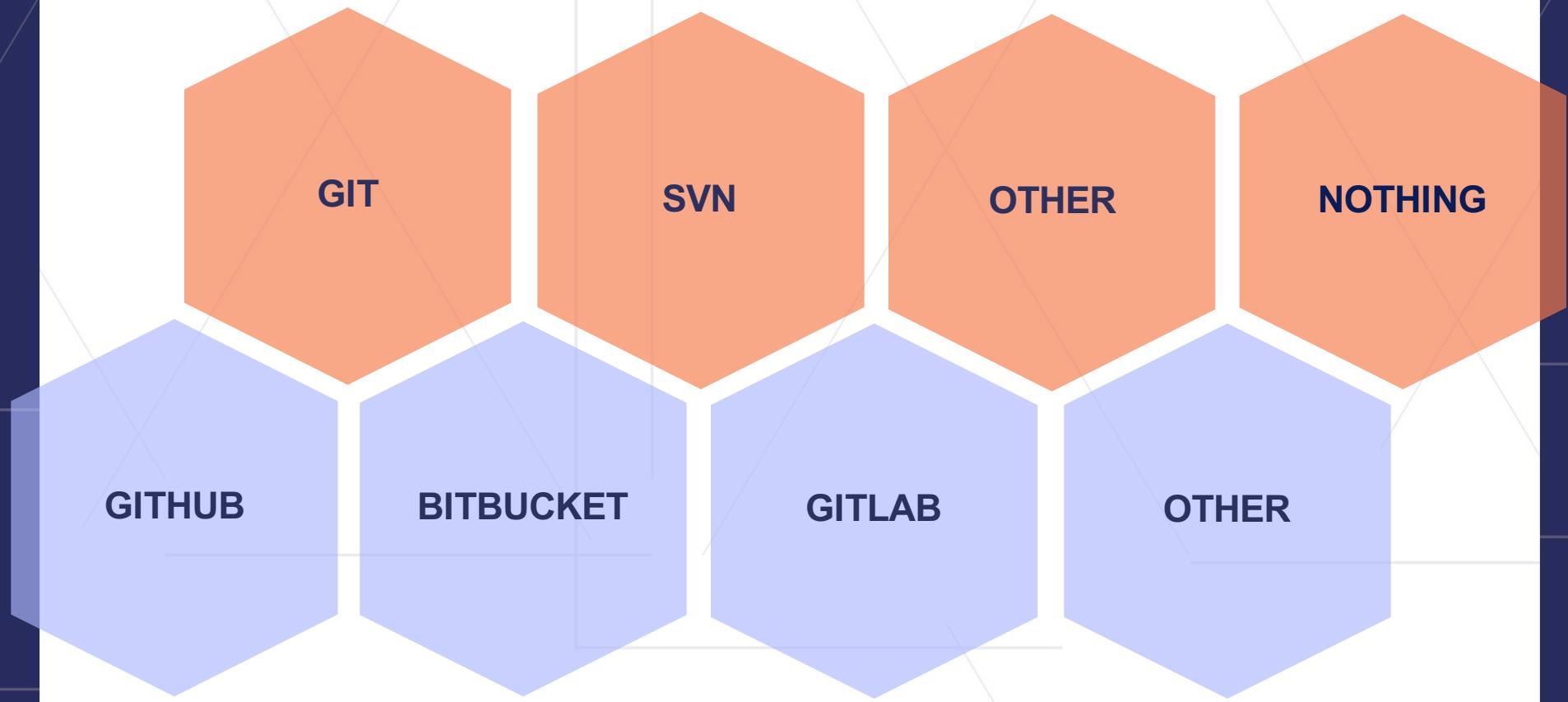
WHAT IS

THE PROBLEMS



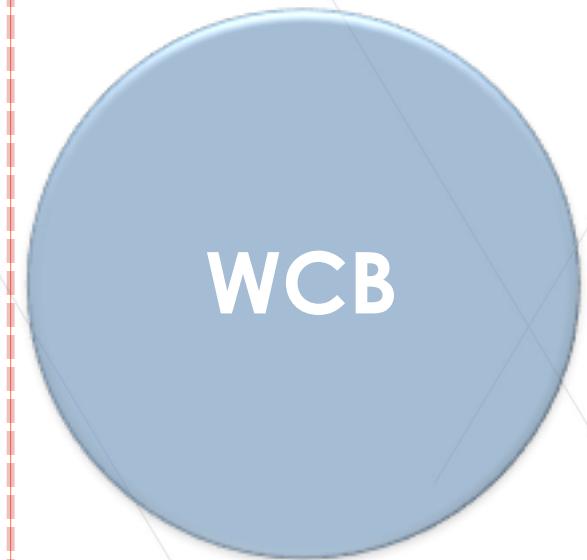
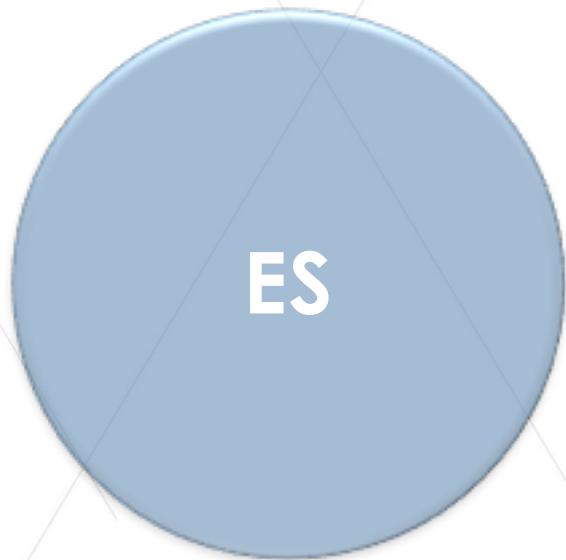
WHAT IS

FRAGMENTATION



- problem

BARRIERS



- problem

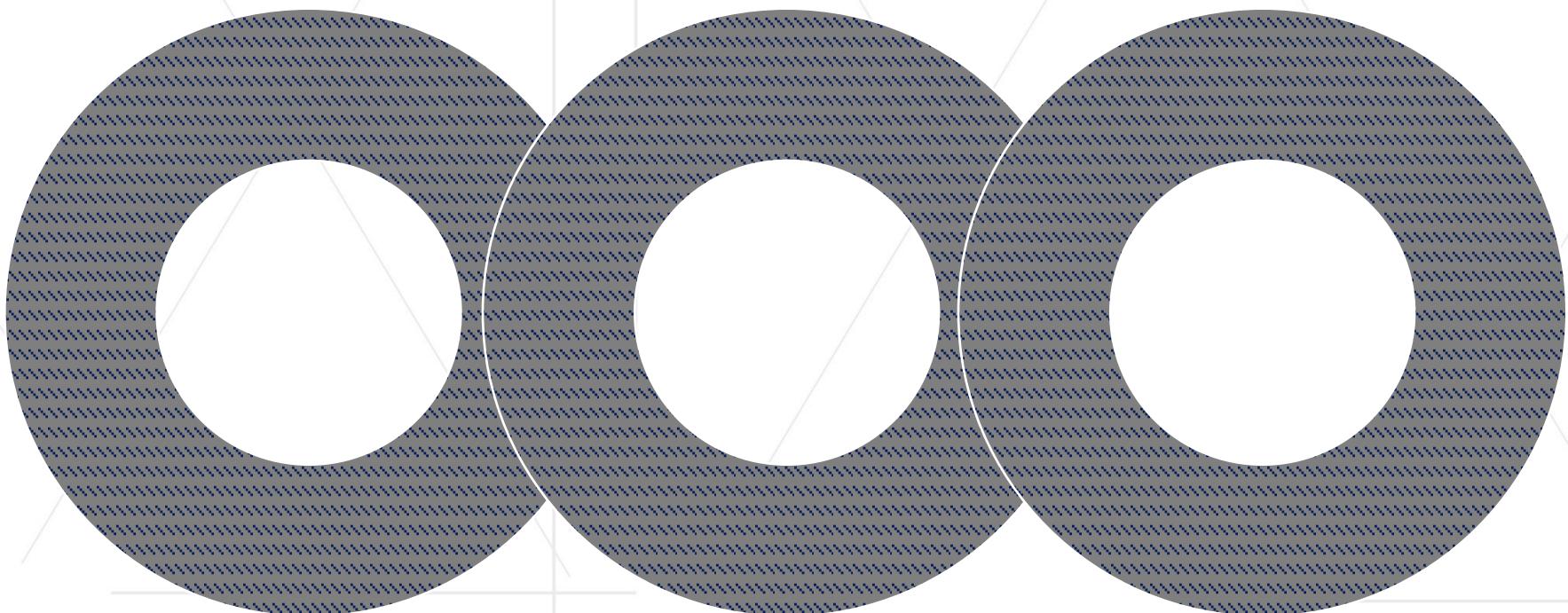
COLLABORATION



Collaboration is hard to find!

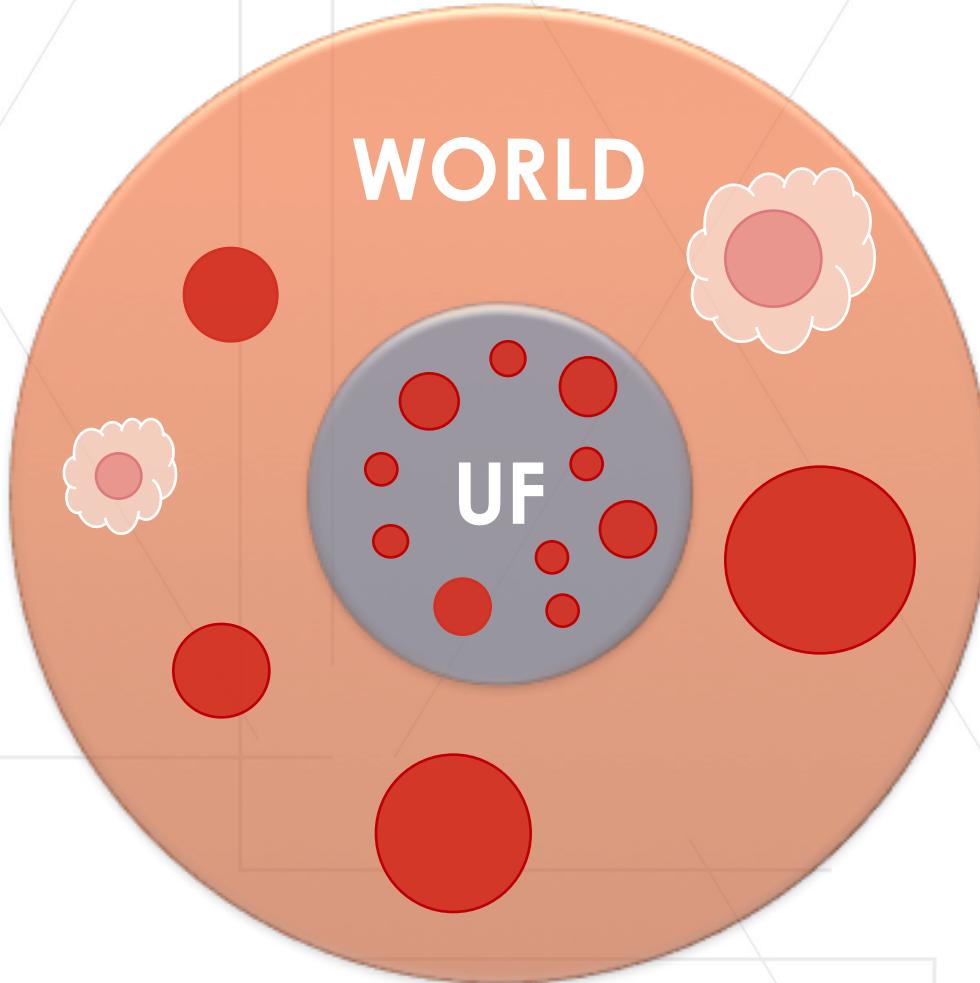
- problem

REINVENTING THE WHEEL



- problem

RISK

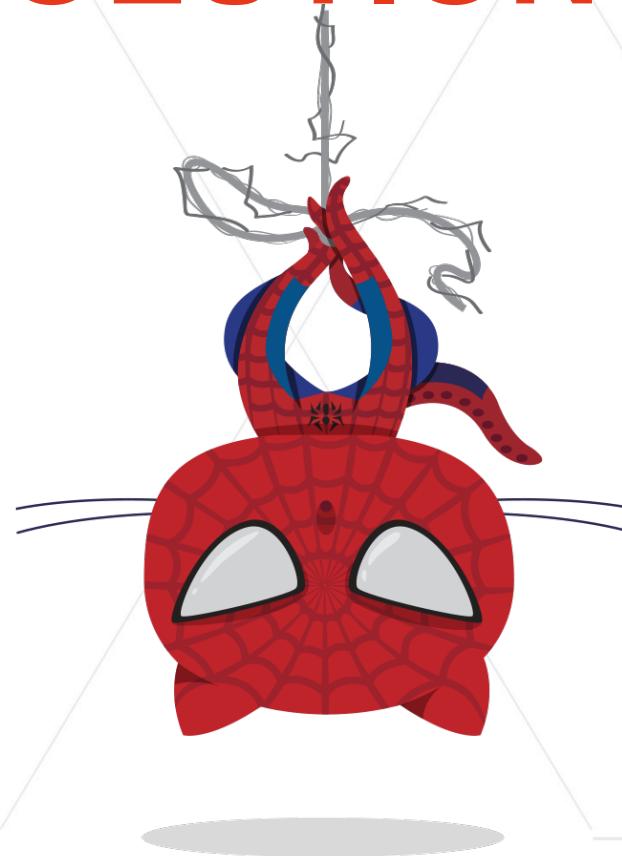


LEGEND
SERVERS
CODE
PASSWORDS



- problem

THE SOLUTION



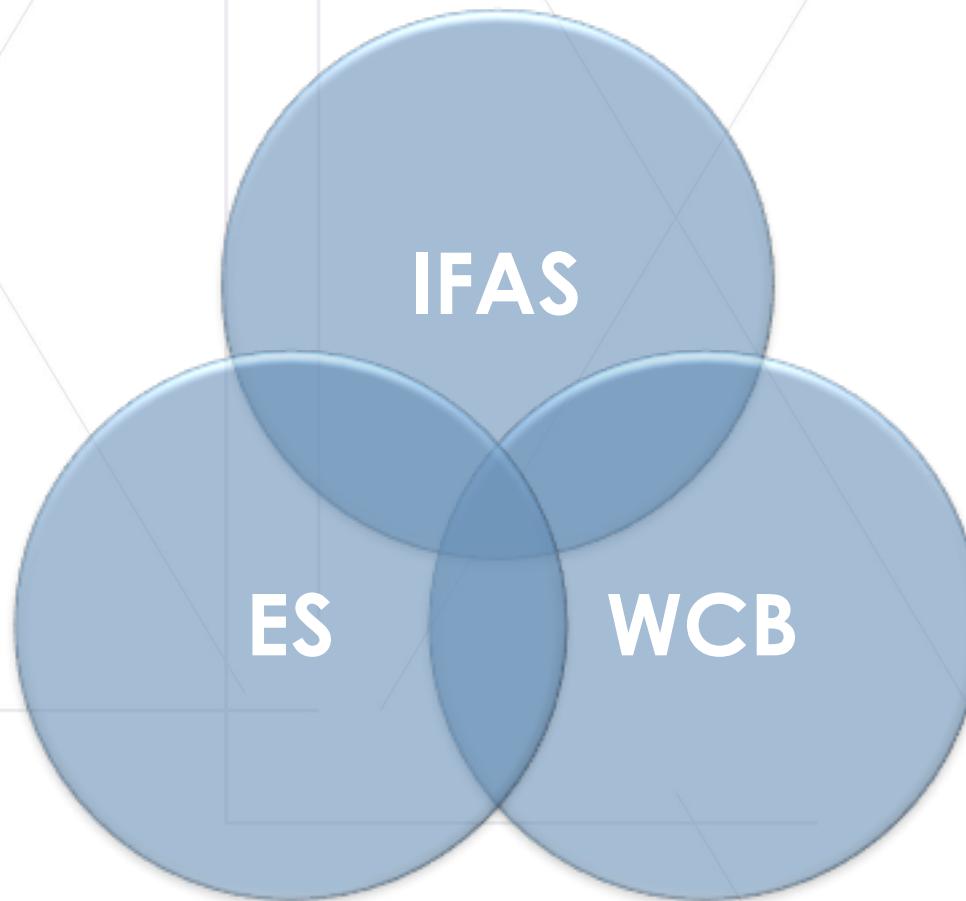
WHAT COULD BE

FRAGMENTATION ↓



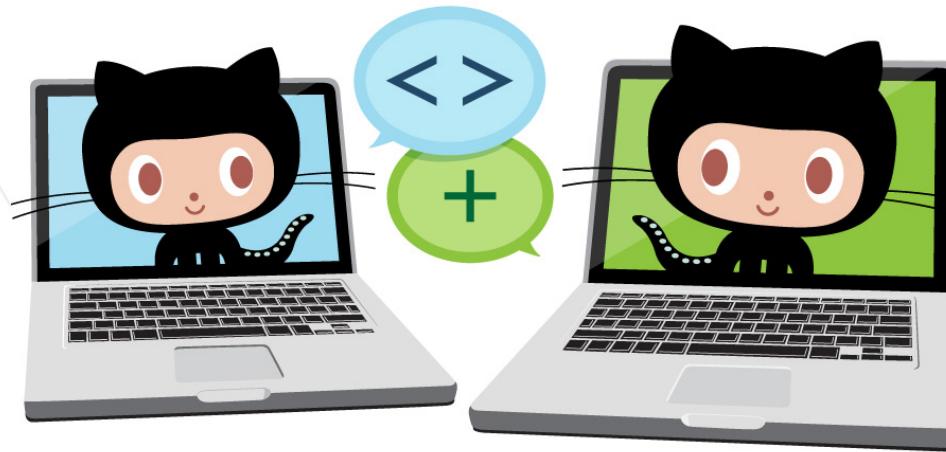
- solution

BARRIERS ↓



- solution

COLLABORATION ↑



SHARE / REUSE

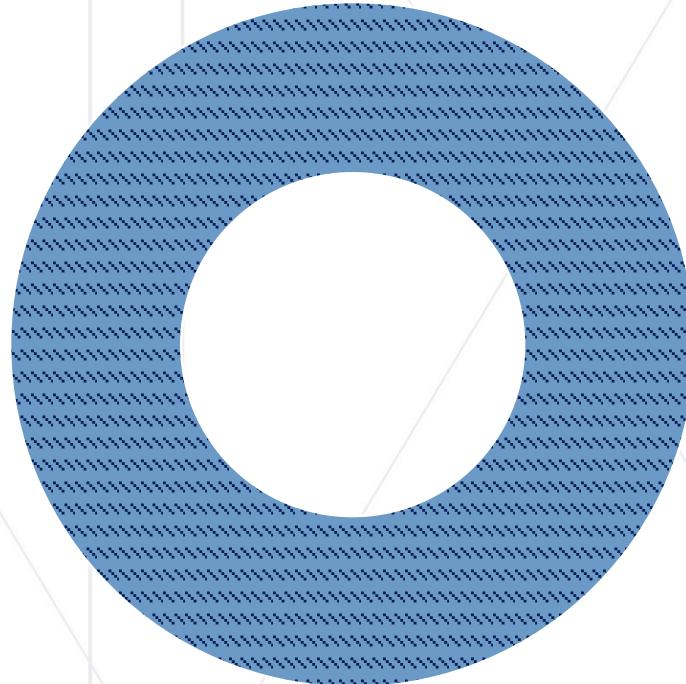
CONTRIBUTE

HELP

GET HELP

- solution

REINVENTING THE WHEEL ↓



Solve a problem. Share it.

- solution

RISK ↓

WORLD

UF

LEGEND

SERVERS

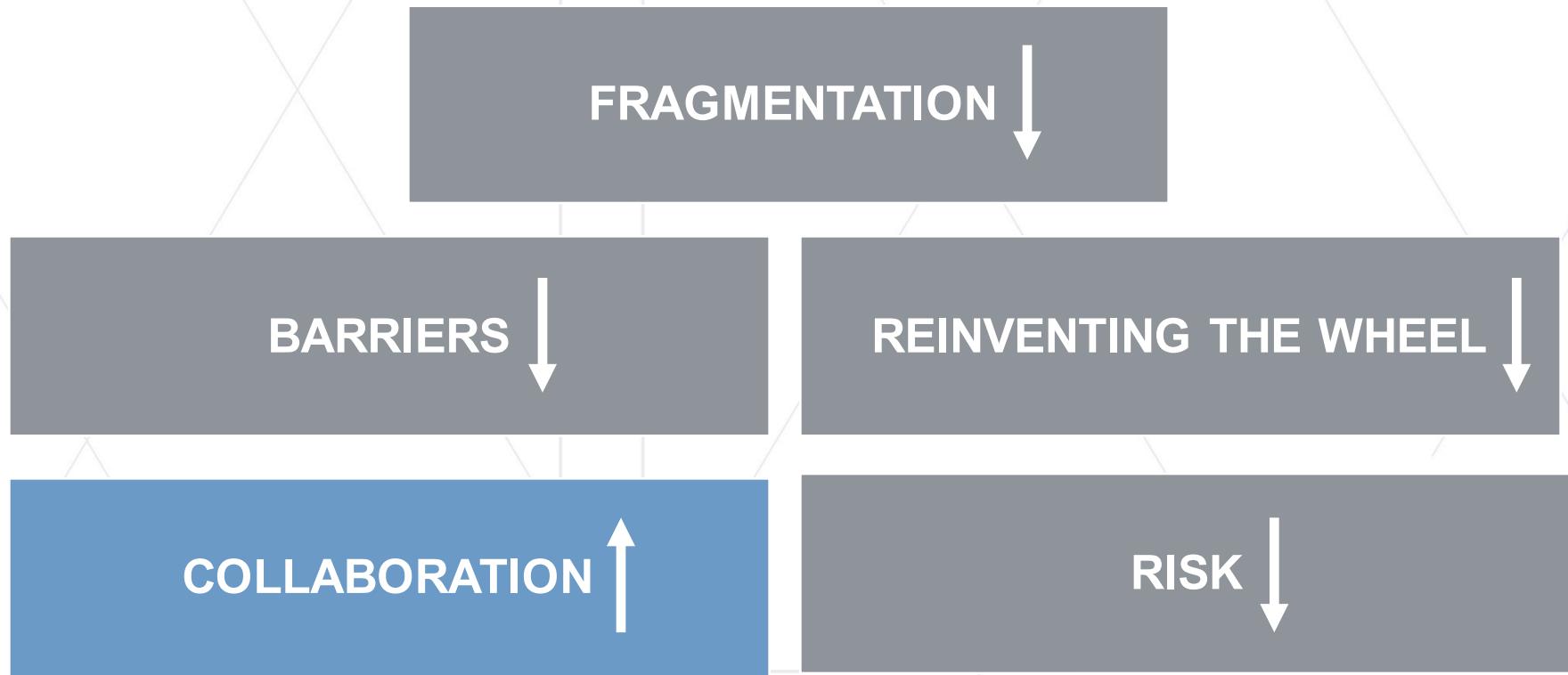
CODE



UF

- solution

IN REVIEW

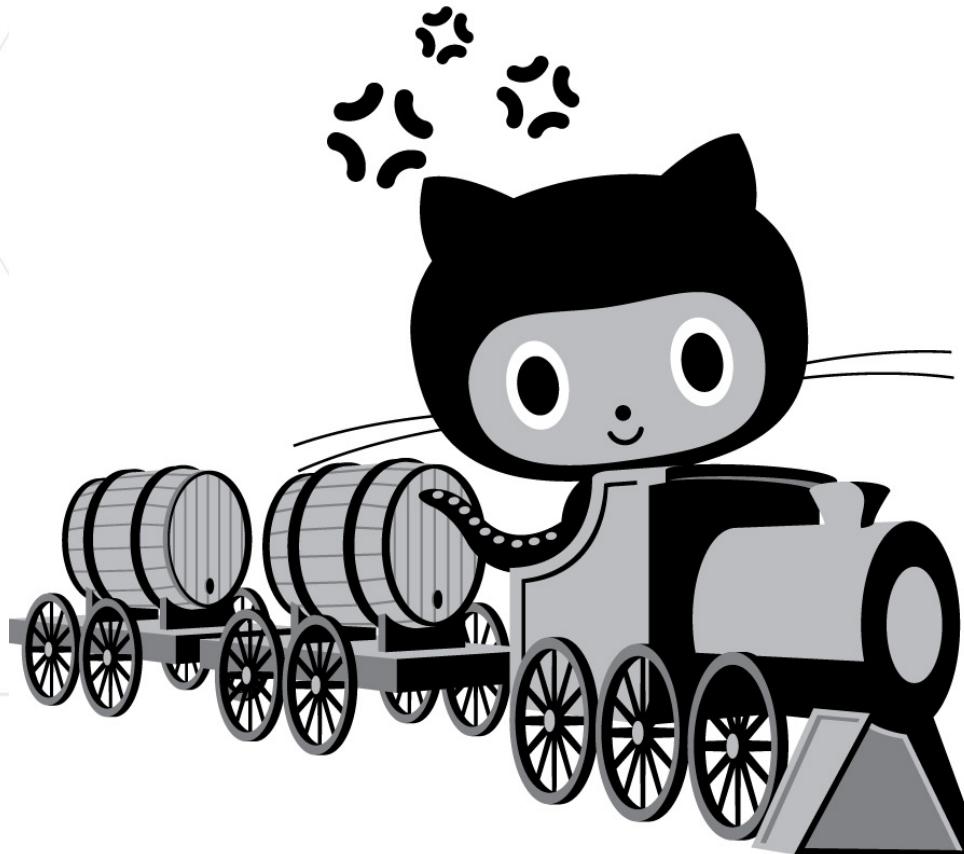


TAKE HOME



What could be outshines what is!

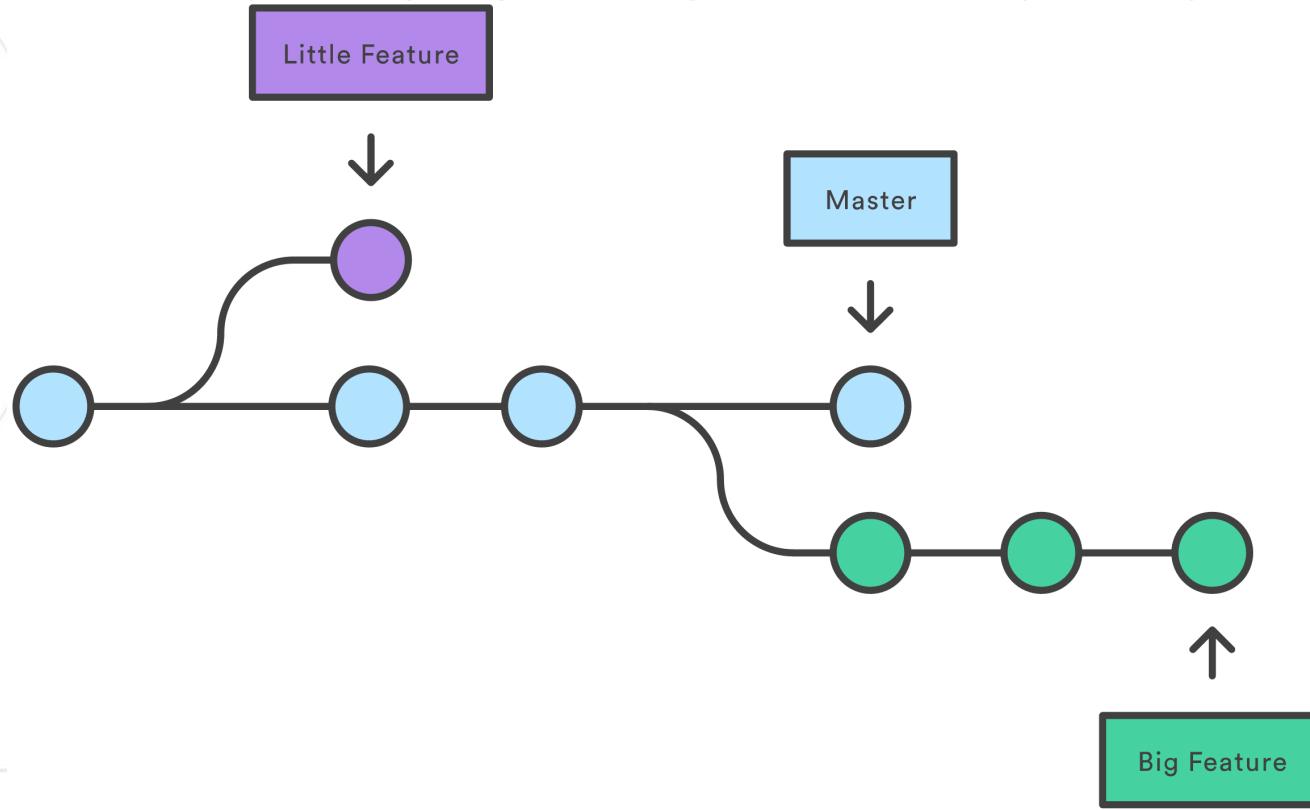
NOW LET'S GO ON A JOURNEY



TO LEARN ALL ABOUT GIT AND GITHUB

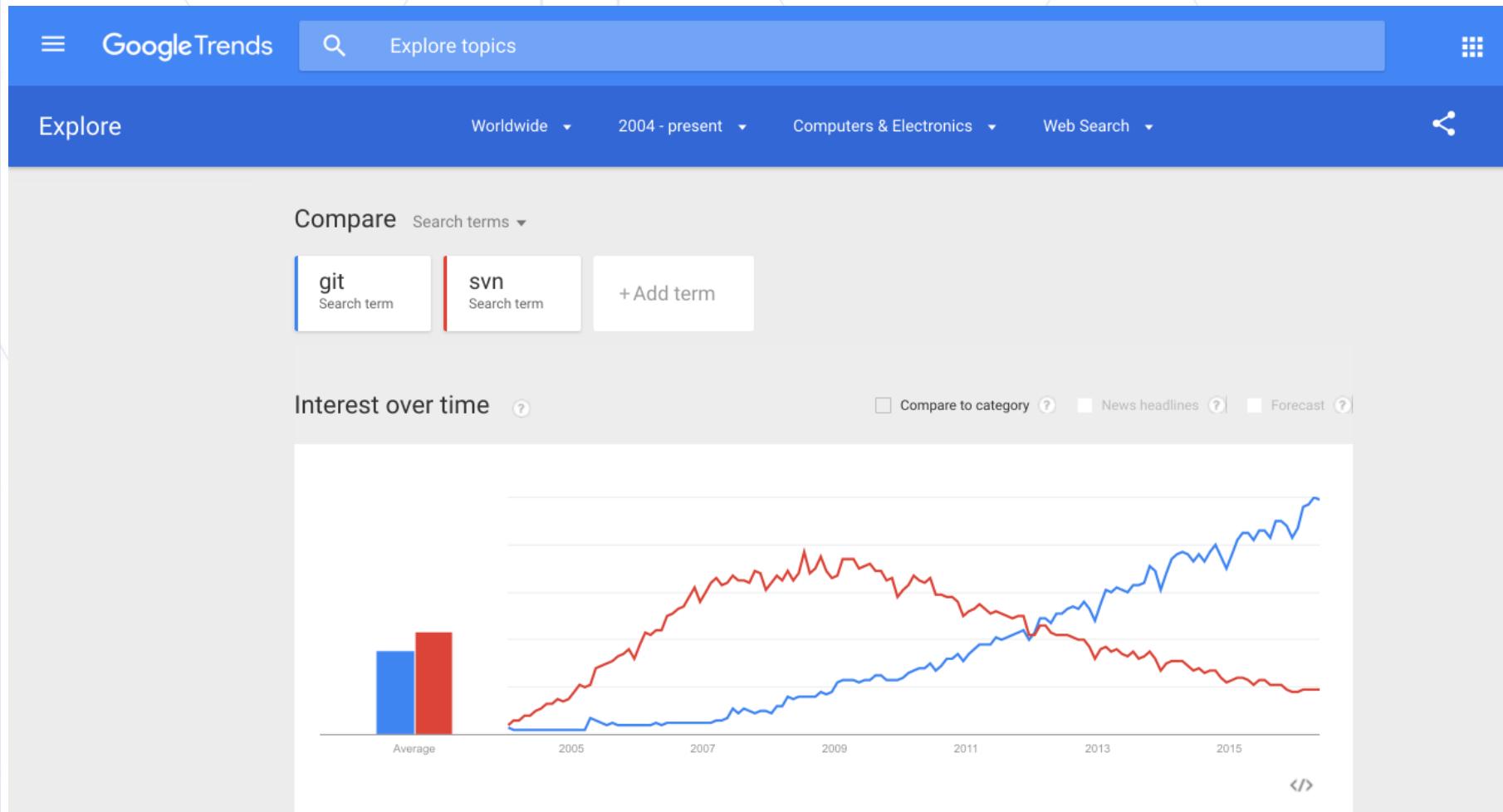


WHAT IS GIT?



Snapshots of code changes over time that can
be undone or revisited

A SMART CHOICE



4 REASONS FOR GIT

01

Multiple people

03

Time travel

02

Modularity

04

Work offline

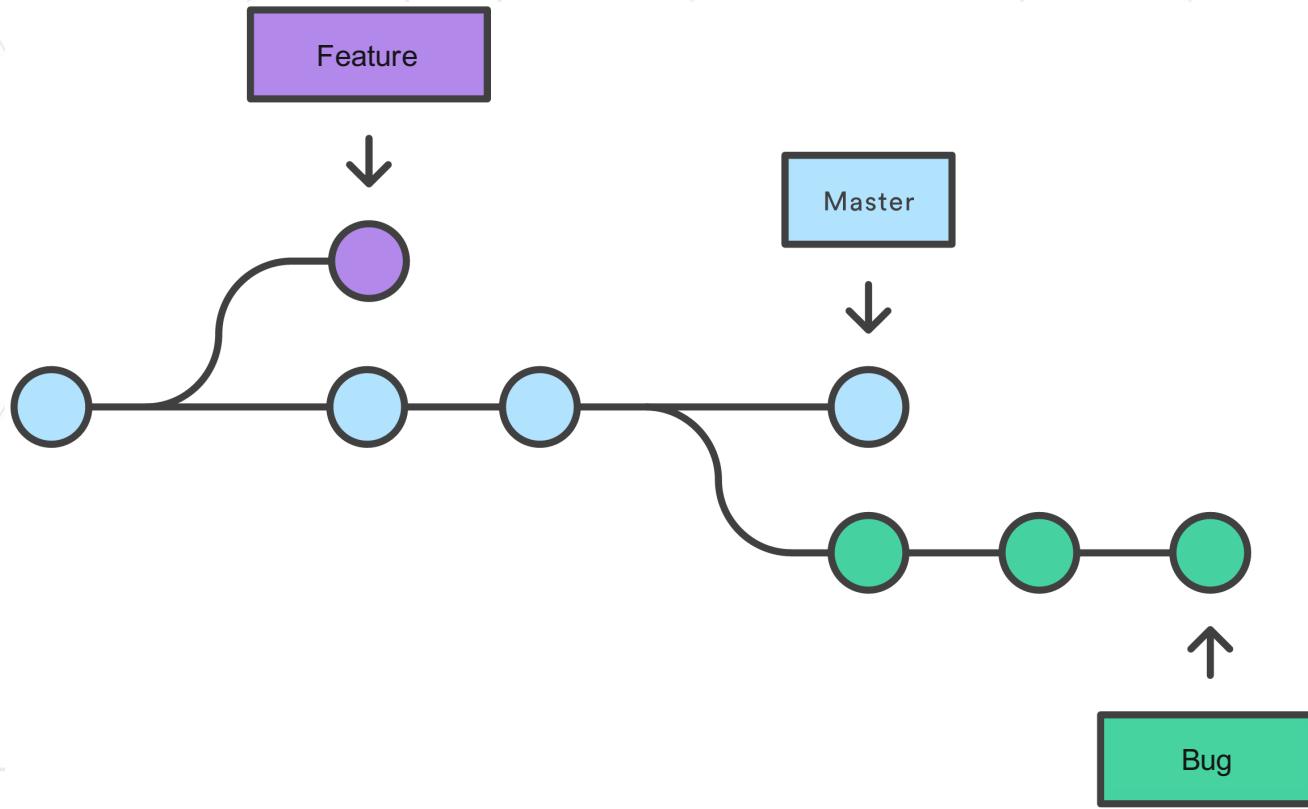
MULTIPLE PEOPLE



MULTIPLE PEOPLE

- Multiple people can work on the same file at the same time without destroying each others work
- Leads to greater productivity (more people), and quality (more eyes)

MODULARITY/BRANCHES



Master is always deployable...

MODULARITY/BRANCHES

- Makes it less likely unfinished work will accidentally mix-in with production code
- Prevents us from having things like index1.html, index2.html, index3.html, etc.
- Leads to greater productivity and quality

MODULARITY/BRANCHES

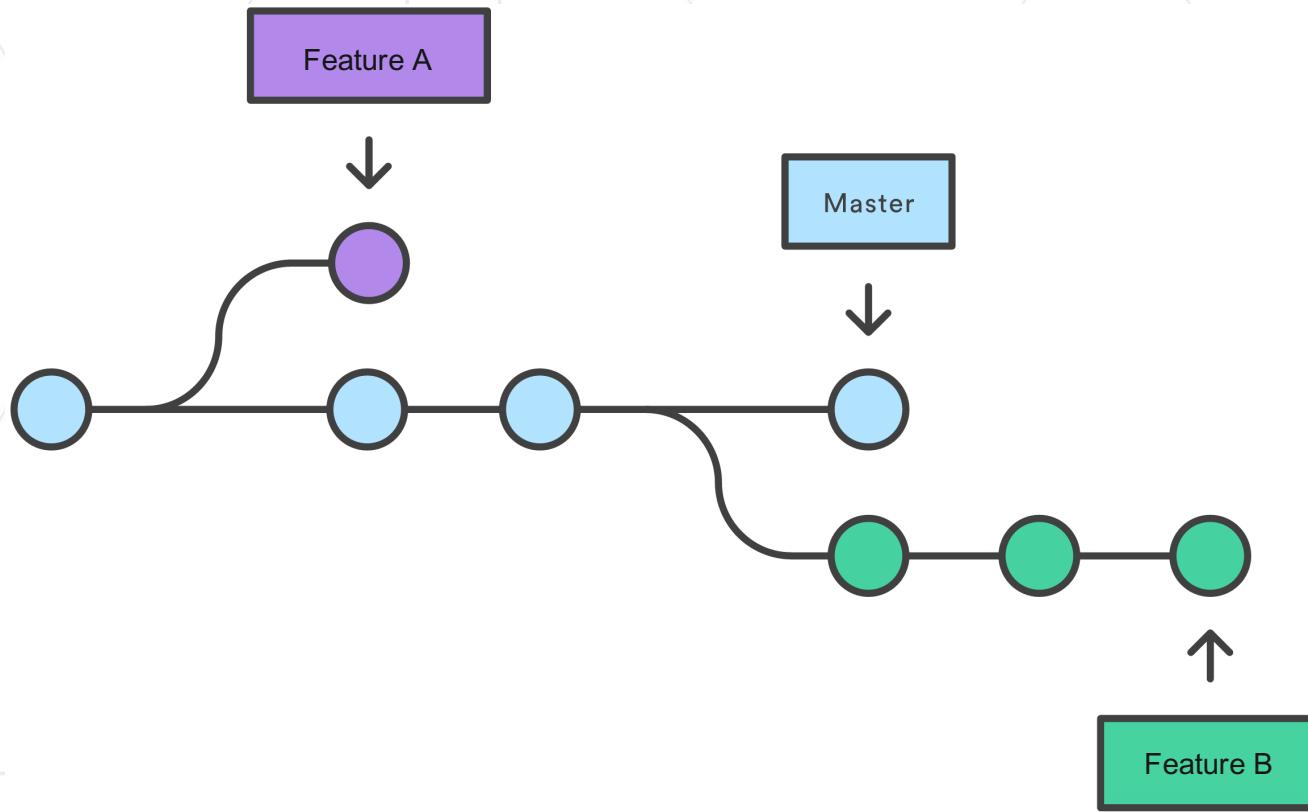
FEATURES

EXPERIMENTS

BUGS

FEATURES

MODULARITY



Master is always deployable...

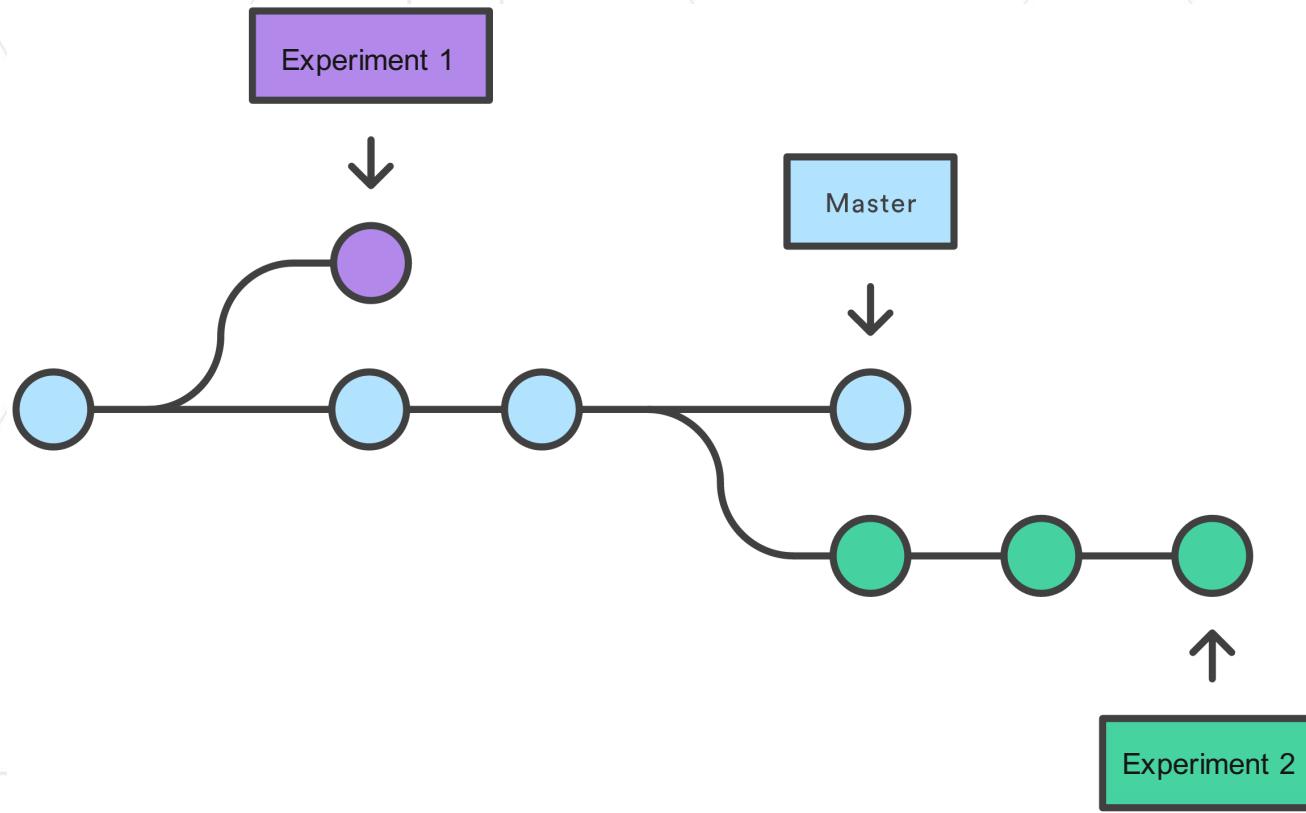
FEATURES

MODULARITY

- Break problems into manageable features
- Easily switch between features
- Feature A is no longer desired; Delete it
- Feature B is impossible or a disaster;
Delete it

EXPERIMENTS

MODULARITY



Master is always deployable...

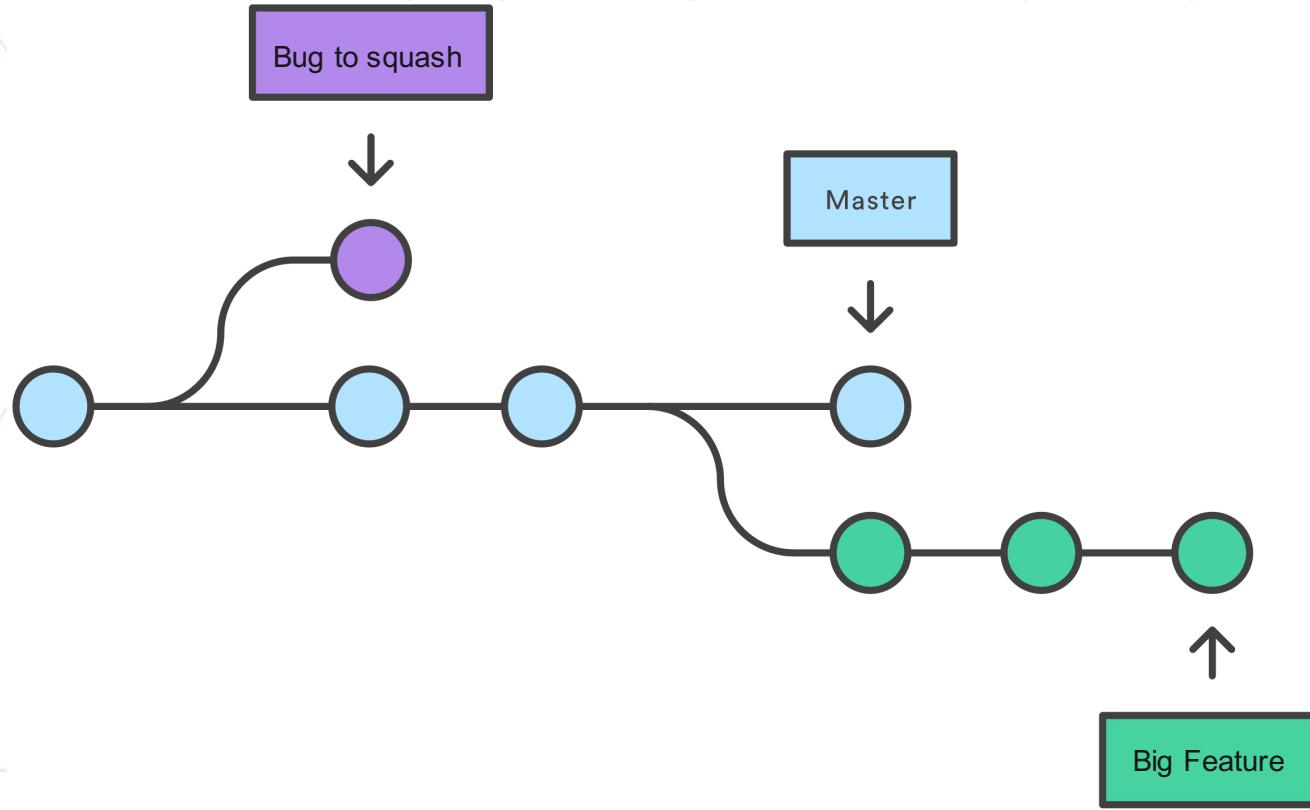
EXPERIMENTS

MODULARITY

- Test any idea without fear of compromising your project
- Try multiple approaches to the same problem and keep the best

BUGS

MODULARITY



Master is always deployable...

BUGS

MODULARITY

- You can squash a bug with multiple features or experiments in development

TIME TRAVEL



TIME TRAVEL

Update from gh-pages View Branch Sync

gh-pages ▾ page-load-animations

Merge pull request #40 from... 2 Merge pull request #33 from adriangritz/page-load-animations

Added page load animations

adriangritz 4751c76 1 month ago ⚙

index.html

```
@@ -27,14 +27,14 @@
27 27 </head>
28 28
29 29 <body>
30 - <div class="hero-wrap">
30 + <div class="hero-wrap animated fadeIn">
31 31     
32 32     <h1 class="m-t-25 display-4">GIT SMARTER</h1>
33 33     <div class="tagline">Resources for Git & Github!</div>
34 34     <a href="#" class="btn btn-primary btn-lg">P2P SLIDES <i class="zmdi zmdi-slideshow zmdi-hc-1x"></i></a>
35 35 </div>
36 36 <div class="git-top-tier-resources">
37 - <div class="container">
37 + <div class="container animated fadeIn">
38 38     <div class="row">
39 39         <div class="col-md-3 text-xs-center">
40 40             <i class="zmdi zmdi-github zmdi-hc-5x c-dark-orange"></i>
...
@@ -108,7 +108,7 @@
108 108 </div>
109 109 <!-- /.git-tutorials-wrap -->
110 110 <div class="git-tutorials-wrap">
111 - <div class="container">
111 + <div class="container animated fadeIn">
112 112     <div class="row">
113 113         <div class="col-md-5">
114 114             <div class="item-wrap">
...
@@ -144,11 +144,11 @@
144 144 <div class="git-other-resources-wrap">
```

TIME TRAVEL

- Go back to any point in the history of development and review or restore code
- Remember what and why you did something in the past or in the present

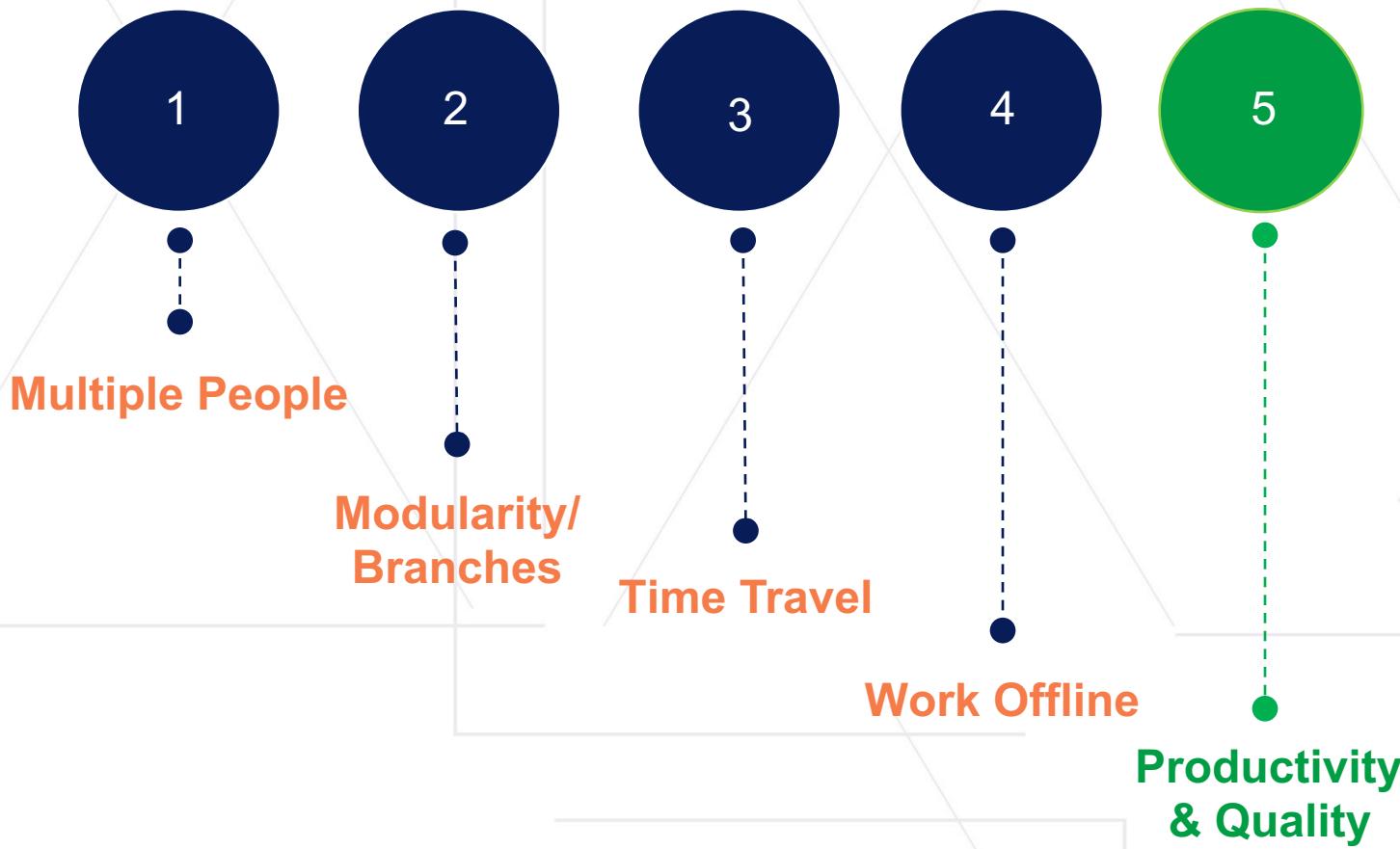
WORK OFFLINE



WORK OFFLINE

- On a plane, train, or automobile
- Anywhere you can take a computer
- Since Git is distributed you always have a backup of the entire history of your project

GIT IN REVIEW

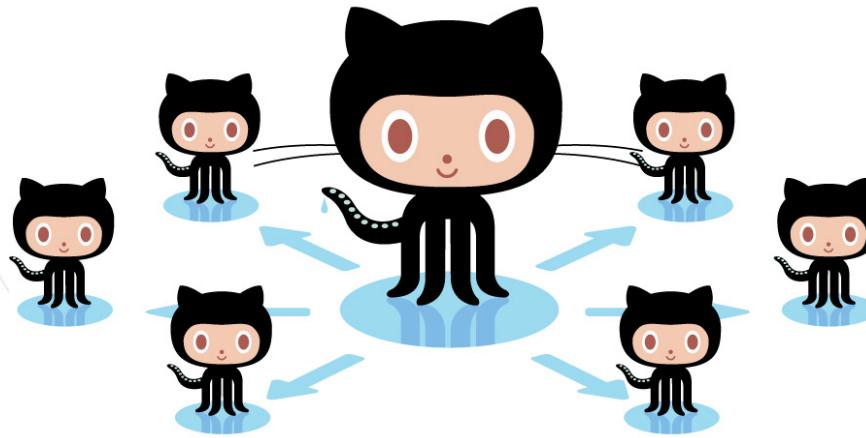


TAKE HOME PRODUCTIVITY ↑



QUALITY ↑

WHAT IS GITHUB?



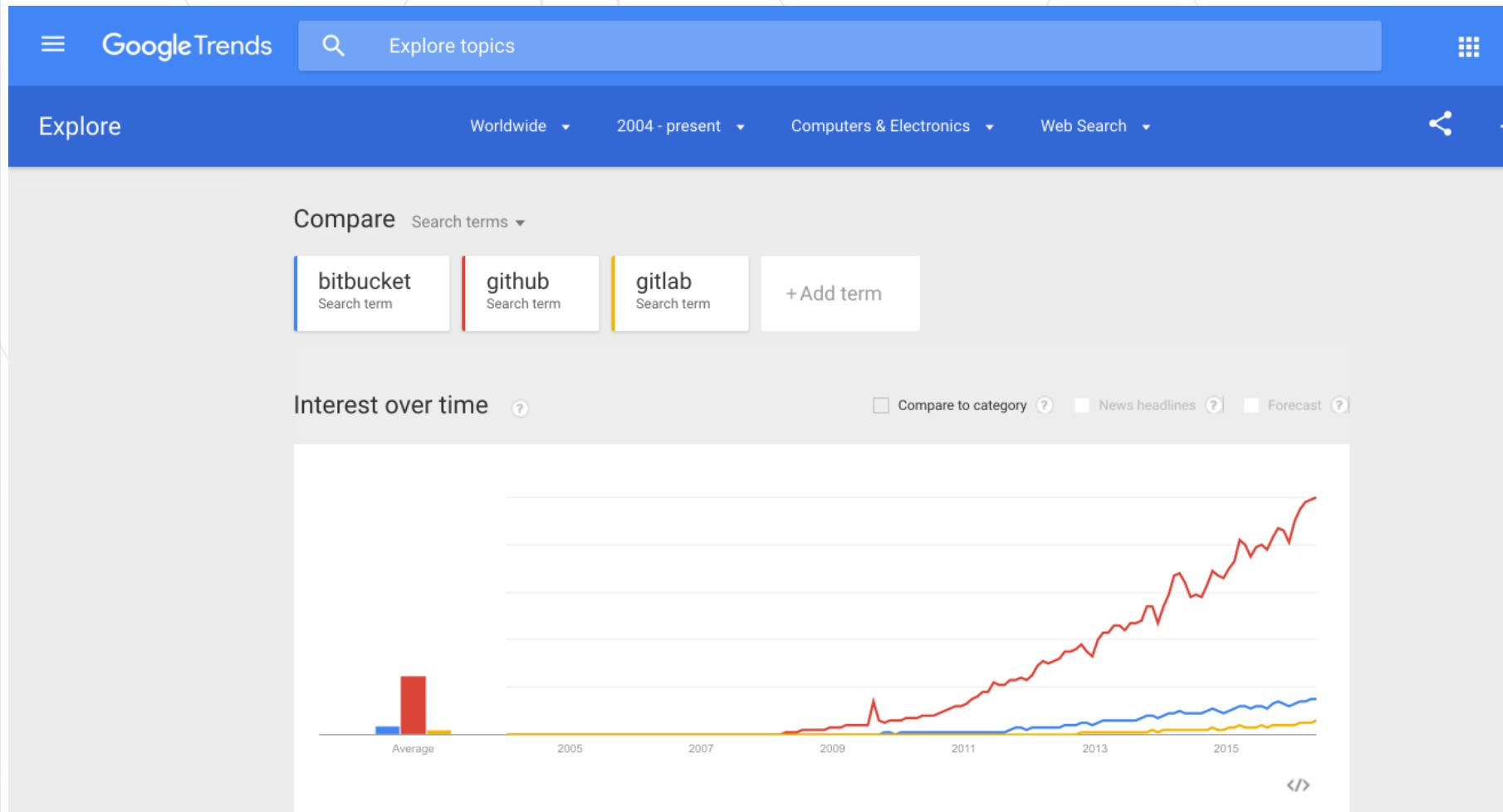
HOSTING (GIT SERVER)

COMMUNICATION (WEB INTERFACE)

ACCESS (READ, WRITE, ADMIN)

COLLABORATION (SHARE, REUSE)

A SMART CHOICE



USED BY

GOOGLE

MICROSOFT

APPLE

US GOV

OPEN
SOURCE

ALSO USED BY

MIT

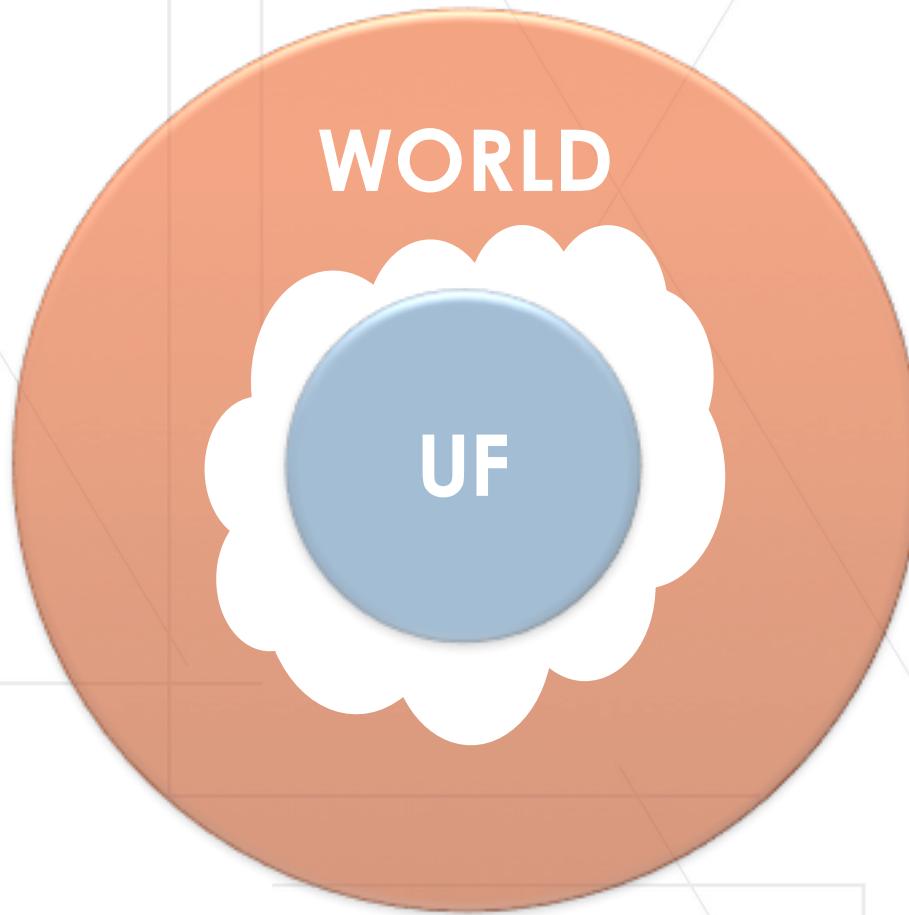
UNIVERSITY
OF
MINNESOTA

YALE

NCSU

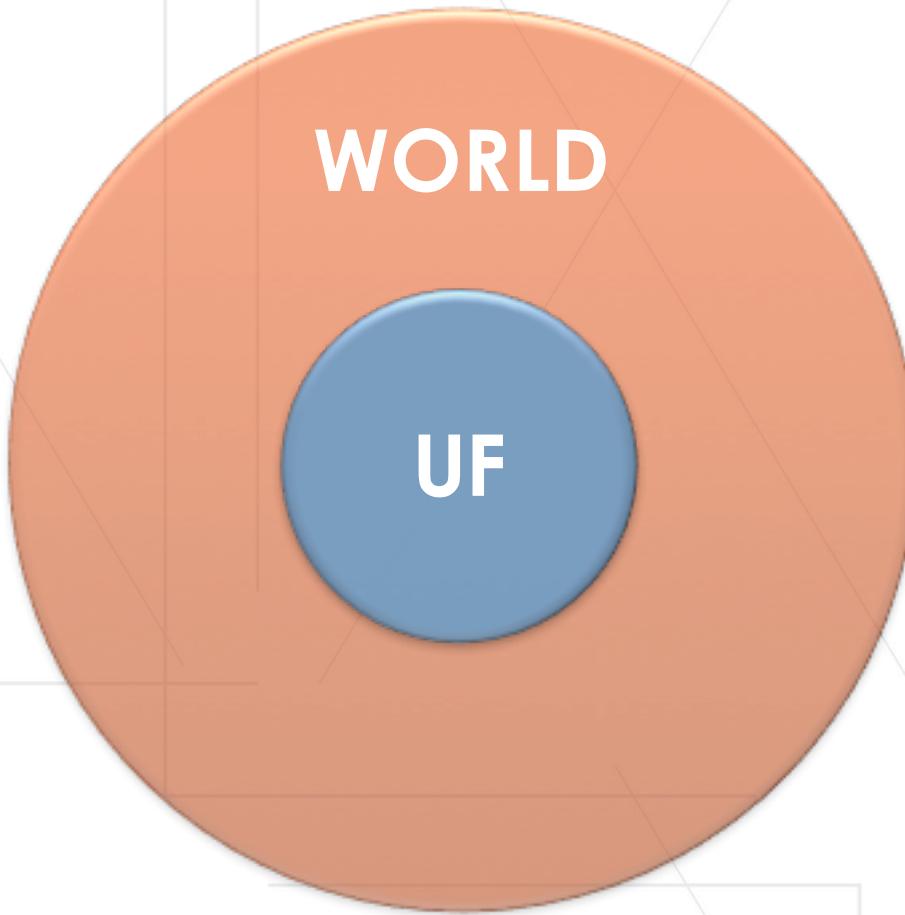
PRINCETON

GITHUB



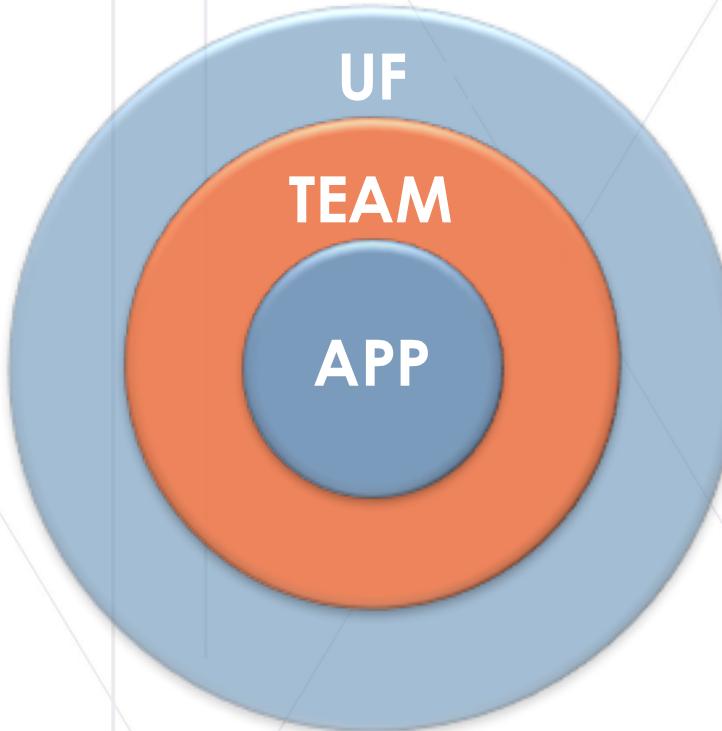
- in the cloud

GITHUB



- on premise

PUBLIC / PRIVATE ACCESS

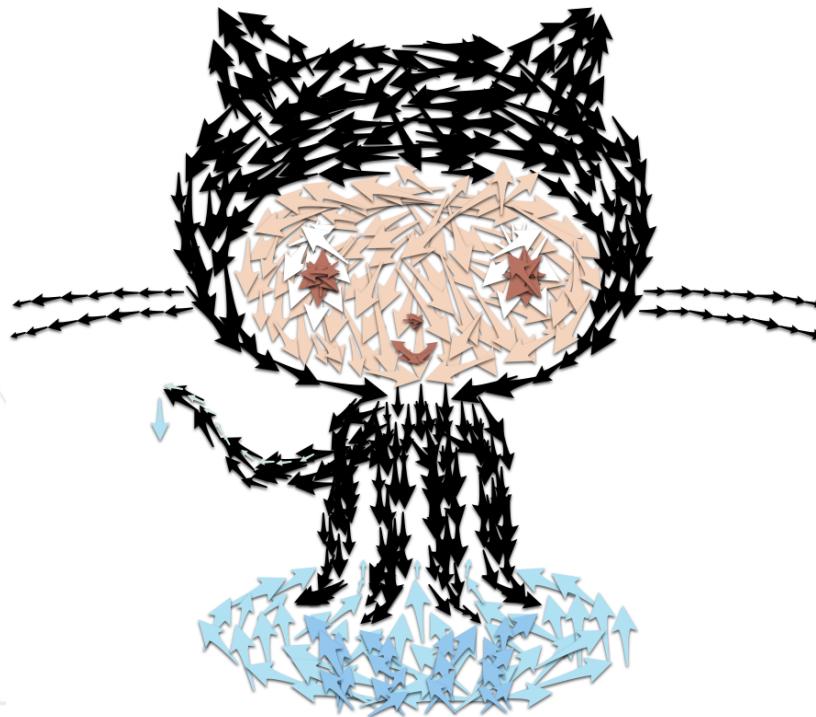


READ, WRITE, ADMIN

10 REASONS FOR GITHUB

-
- | | |
|----|-----------------|
| 01 | Fragmentation ↓ |
| 02 | Git hosting |
| 03 | Access |
| 04 | Web interface |
| 05 | Adoption ↑ |
| 06 | Productivity ↑ |
| 07 | Quality ↑ |
| 08 | Security ↑ |
| 09 | Communication ↑ |
| 10 | Collaboration ↑ |

FRAGMENTATION



Decreases ↓

FRAGMENTATION ↓

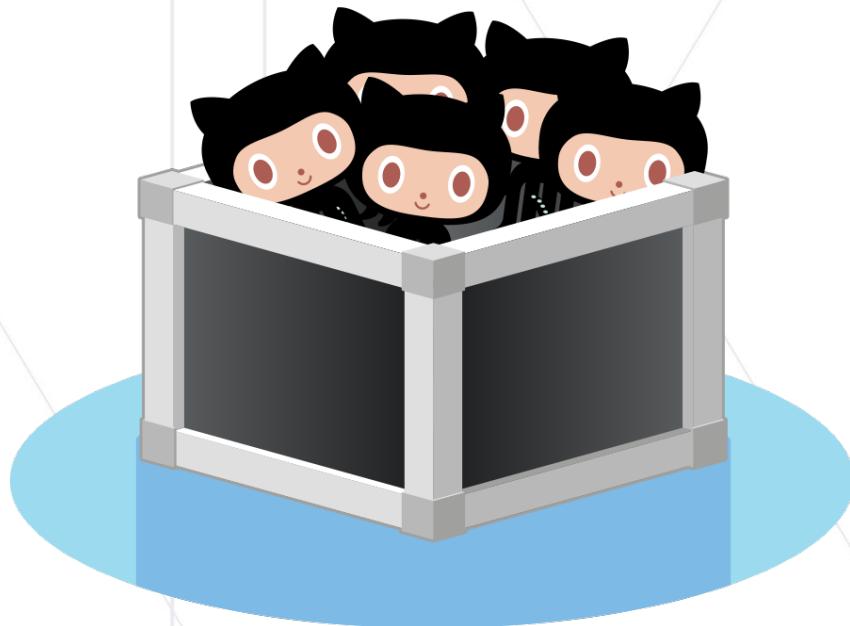
BARRIERS ↓

REINVENTING THE WHEEL ↓

COLLABORATION ↑

RISK ↓

GIT HOSTING



**Lowers barrier to adopting version control
skill wise**

ACCESS



**Lowers barrier to collaboration
read, write, admin, url**

WEB INTERFACE



WEB INTERFACE

- View your code from any device/location
- Every line is a reference for a future need
- Total transparency
- See the history of everything
- Diffs in the browser
- Collaboration tools
- Communication tools

PRODUCTIVITY



Increases ↑

PRODUCTIVITY

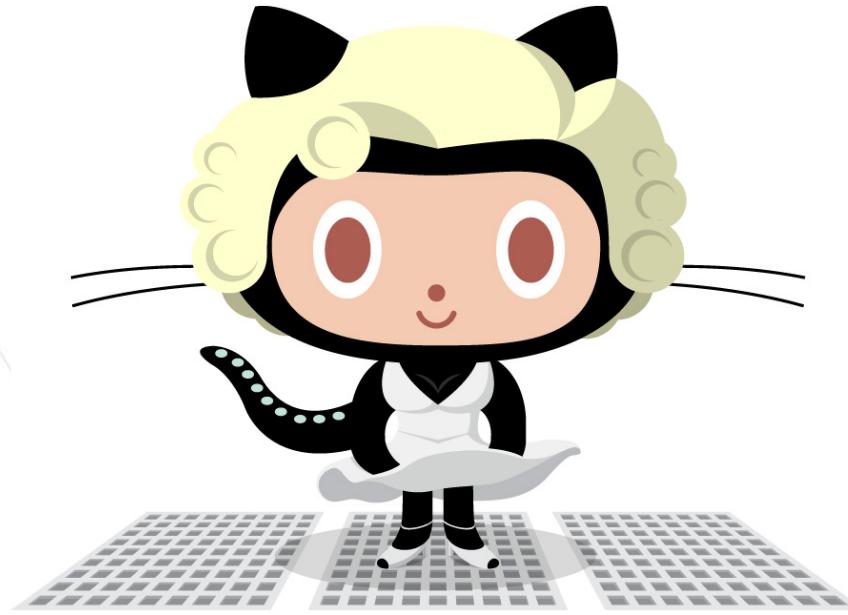
➤ GIT

- Multiple people (more hands on deck)
- Modularity
- Time travel
- Work offline

➤ WEB INTERFACE

- View code from any device/location
- Every line is a reference for a future need
- Collaboration tools
- Communication tools

QUALITY



Increases ↑

QUALITY

- **GIT**
 - Multiple people (more eyes)
 - Modularity
 - Time travel
- **WEB INTERFACE**
 - Code reviews can catch mistakes

ADOPTION

OF VERSION CONTROL



Increases ↑

ADOPTION

OF VERSION CONTROL

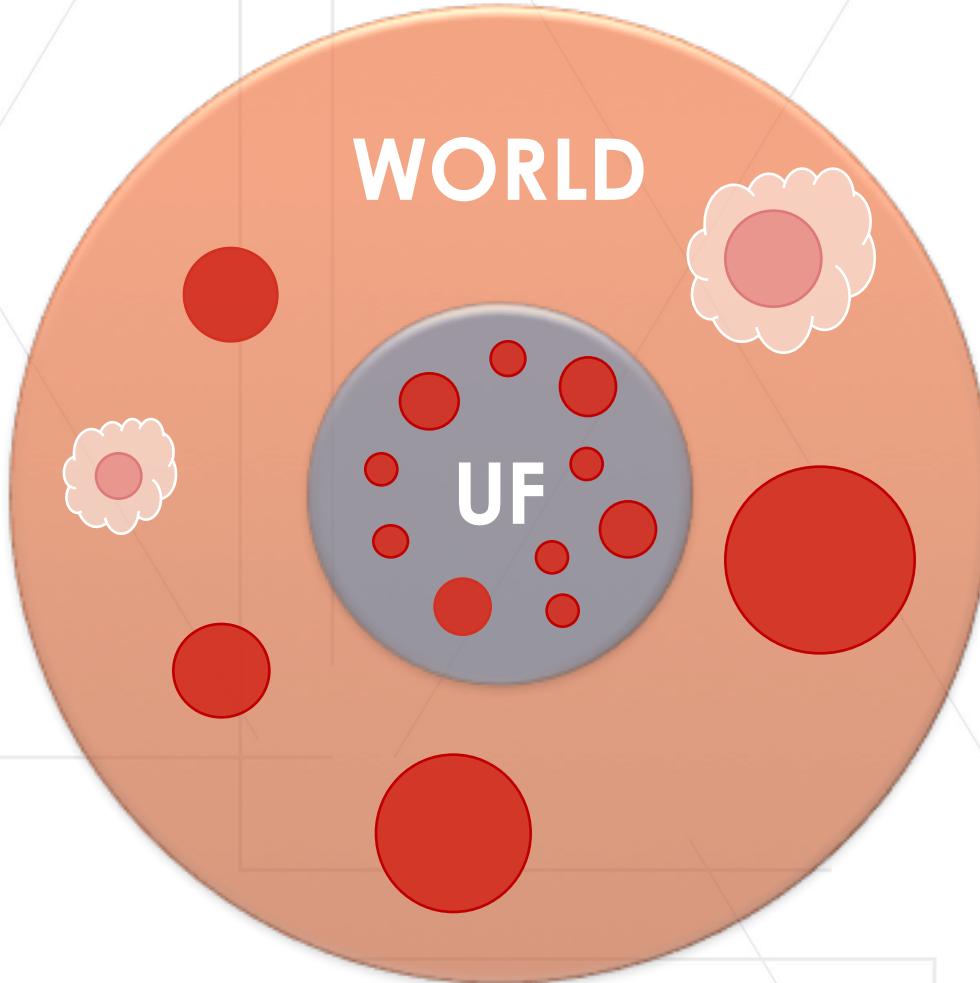
- Hosting made easy
- Productivity and quality gains
- Web interface
- Access control made easy
- Support from UFIT
- A great opportunity since a lot of people are still not using version control
- Smart phone analogy

SECURITY

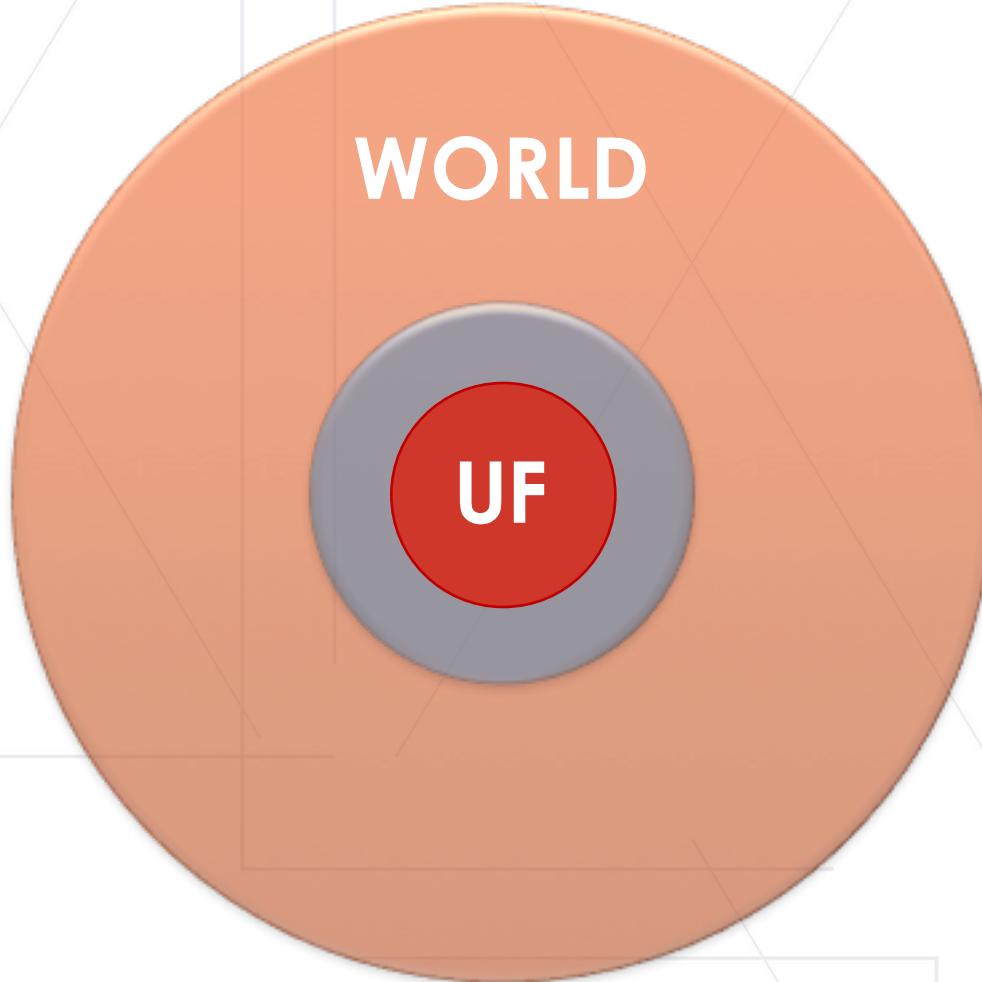


Increases ↑

RISK SECURITY



RISK SECURITY



LEGEND

SERVERS
CODE



- solution

UF

UF SERVERS

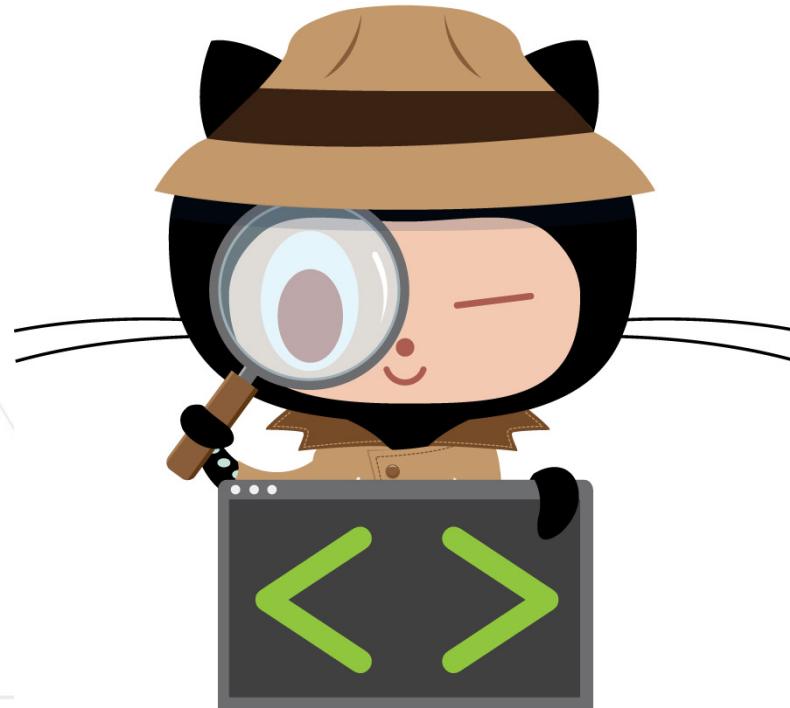
SECURITY



Private IP's and other security magic

AUDITABLE

SECURITY



**File permissions, passwords, known
vulnerabilities**

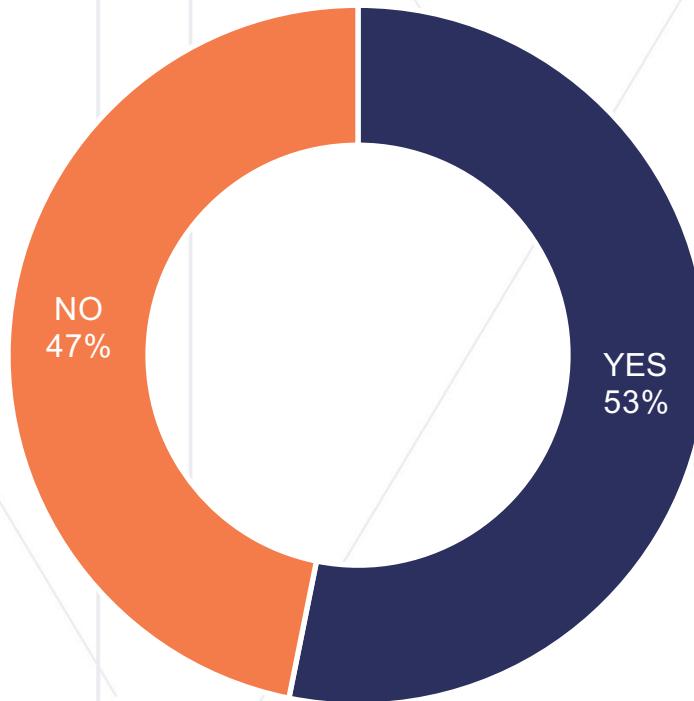
SHIB, AD, 2FA *SECURITY*



Shibboleth.®

FEAR OF CLOUD HOSTING

SECURITY



Kills collaboration opportunities

NON SYS ADMINS

SECURITY

Frontend awesome!



Backend noob!

Installing, updating, and patching LAMP and
Windows servers for Git & SVN hosting

COMMUNICATION



Increases ↑

COMMUNICATION

ISSUES & LABELS

CODE REVIEW

MILESTONES

COMMENT & DISCUSS

MARKDOWN

WIKI

All project communication in one place

COMMUNICATION

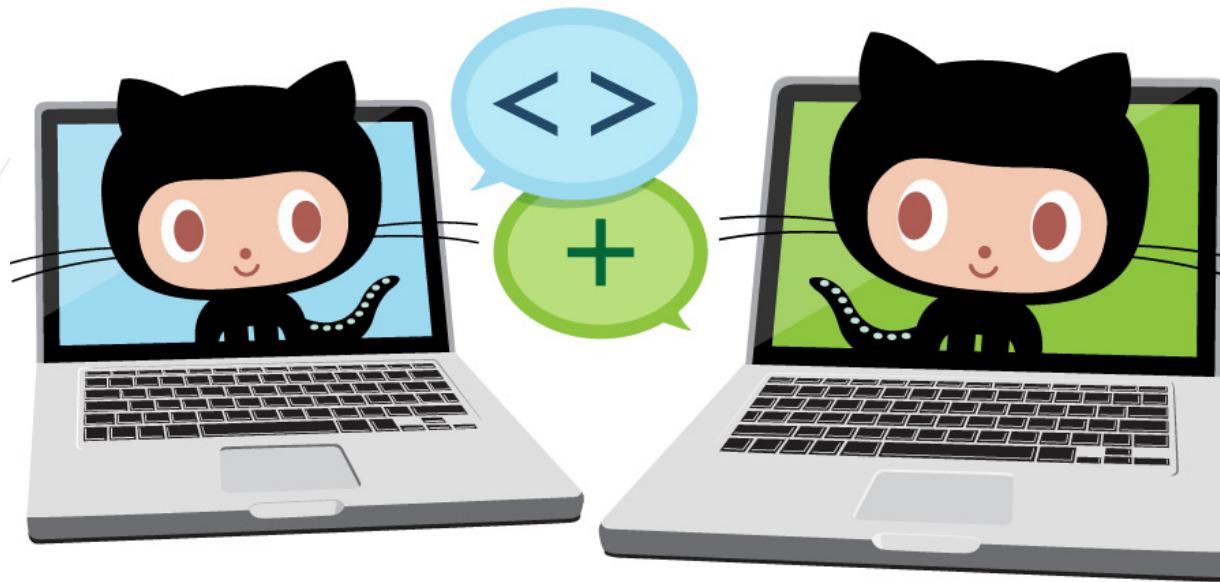
EIS HOSTING DOCUMENTATION

SHIBBOLETH DOCUMENTATION

FAQ's

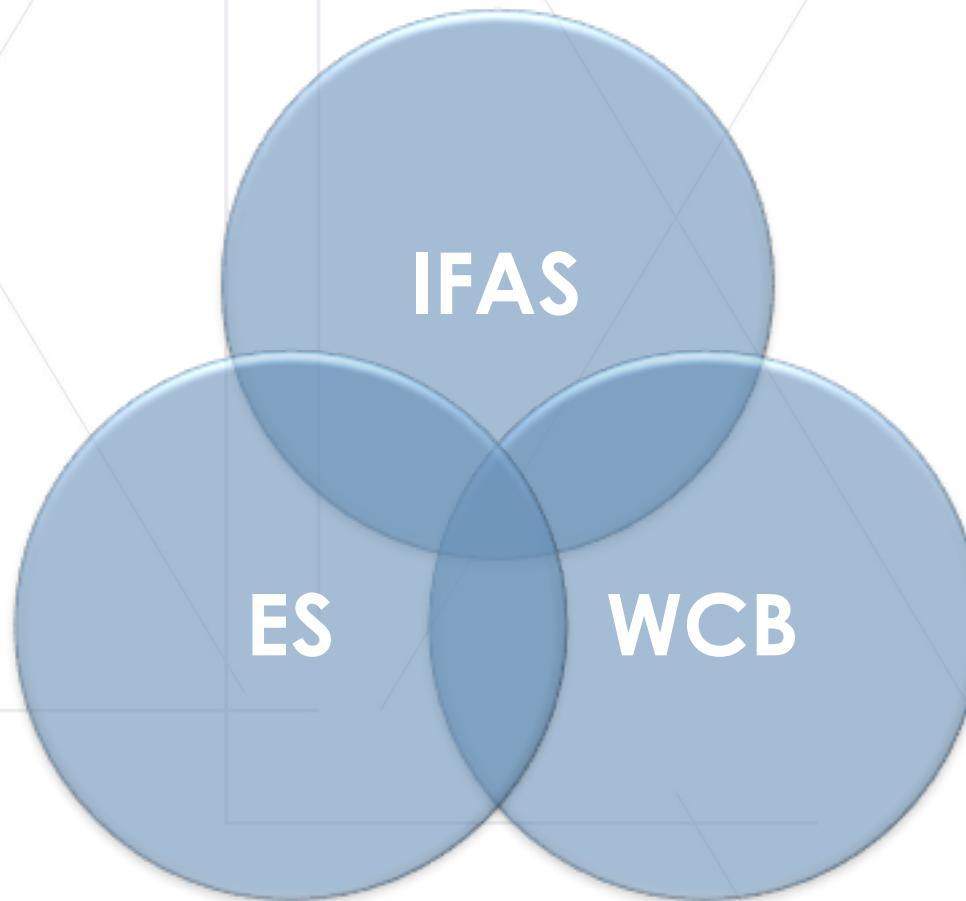
Can be crowd sourced

COLLABORATION



Increases ↑

BARRIERS ↓



- solution

COLLABORATION



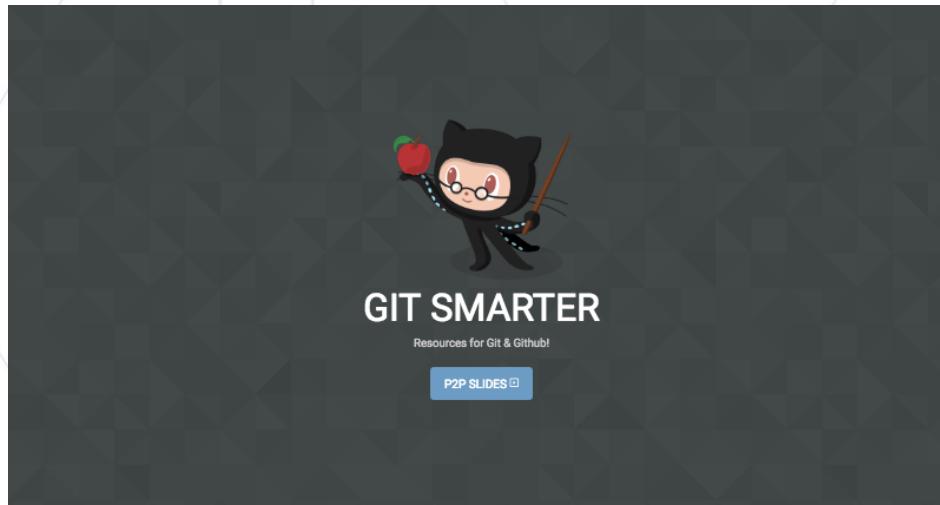
SHARE / REUSE

CONTRIBUTE

HELP

GET HELP

COLLABORATION EXAMPLE



Github Guides



Getting Git



Pro Git



Git Branching

A screenshot of a Git cheat sheet titled "GIT CHEAT SHEET". The page has a blue header with the GitHub logo and the title. Below the header, there is a brief description of what a Git cheat sheet is. To the left of the main content, there is a sidebar with three items: "GitHub", "Git Tower", and "Atlassian".

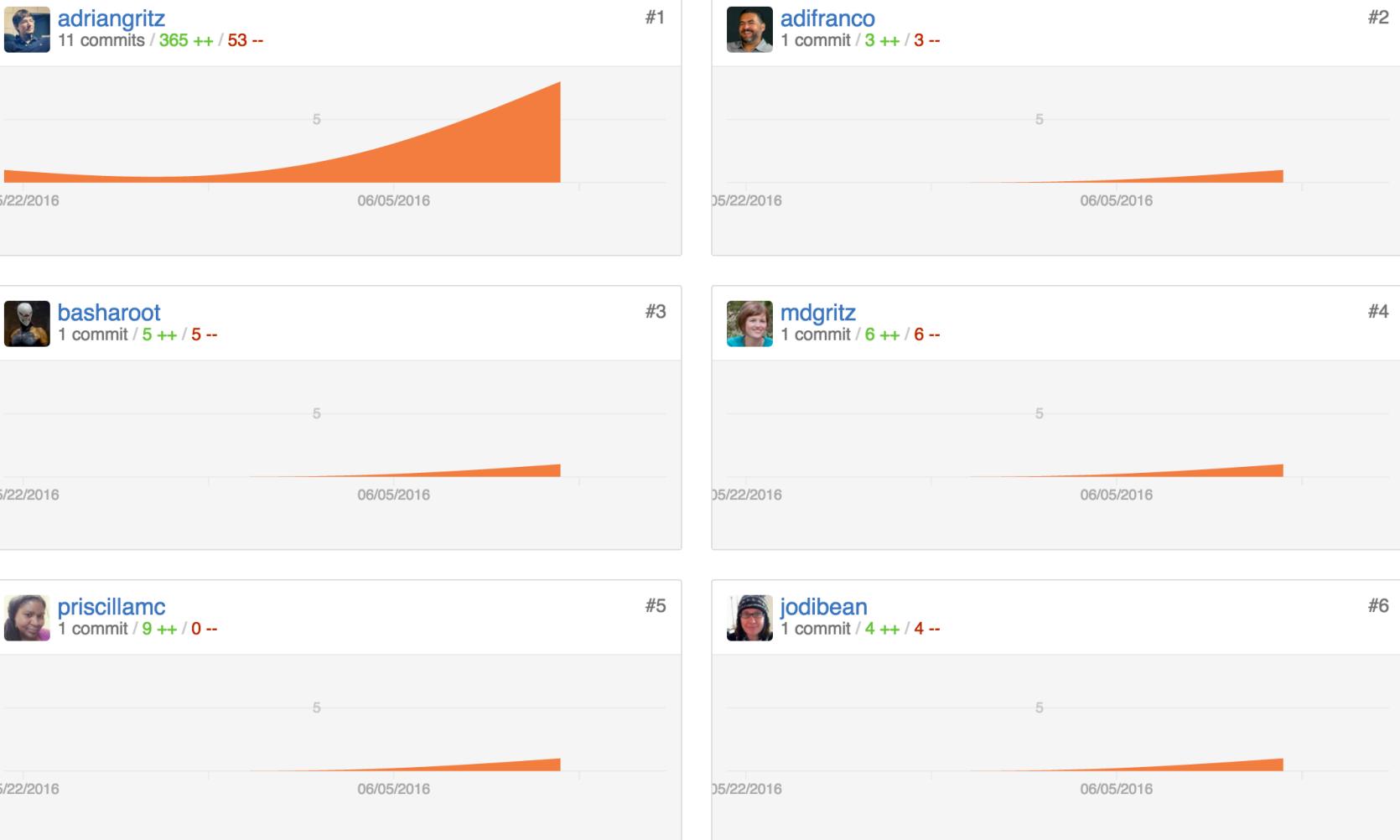
GitHub
This cheat sheet summarizes commonly used Git command line instructions for quick reference.

Git Tower
Our Git cheat sheet saves you from learning all the commands by heart. Plus best practices.

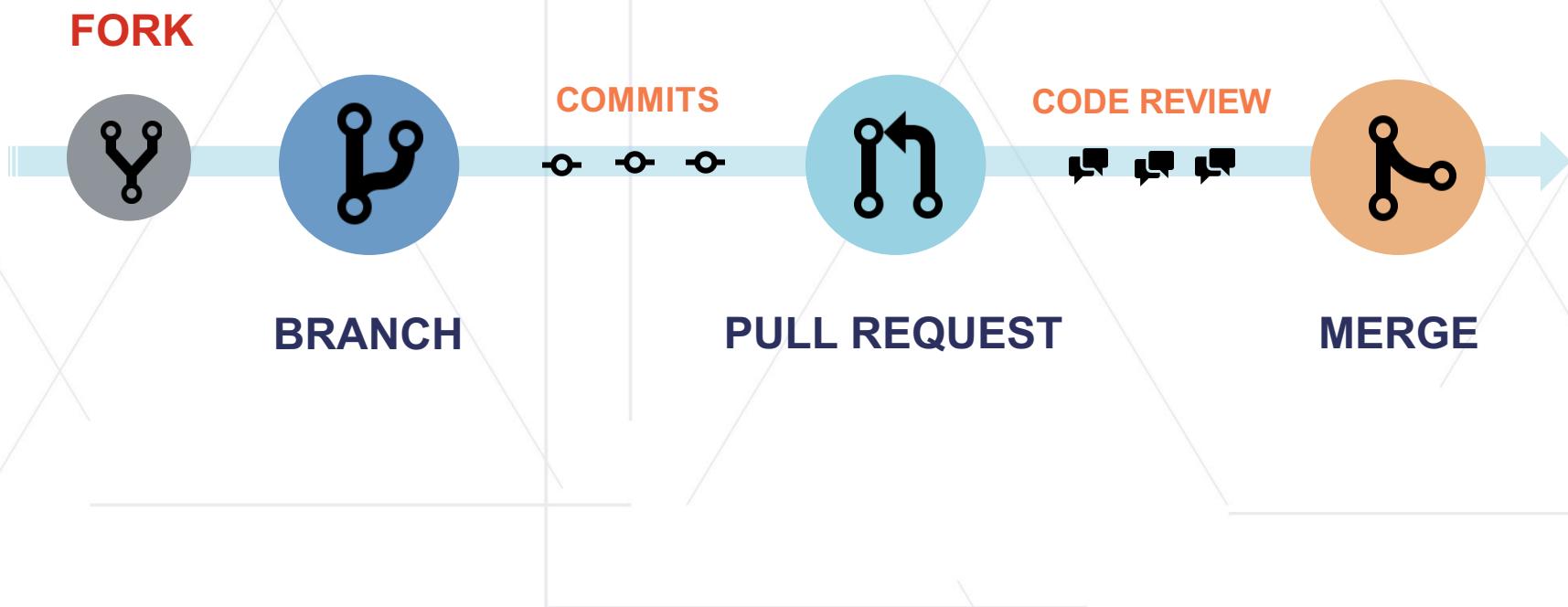
Atlassian
A quick reference for the most frequently used Git commands.

Git is the open source distributed version control system that facilitates GitHub activities on your laptop or desktop. This cheat-sheet summarizes commonly used Git command line instructions for quick reference.

CONTRIBUTORS



COLLABORATION



GitHub Flow / Feature Branch Workflow

FORK

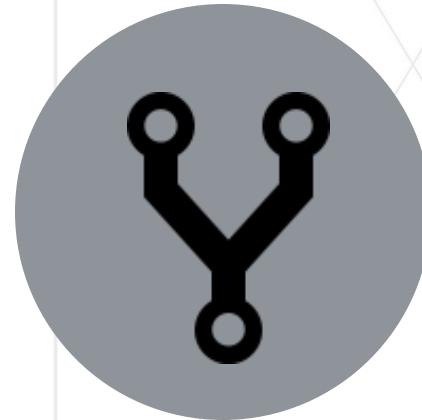
GITHUB FEATURE

Contribute

Feature

Bug

Head start



Copy a project you don't have access to
into your account

BRANCH

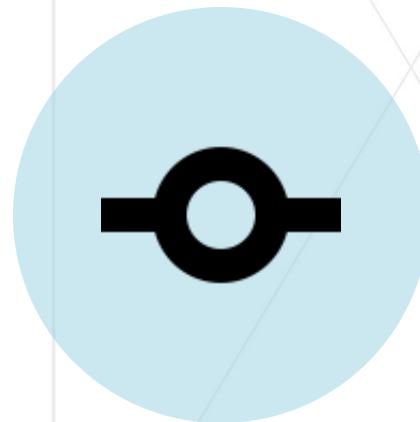
GIT FEATURE



A parallel copy of project within your own account to work on a feature, bug, etc.

COMMIT

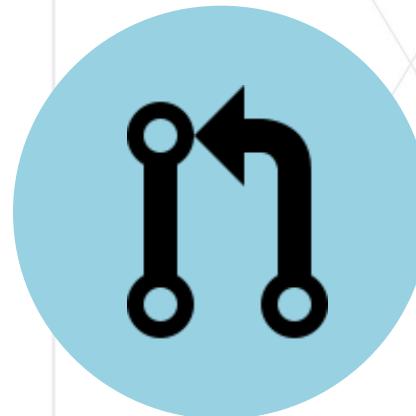
GIT FEATURE



A batch of code changes with a message

PULL REQUEST

GITHUB FEATURE



A notification to original owner that you completed a feature or fixed a bug

CODE REVIEW

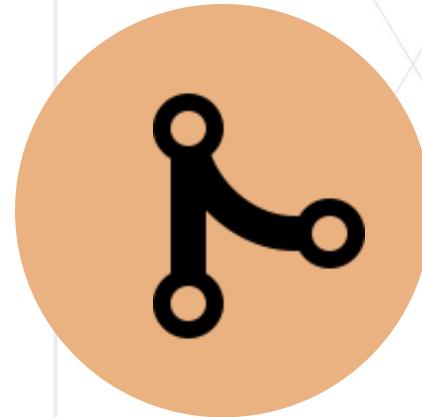
GITHUB FEATURE



Original owner reviews feature or bug fix

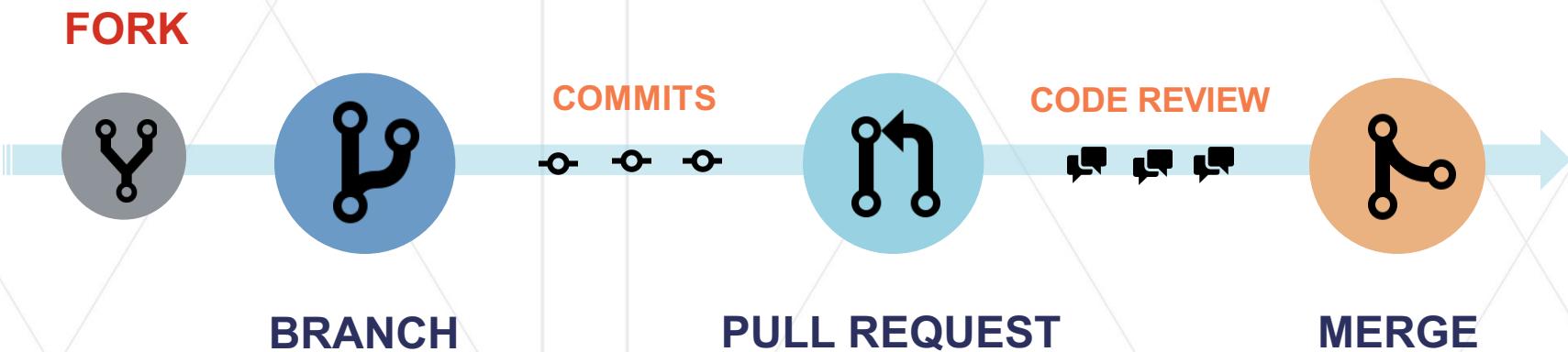
MERGE

GIT FEATURE



**Original owner merges feature or bug fix
into original project**

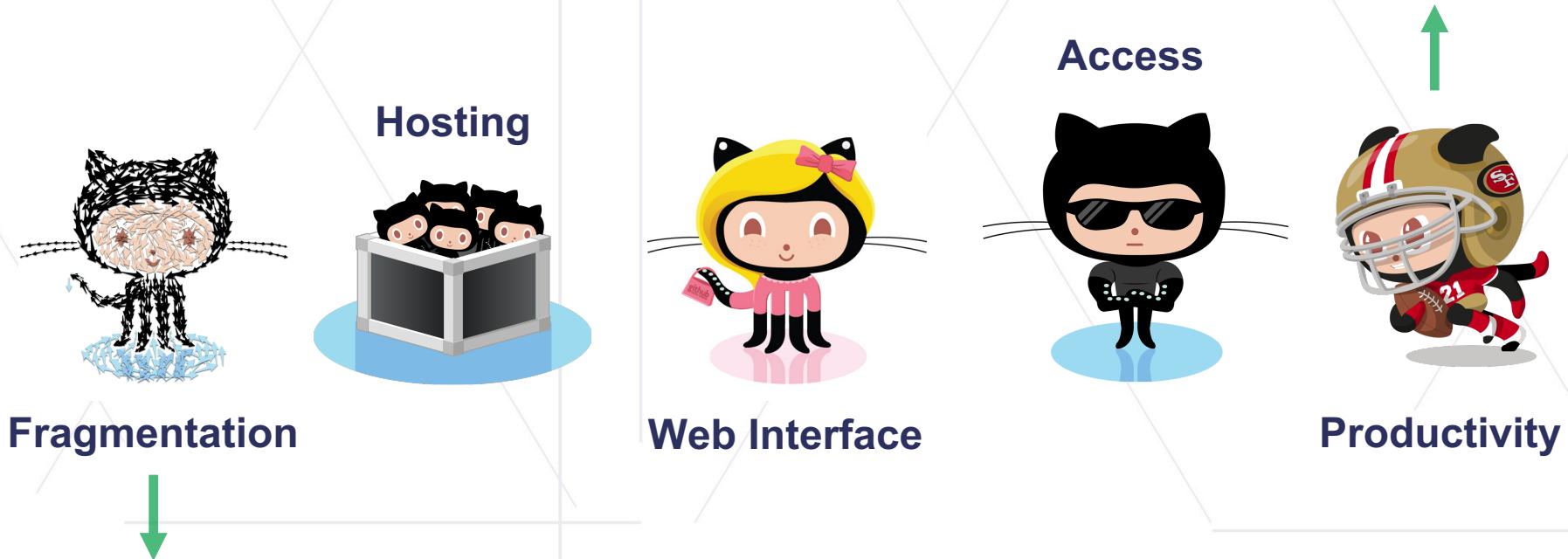
COLLABORATION



GitHub Flow / Feature Branch Workflow

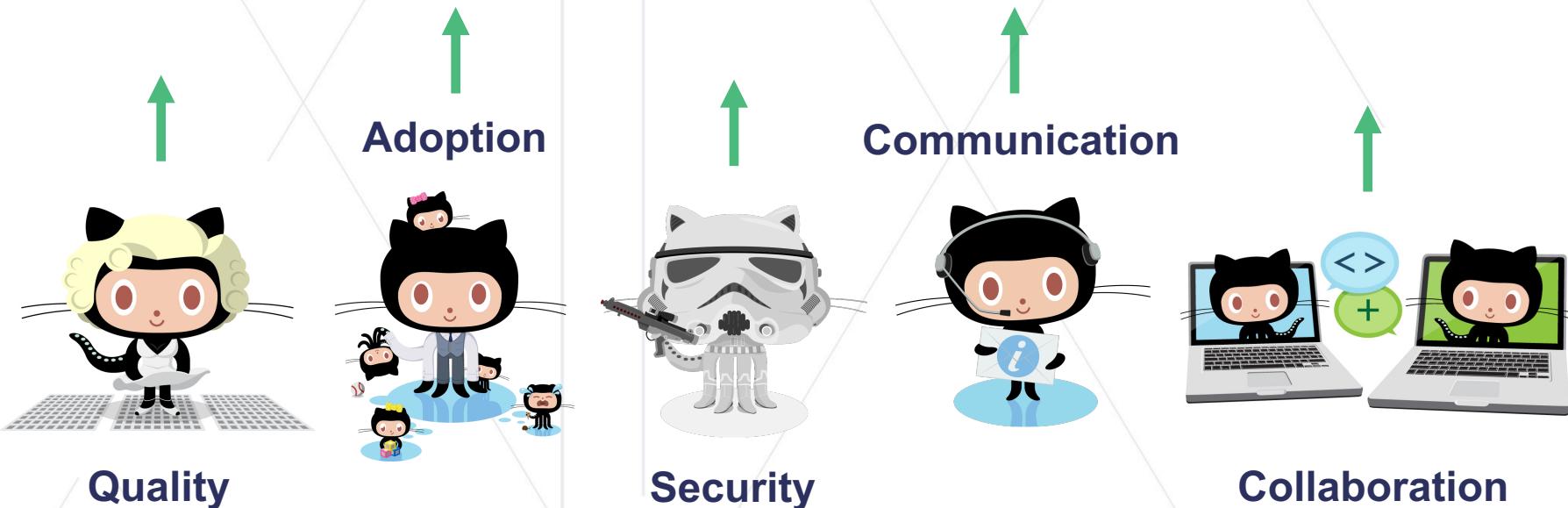
THE VALUE

IN REVIEW



THE VALUE

IN REVIEW



TAKE HOME



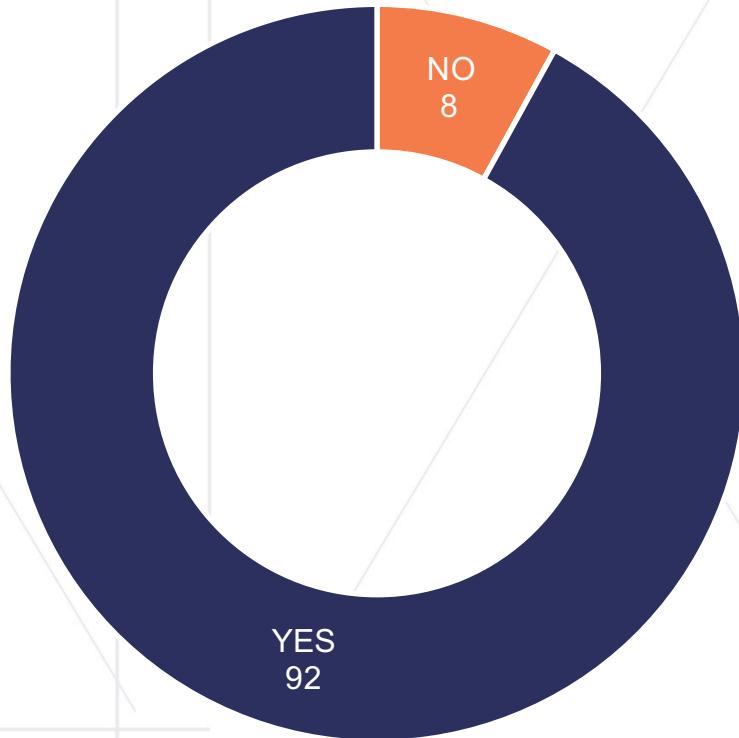
Github provides a lot of value!

PEOPLE CARE



This is important to many people!

GITHUB YES PLEASE



WCM survey had 94 replies
Peer to peer had 10

OPINIONS FROM PEOPLE WHO CARE

01

I like this.

02

Love the potential networking and sharing of creativity.

03

This would greatly benefit all of UFIT and would be worth any expense.

04

This topic is the first useful thing I have seen on yammer.

05

This would be a welcome resource for code-sharing in and among UF projects.

06

I think it is short sighted for UFIT to not try to centralize and protect the code that is being written to conduct official UF business.

A LOT OF THANKS



A LOT OF THANKS



Thanks for taking this initiative. I support this effort.



I really want the push for Github for the Enterprise to be successful.



Thank you again for taking the time and effort to make this process more visible.



Thank you!



Great job you have my appreciation!



Thanks for putting this together!

PEERS AROUND CAMPUS



I hope it gets funded! It would be awesome!
Thank you!

IF THEY WERE HERE



They might say pretty please with a
cherry on top!

TAKE HOME



People care!

LETS IMAGINE A FUTURE



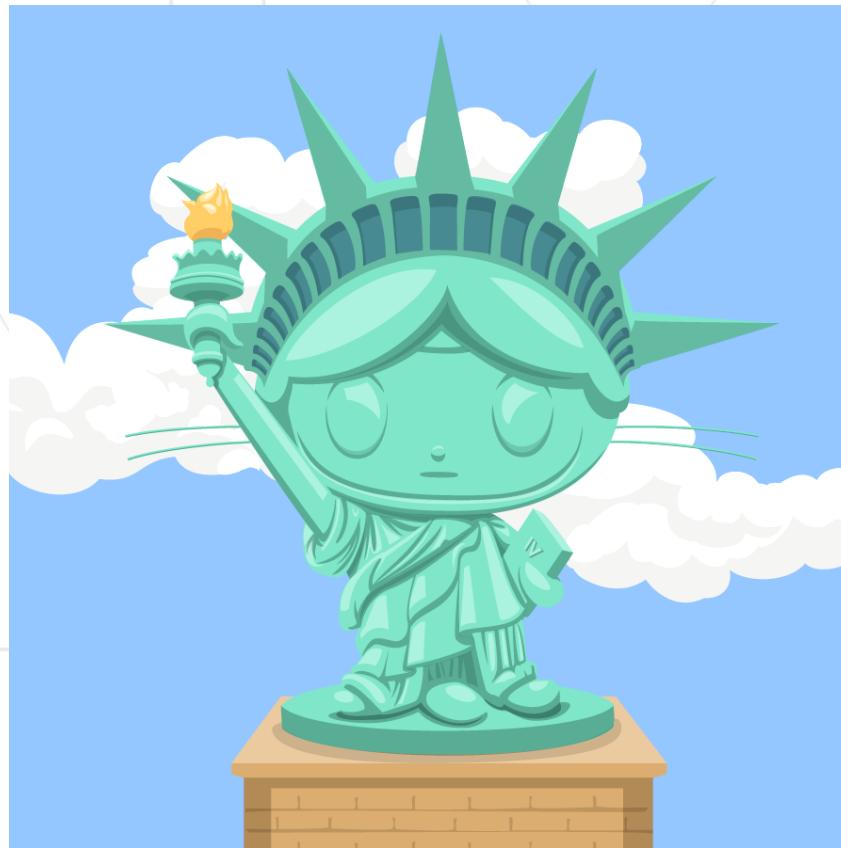
Where we put it all together!

- put your imagination glasses on

GITHUB IS APPROVED



A SYMBOL FOR COLLABORATION



EVERYONE CELEBRATES

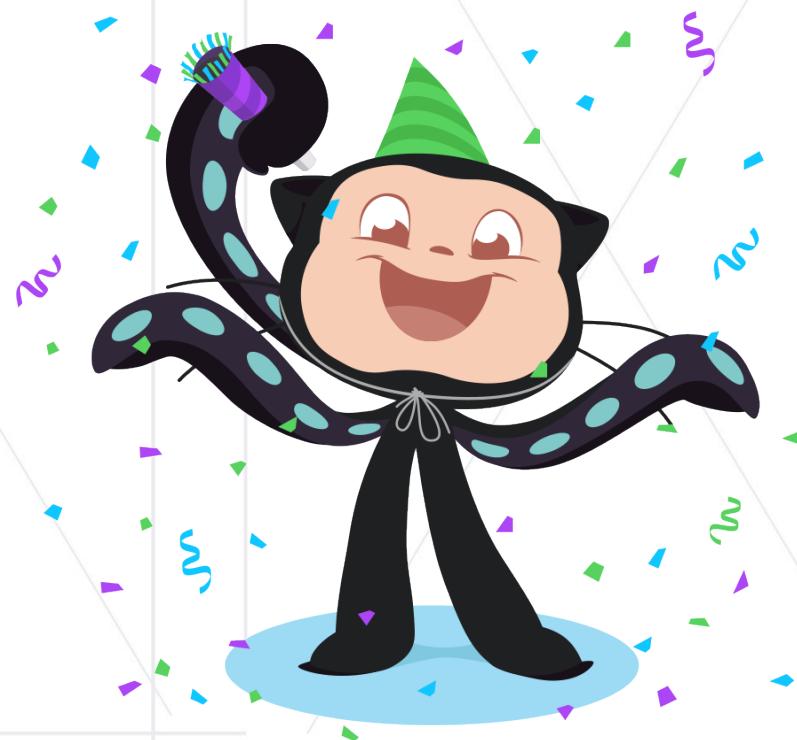


1 ODD SIDE EFFECT



What could it be?

DEVELOPER HAPPINESS



Increases ↑

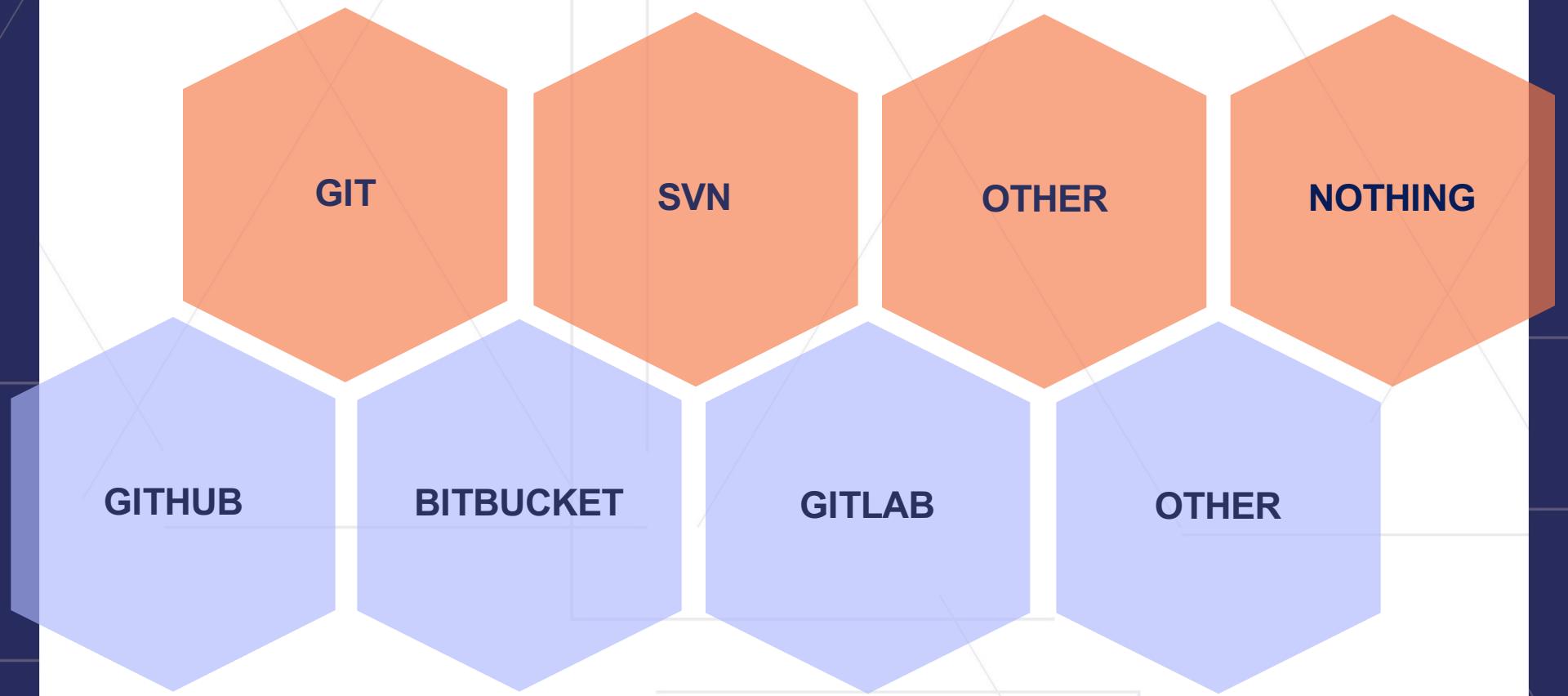
DEVELOPER HAPPINESS

31% MORE PRODUCTIVE

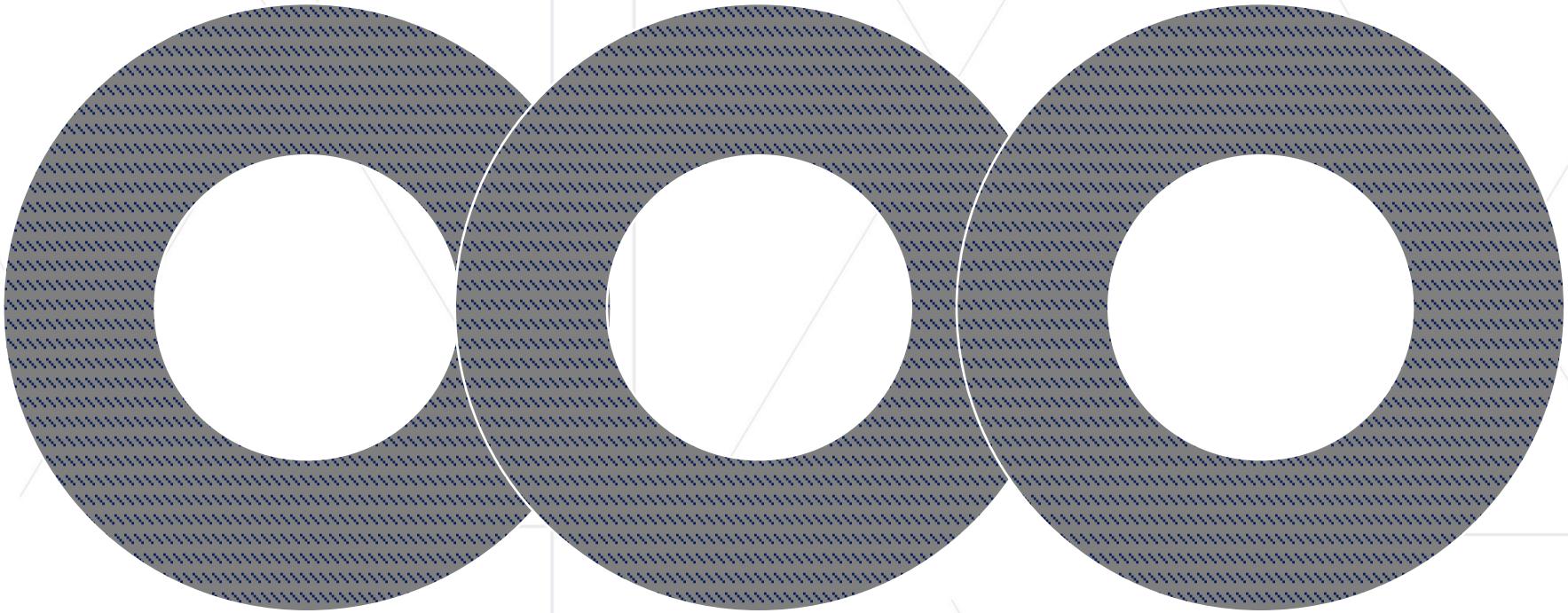
3x MORE CREATIVE

- Harvard Business Review

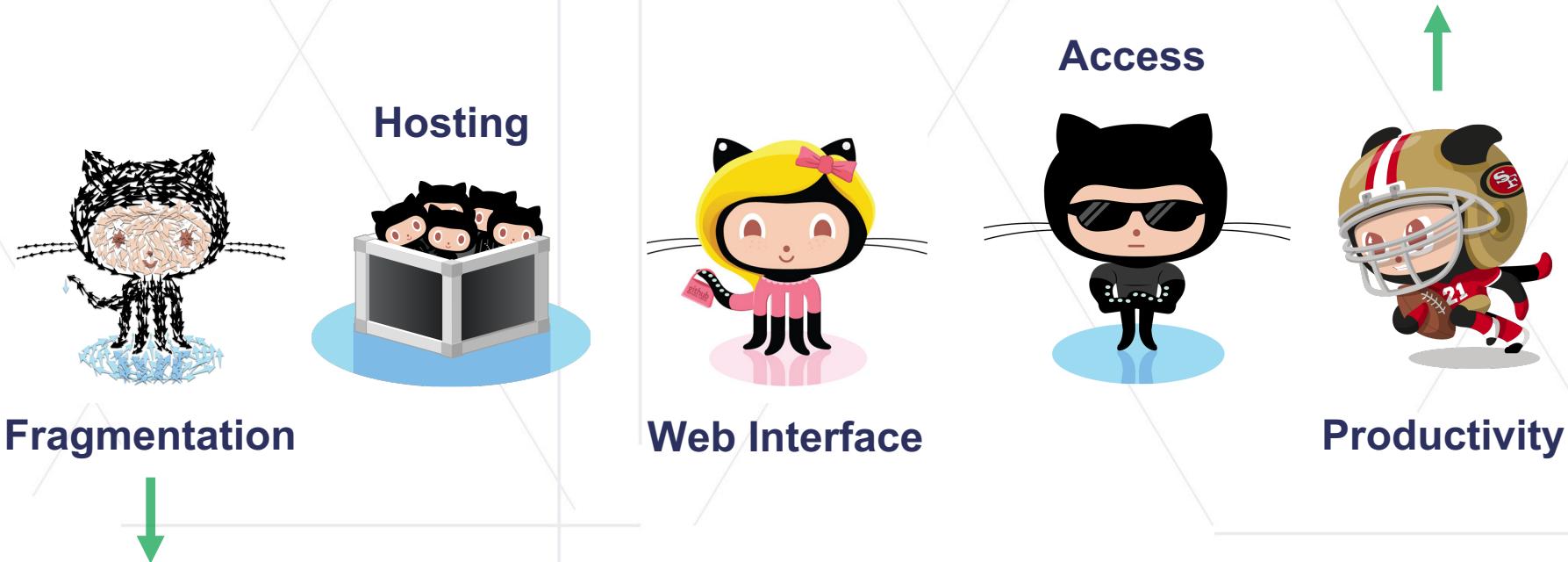
GOODBYE FRAGMENTATION



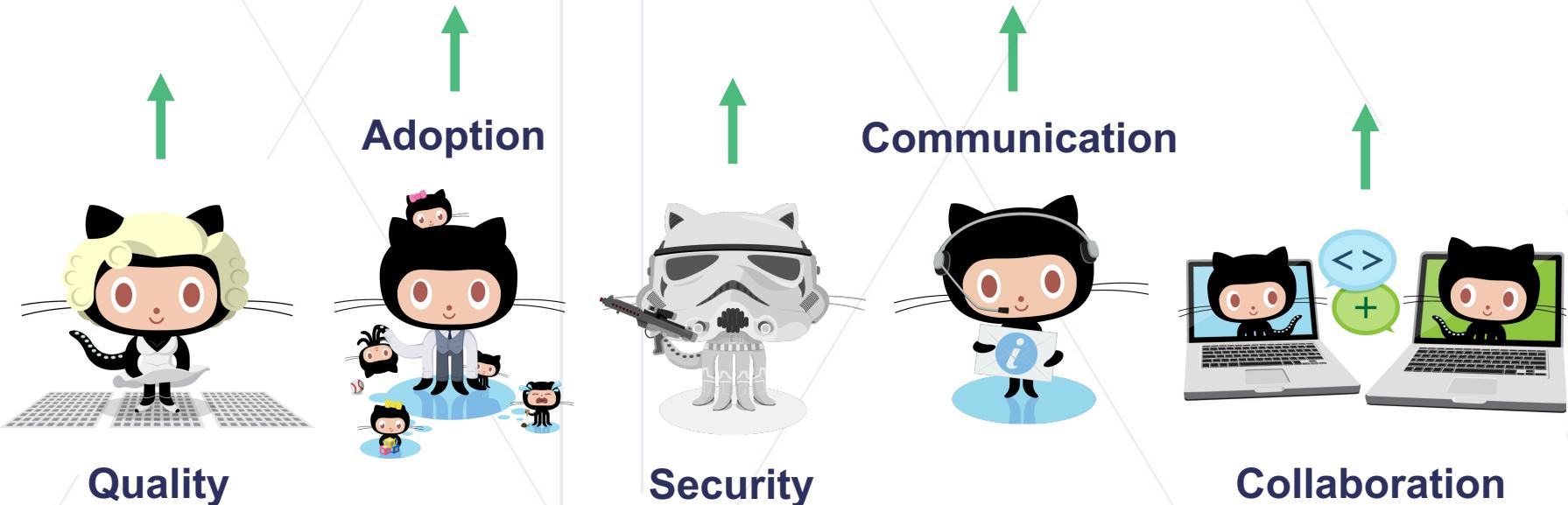
GOODBYE REINVENTING THE WHEEL



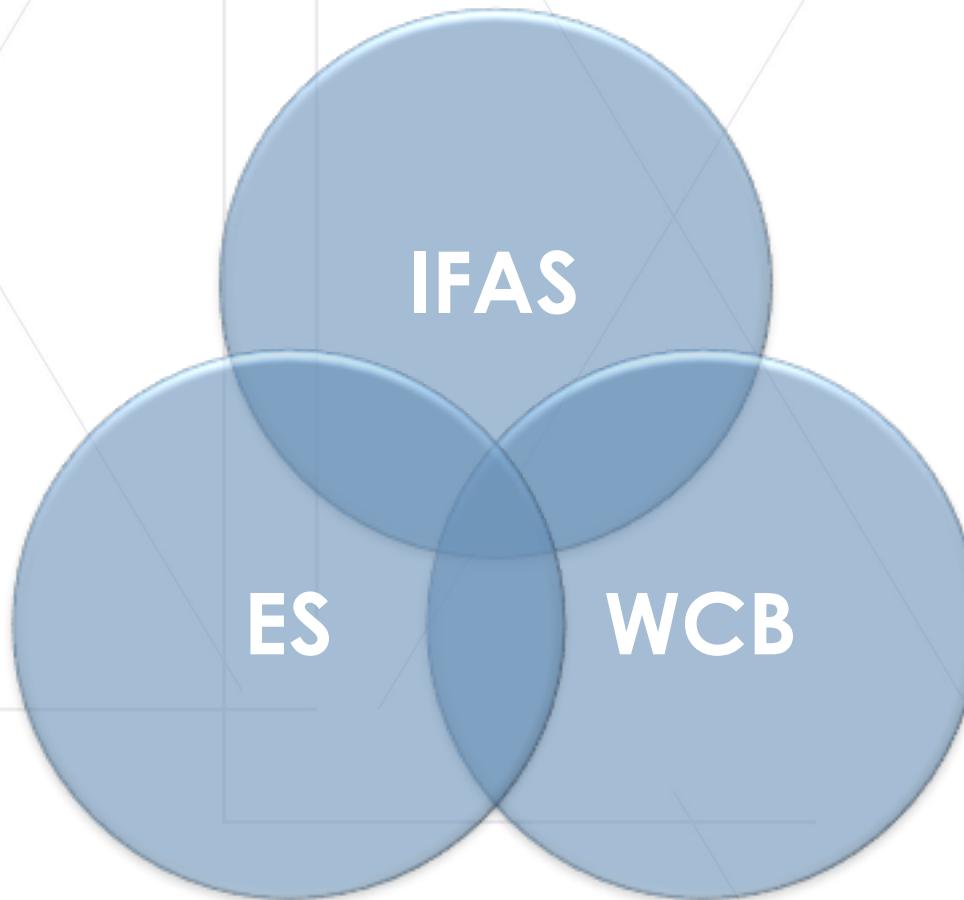
WE GET A LOT OF VALUE



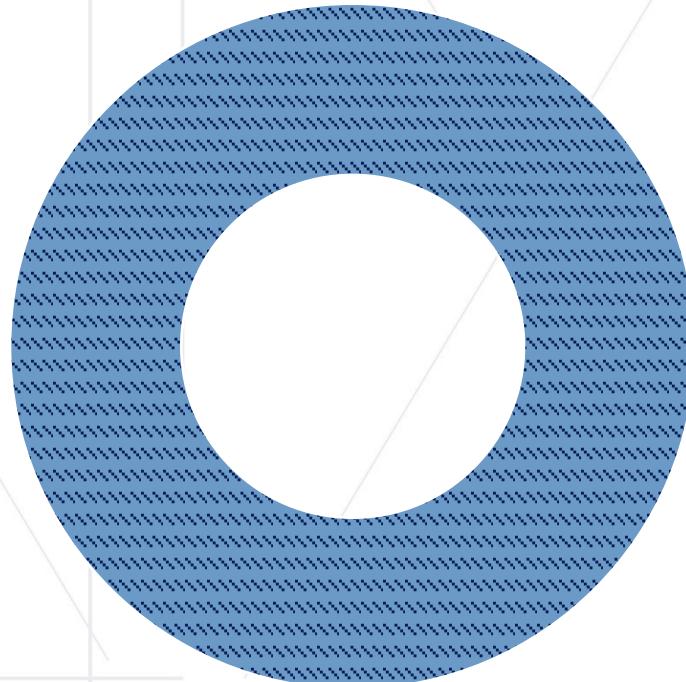
A LOT OF VALUE



A LOT OF OPPORTUNITY



TO SOLVE PROBLEMS AND SHARE SOLUTIONS

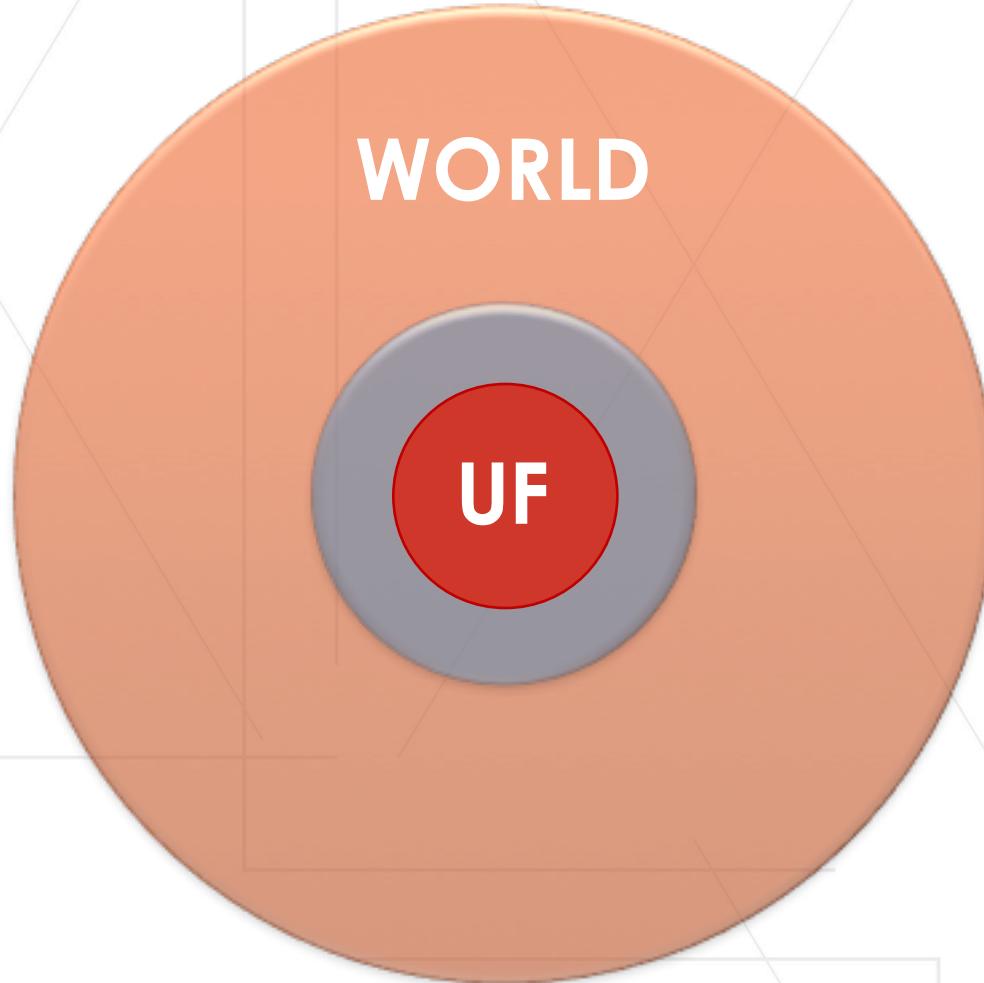


So others don't have to reinvent the wheel

USING A COMMON LANGUAGE/TOOL



IN A SECURE ENVIRONMENT



LEGEND

SERVERS

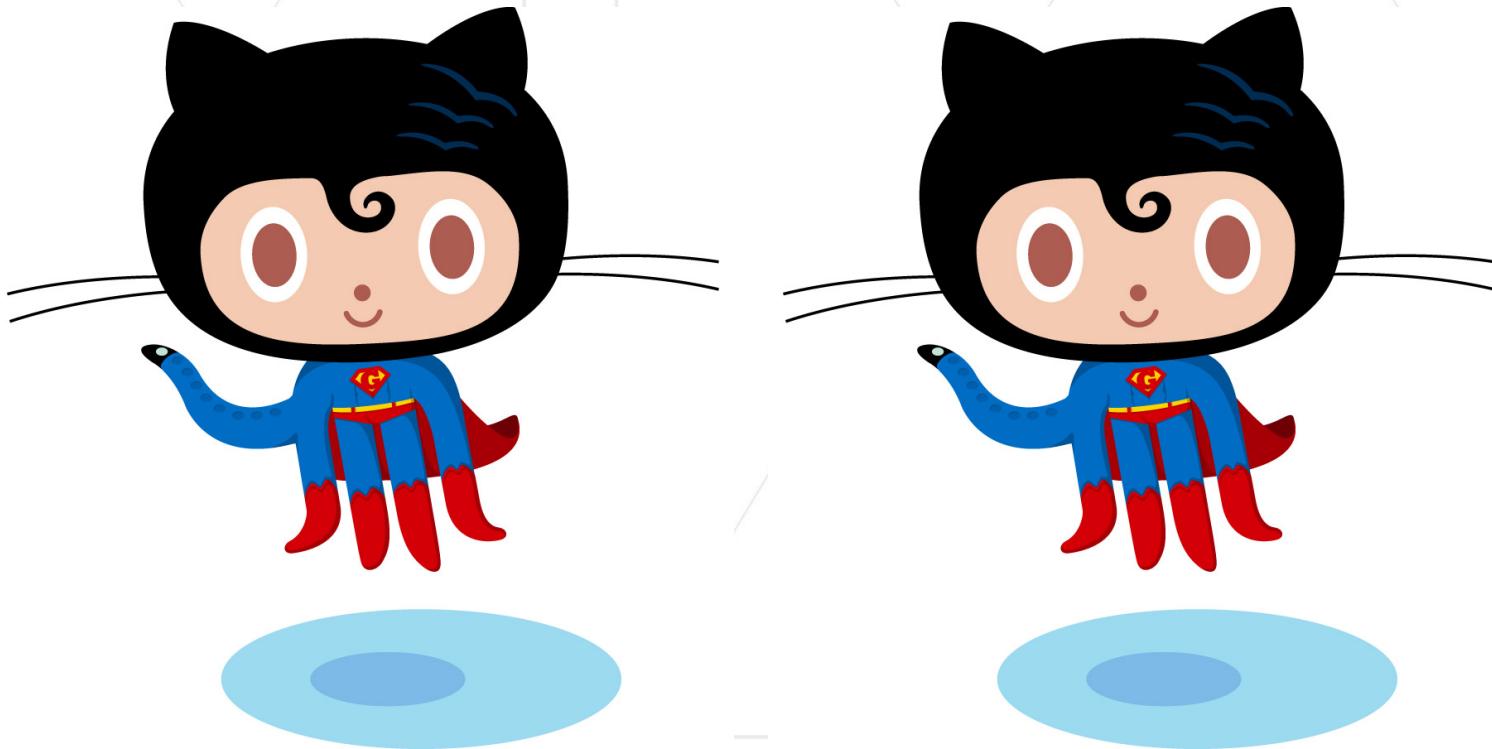
CODE



- risk

UF

FOR EMPOWERED DEVELOPERS





To build some extraordinary things!!!

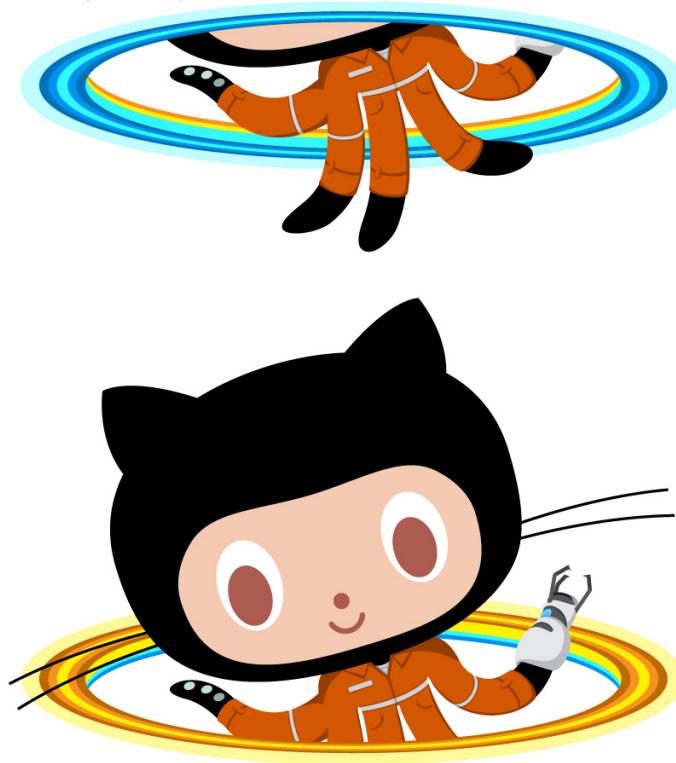
TOGETHER



CALL TO ACTION



THE FUTURE



The future is not a place we go!

THE FUTURE



The future is a place we make!

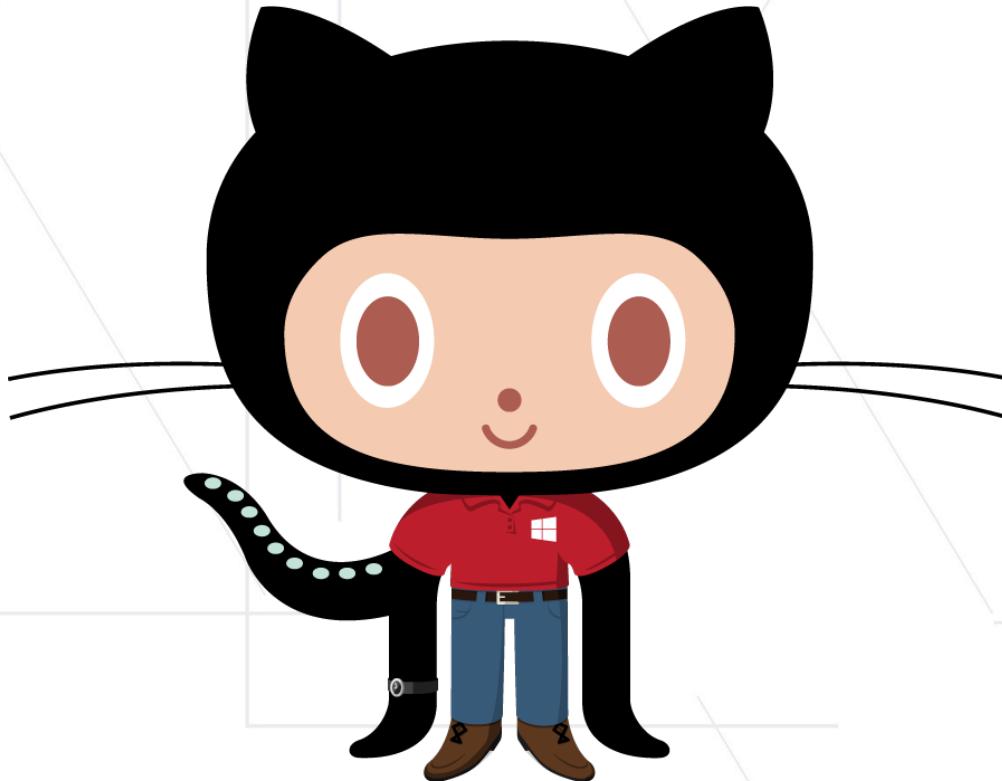
IT'S YOUR TIME



TO SHINE



**FOR APPROXIMATELY THE
COST OF 1FTE**



YOU HAVE THE POWER



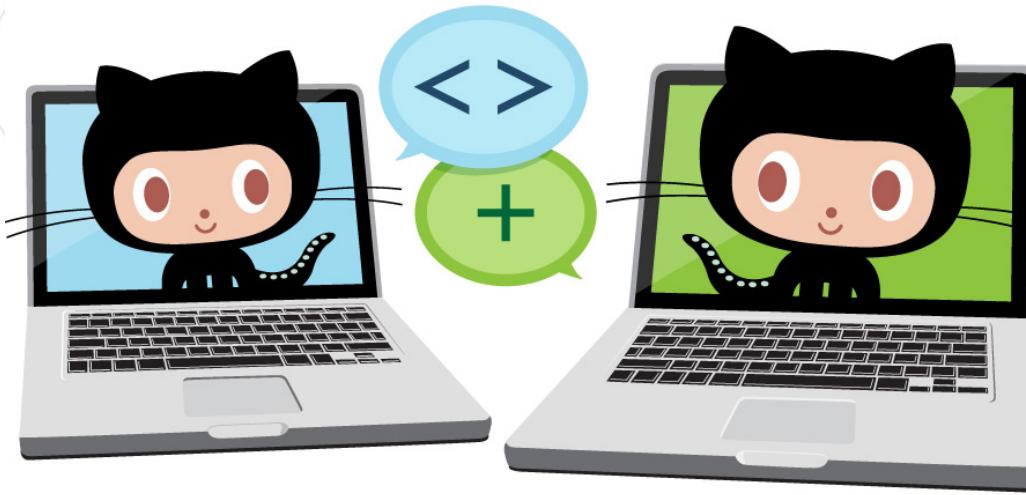
TO PROMOTE A CULTURE



THAT BRINGS PEOPLE TOGETHER



ENCOURAGES COLLABORATION



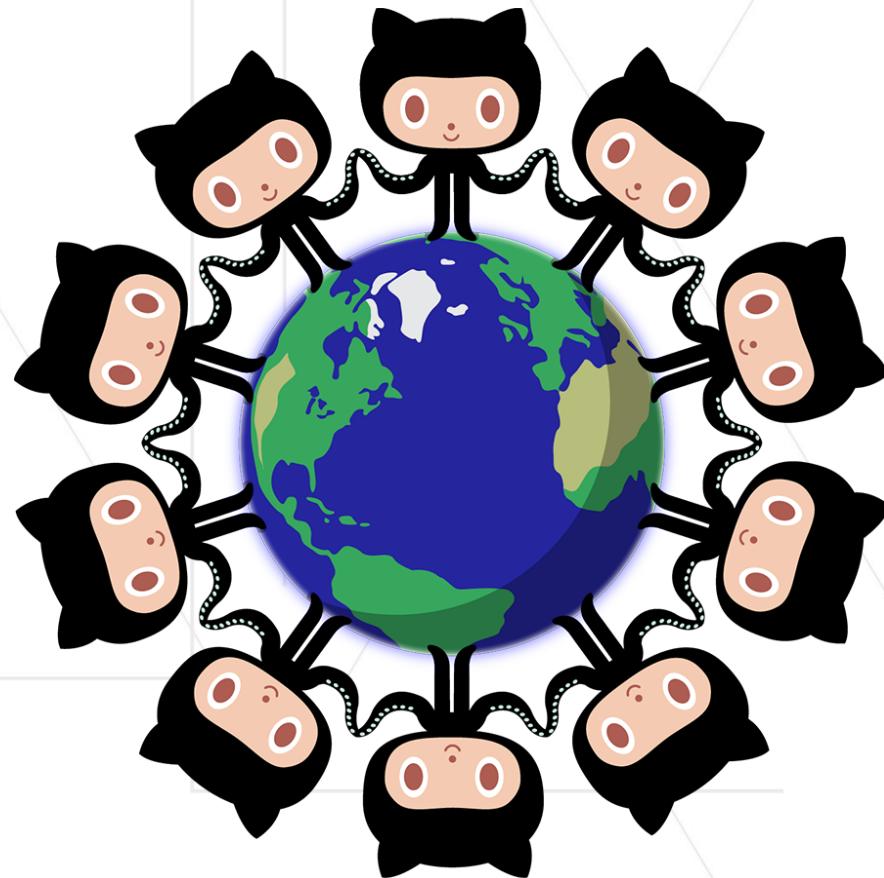
SHARE / REUSE

CONTRIBUTE

HELP

GET HELP

AND THAT IS A CULTURE I WANT TO BE A PART OF



QUESTIONS?

