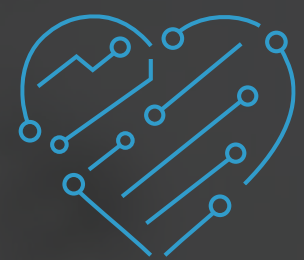


# CONTRIBUTING WITH COMPASSION

LLVM Workshop - October 21, 2019



COMPASSIONATE CODING

@APRILWENSEL  
@COMPASSIONCODE



Thank  
you



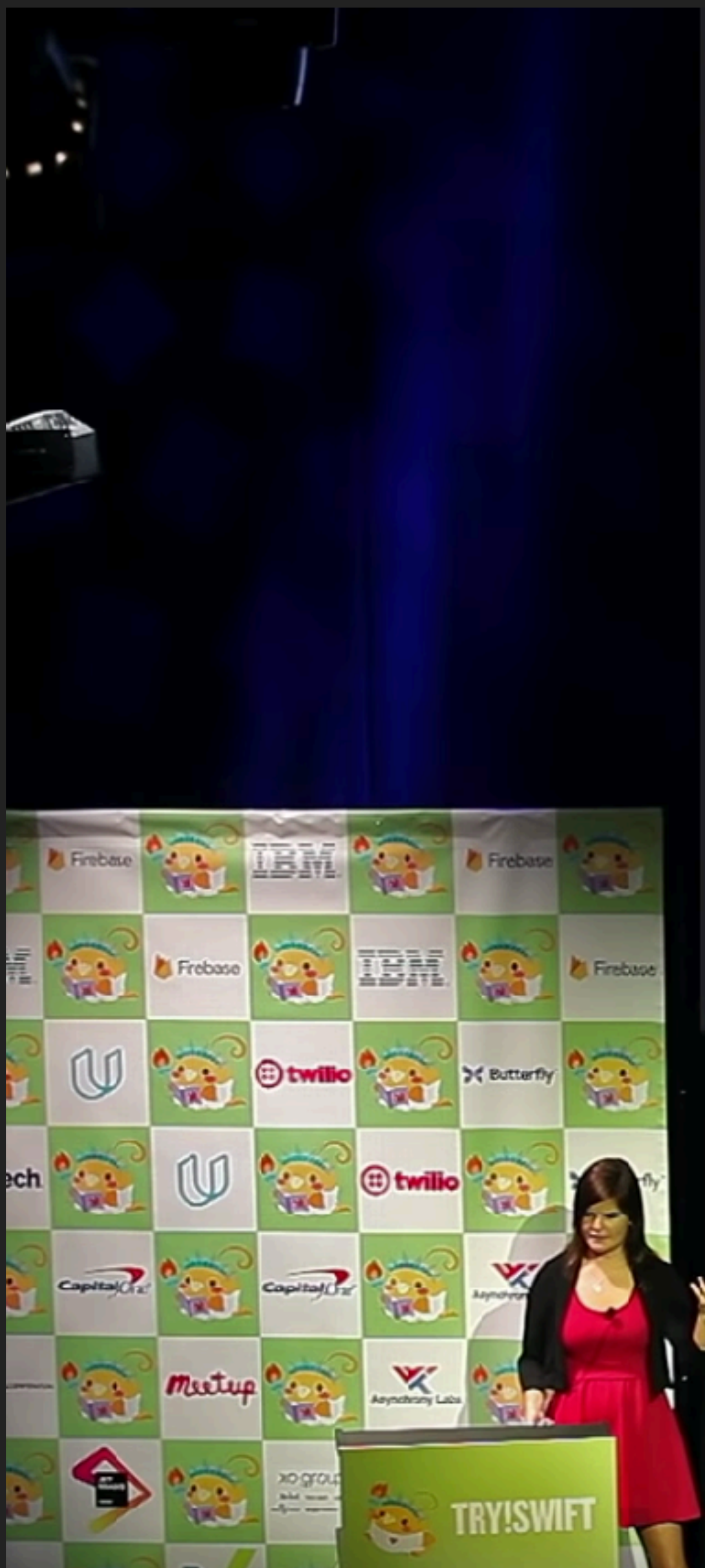




#COMPASSIONATECODING

@APRILWENSEL





## Programmers are having a huge debate over whether they should be required to behave respectfully to each other

Julie Bort May 6, 2018, 10:00 AM



<http://www.businessinsider.com/programmers-debate-requirements-to-behave-respectfully-ccoc-2018-5>

@APRILWENSEL

Compassionate—Yet Candid—Code Reviews - April Wensel  
<https://www.youtube.com/watch?v=Ea8EiIPZvh0>



#COMPASSIONATECODING

@APRILWENSEL



WHY ISN'T THIS TALK  
PART OF THE MAIN  
DEVELOPER'S MEETING?





# MY BACKGROUND



#COMPASSIONATECODING

@APRILWENSEL





# I LOVE TECH



#COMPASSIONATECODING

@APRILWENSEL



# ME: 10 YEARS AS SOFTWARE ENGINEER, LEADER, MENTOR, TEACHER...

SONY

zoodles



Hackbright  
Academy



CARNEGIE  
INSTITUTION FOR  
SCIENCE



The LEAGUE  
of Amazing Programmers



leeo



User Testing



technovation



LEVEL PLAYING FIELD  
INSTITUTE

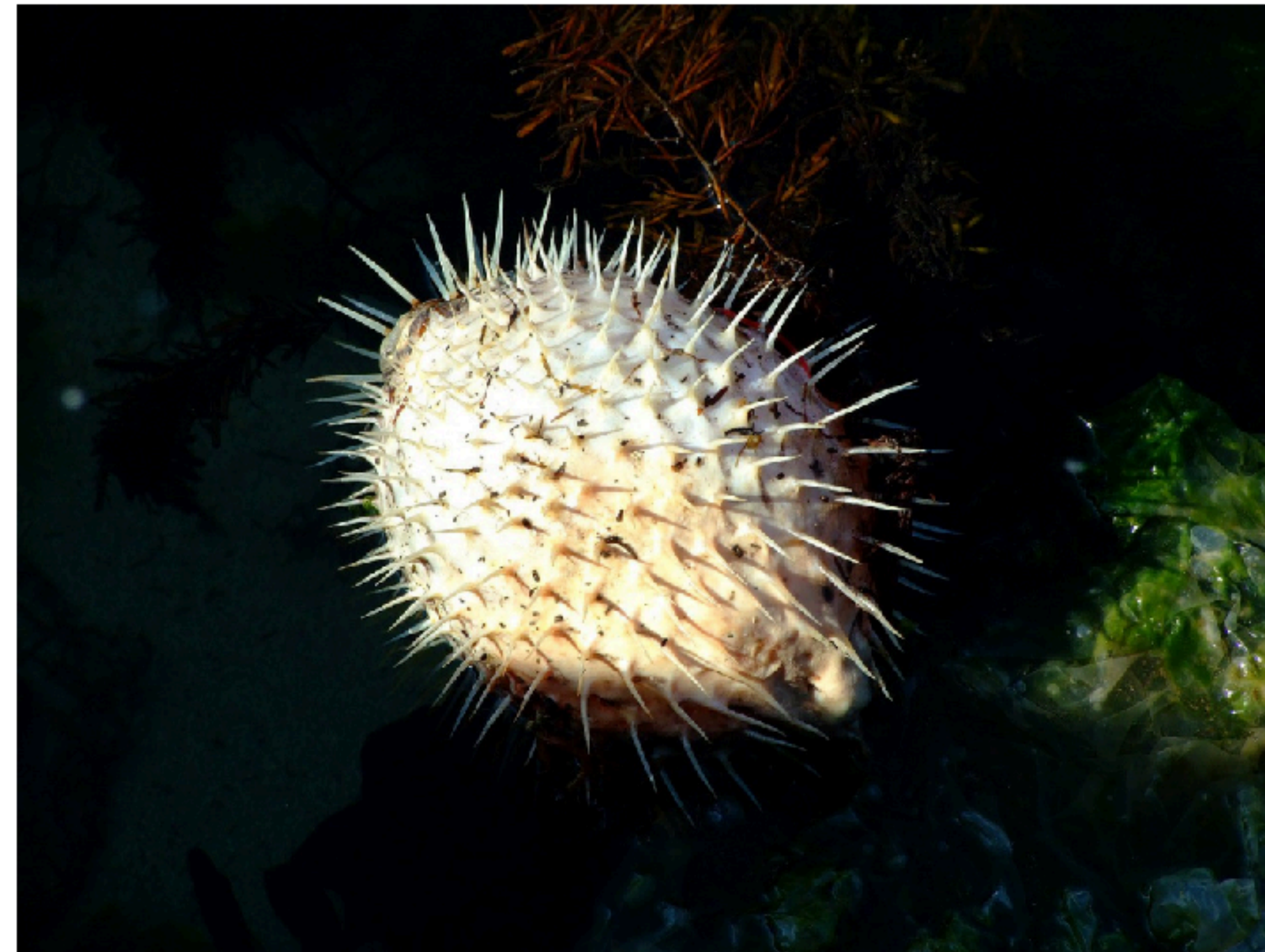


# ALSO ME: KIND OF A JERK



April Wensel  
Speaker | Founder, Compassionate Coding | [compassionatecoding.com](https://compassionatecoding.com)  
Dec 12, 2017

## Confessions of a Recovering Jerk Programmer



<https://medium.com/compassionate-coding/confessions-of-a-recovering-jerk-programmer-b9d531a05ea9>





THERE'S A LOT  
OF SUFFERING  
IN TECH



#COMPASSIONATECODING

@APRILWENSEL



# SUFFERING IN TECH

- STRESS & BURNOUT
- IMPOSTOR SYNDROME
- “TALENT SHORTAGE” MYTH
- LACK OF DIVERSITY
- POOR USER EXPERIENCE
- UNETHICAL PRODUCTS
- FAILED PROJECTS





# TECH CULTURE CAN BE TOXIC

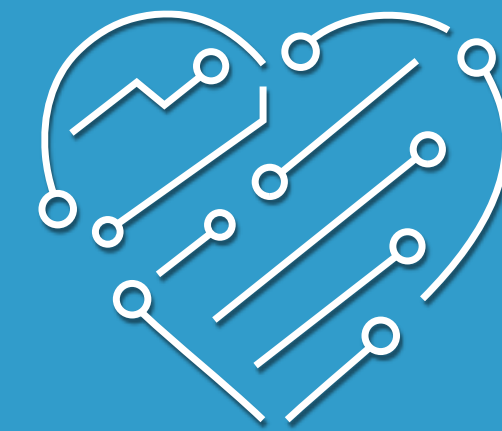




IN 2016, I BECAME VEGAN,  
LEARNED ABOUT COMPASSION,  
AND STARTED A CONSCIOUS  
BUSINESS TO TRANSFORM  
TECH CULTURE:



Vegan  
Chicken  
Tikka Masala  
pizza from  
Bossman's in  
San Jose



COMPASSIONATE  
CODING



#COMPASSIONATECODING

@APRILWENSEL



# WHY COMPASSION?



#COMPASSIONATECODING

@APRILWENSEL



# WHY COMPASSION?

## THE REDDIT RESPONSE:



It's a girly title so ...


I also don't understand why coding has to be "compassionate"?



I like the post, but 'Compassionate Coding' still sounds like self help nonsense :P







COMPASSION  $\neq$  "SUGARCOATING"



#COMPASSIONATECODING

@APRILWENSEL





**COMPASSION  $\neq$  BEING A DOORMAT**

**@COMPASSIONCODE**



# COMPASSION

“THE FEELING THAT ARISES WHEN YOU  
ARE CONFRONTED WITH ANOTHER’S  
SUFFERING AND FEEL MOTIVATED TO  
RELIEVE THAT SUFFERING”

—UC BERKELEY’S GREATER GOOD SCIENCE CENTER

<https://greatergood.berkeley.edu/topic/compassion/definition>



#COMPASSIONATECODING

@APRILWENSEL



**COMPASSION = EMPATHY + ACTION**



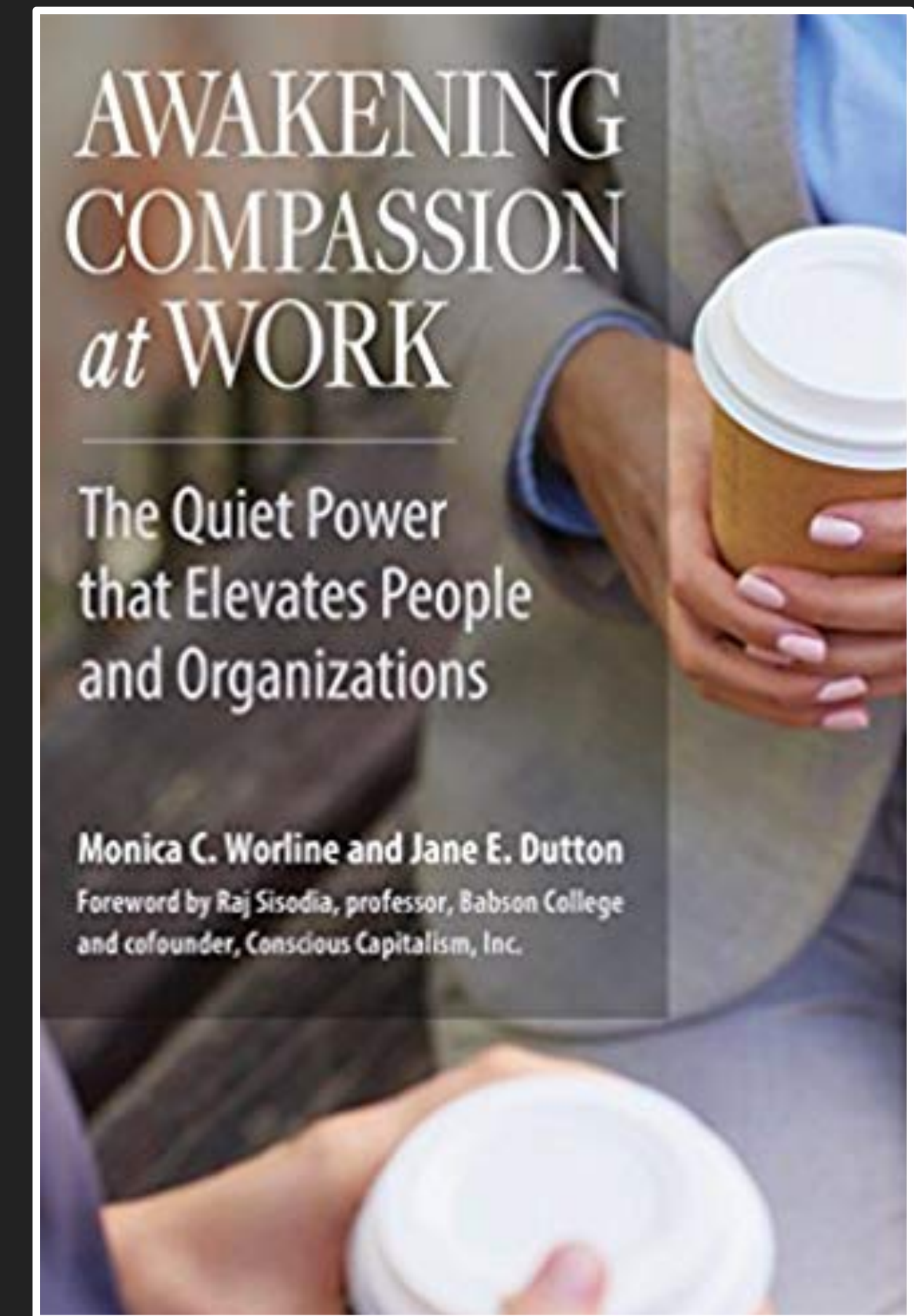


**COMPASSIONATE CODING MISSION:**

**MINIMIZE SUFFERING FOR  
TECHNOLOGISTS, USERS, AND THE  
GLOBAL COMMUNITY**



COMPASSIONATE BUSINESS  
UNITS “EXHIBITED **BETTER**  
**FINANCIAL**  
**PERFORMANCE...AND**  
THESE UNITS REALIZED  
**HIGHER** EMPLOYEE AND  
CUSTOMER **RETENTION...**”





**PRIORITIZING FEATURES**  
**COLLABORATING**  
**INTERVIEWING**  
**NAMING VARIABLES**

■ ■ ■



“IT’S SIMPLY NOT ENOUGH FOR INSTITUTIONS  
CREATED BY AND FOR MEN TO OPEN THEIR  
DOORS TO WOMEN. MUCH MORE NEEDS TO  
CHANGE—THE NORMS, THE PRACTICES, AND THE  
FACE OF ITS LEADERSHIP—TO CREATE A PLACE  
WHERE WOMEN CAN TRULY SUCCEED.”

TARA MOHR  
*Playing Big*



#COMPASSIONATECODING

@APRILWENSEL



Programming today is exactly what you'd expect to get by paying an isolated subculture of nerdy young men to entertain themselves for fifty years. You get a cross between Dungeons & Dragons and Rubik's Cube, elaborated a thousand-fold. I'm serious: Dungeons & Dragons requires mastery of an encyclopedia of minutiae; Rubik's Cube is a puzzle requiring abstract mathematical thinking. That is programming in a nutshell. As a bonus you also get a toxic culture of intellectual one-upmanship.

JONATHAN EDWARDS

*<https://alarmingdevelopment.org/?p=1173>*



#COMPASSIONATECODING

@APRILWENSEL



# NEW COMPASSIONATE TECH VALUES

- ▶ ~~EGO~~ HUMILITY
- ▶ ~~ELITISM~~ INCLUSION
- ▶ ~~COMPETITION~~ COOPERATION
- ▶ ~~BEING "SMART"~~ LEARNING
- ▶ ~~BEING A "ROCKSTAR"~~ BEING A MENTOR





I BELIEVE THAT YOU  
ARE ALL GOOD PEOPLE  
WHO DEEP DOWN  
VALUE INCLUSION



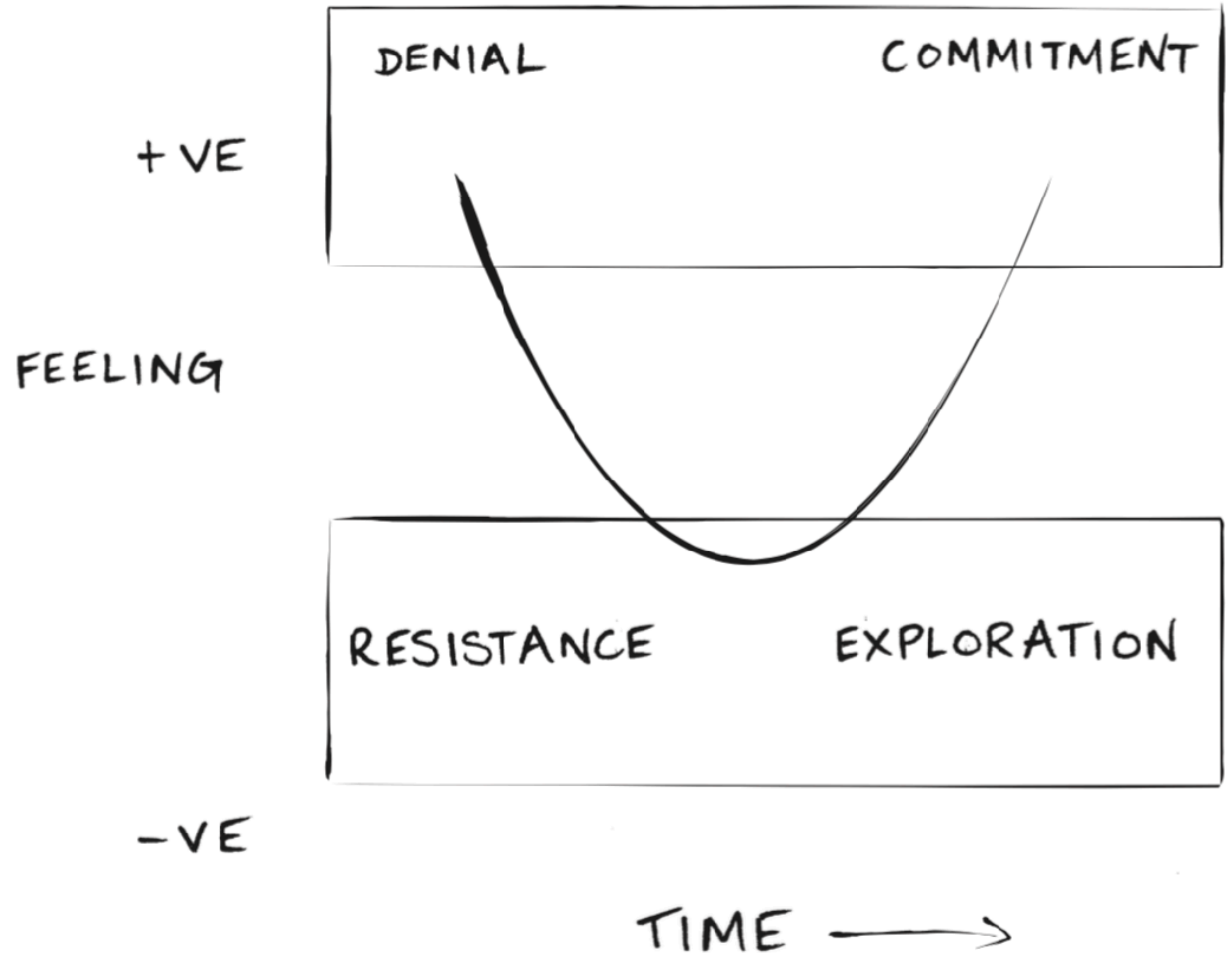


BECOMING MORE  
INCLUSIVE REQUIRES  
CHANGE





# CHANGE CAN BE HARD



Paul Morgan - *Putting Emotional Intelligence to Work*; based on work by Elisabeth Kubler-Ross



TIRED OF HEARING  
ABOUT DIVERSITY?



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@APRILWENSEL





[https://commons.wikimedia.org/wiki/File:Wood\\_warping.png](https://commons.wikimedia.org/wiki/File:Wood_warping.png)

Metaphor from Steven Sample's *Contrarian Guide to Leadership*



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@APRILWENSEL



# THE PETRIE MULTIPLIER

Ratio women to men: 1:4

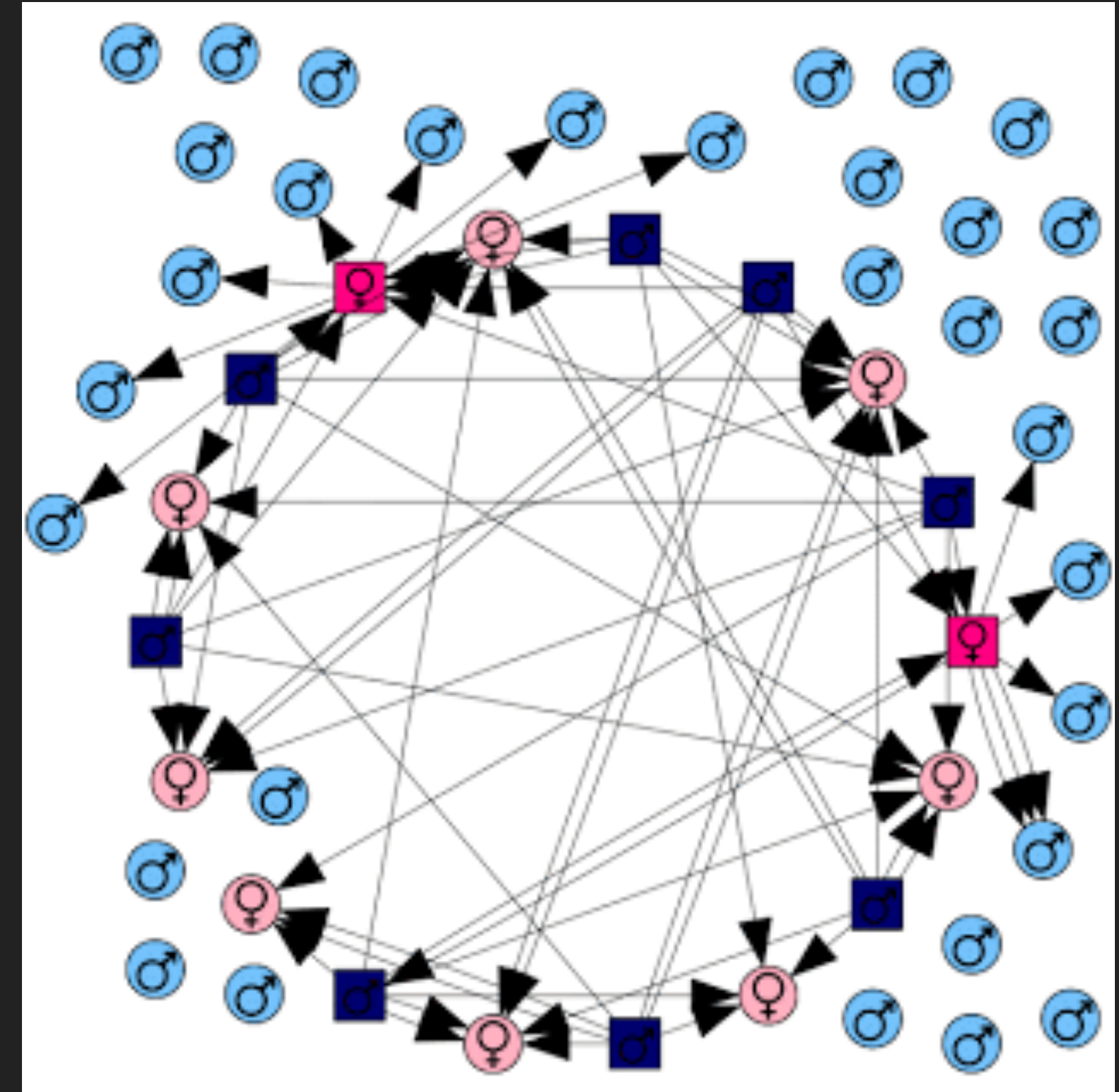
Each person equally likely to make inappropriate remarks to the other gender

4x as many men to make remarks

4x fewer women to receive them

So, women get 16x as many inappropriate remarks

$1:r \rightarrow r^2$  times



Karen Petrie; <http://blog.ian.gent/2013/10/the-petrie-multiplier-why-attack-on.html>





HAVING A CODE OF  
CONDUCT IS THE  
BARE MINIMUM





YOU AS AN INDIVIDUAL  
HAVE THE POWER TO  
BECOME AN AGENT OF  
COMPASSION



"I BELIEVE IT IS IN EVERYONE'S  
INTEREST THAT PEOPLE CHANGE, NOT  
IN ORDER TO AVOID PUNISHMENT,  
BUT BECAUSE THEY **SEE THE CHANGE  
AS BENEFITING THEMSELVES.**"

MARSHALL ROSENBERG  
*Nonviolent Communication*





COMPASSION IS GOOD FOR  
YOU



# BENEFITS OF COMPASSION

<https://greatergood.berkeley.edu/topic/compassion/definition#why-practice>

- ▶ JOY
- ▶ RESILIENCE
- ▶ PEACE OF MIND
- ▶ JOB SATISFACTION
- ▶ LOWER CHANCE OF BURNOUT







# THREE EXAMPLES OF PRACTICAL COMPASSION



#COMPASSIONATECODING

@APRILWENSEL



# THE PRIME DIRECTIVE

“REGARDLESS OF WHAT WE DISCOVER,  
WE UNDERSTAND AND TRULY BELIEVE  
THAT **EVERYONE DID THE BEST JOB THEY  
COULD**, GIVEN WHAT THEY KNEW AT THE  
TIME, THEIR SKILLS AND ABILITIES, THE  
RESOURCES AVAILABLE, AND THE  
SITUATION AT HAND.”

[https://retrospectivewiki.org/index.php?title=The\\_Prime\\_Directive](https://retrospectivewiki.org/index.php?title=The_Prime_Directive)







1

APPLY COMPASSION IN AND  
AROUND THE CODE



#COMPASSIONATECODING

@APRILWENSEL

in normal function call expressions and function-like macros. For example, this is good:

```
if (X) ...
for (I = 0; I != 100; ++I) ...
while (LLVMRocks) ...

somefunc(42);
assert(3 != 4 && "laws of math are failing me");

A = foo(42, 92) + bar(X);
```

and this is bad:

```
if(X) ...
for(I = 0; I != 100; ++I) ...
while(LLVMRocks) ...

somefunc (42);
assert (3 != 4 && "laws of math are failing me");

A = foo (42, 92) + bar (X);
```

<https://llvm.org/docs/CodingStandards.html>





**BINARY THINKING**  
**BLOCKS EMPATHY**



AVOID  
GOOD/BAD  
LANGUAGE





Wrong:

```
// In Something.h:  
  
/// Something - An abstraction for some complicated thing.  
class Something {  
public:  
    /// fooBar - Does foo and bar.  
    void fooBar();  
};  
  
// In Something.cpp:  
  
/// fooBar - Does foo and bar.  
void Something::fooBar() { ... }
```

Correct:

```
// In Something.h:  
  
/// An abstraction for some complicated thing.  
class Something {  
public:  
    /// Does foo and bar.  
    void fooBar();  
};  
  
// In Something.cpp:  
  
/// Builds a B-tree in order to do foo. See paper by...  
void Something::fooBar() { ... }
```

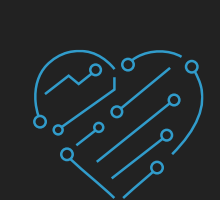
<https://llvm.org/docs/CodingStandards.html>



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**AVOID  
RIGHT/WRONG  
LANGUAGE**





**“YOU’RE DOING IT  
WRONG...”**



In general, we strive to reduce indentation wherever possible. This is useful because we want code to fit into 80 columns without wrapping horribly, but also because it makes it easier to understand the code. To facilitate this and avoid some insanely deep nesting on occasion, don't indent namespaces. If it helps readability, feel free to add a comment indicating what namespace is being closed by a `}`. For example:

<https://llvm.org/docs/CodingStandards.html>





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<https://llvm.org/docs/CodingStandards.html>



1. When writing C code: Obviously if you are writing C code, use C style comments.

<https://llvm.org/docs/CodingStandards.html>





OBVIOUS TO  
WHOM?



Poorly-chosen names can mislead the reader and cause bugs. We cannot stress enough how important it is to use *descriptive* names. Pick names that match the semantics and role of the underlying entities, within reason. Avoid abbreviations unless they are well known. After picking a good name, make sure to use consistent capitalization for the name, as inconsistency requires clients to either memorize the APIs or to look it up to find the exact spelling.

<https://llvm.org/docs/CodingStandards.html>





INSTEAD OF JUST  
FOLLOWING “BEST  
PRACTICES,” THINK ABOUT  
MINIMIZING SUFFERING



Wrong:

```
// In Something.h:

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class Something {
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// In Something.cpp:

// Builds a B-tree in order to do foo. See paper by...
void Something::fooBar() { ... }
```

<https://llvm.org/docs/CodingStandards.html>





# AVOID DERIVATIVES OF FUBAR



# AVOID RTFM AND THE ASSOCIATED ATTITUDE

<https://llvm.org/docs/Contributing.html>



#COMPASSIONATECODING

@APRILWENSEL





MEDIA

SERVICES

BLOG

SHOP

WORK WITH US

# It's Time to Retire "RTFM"

<https://compassionatecoding.com/blog/2019/4/17/its-time-to-retire-rtfm>



#COMPASSIONATECODING

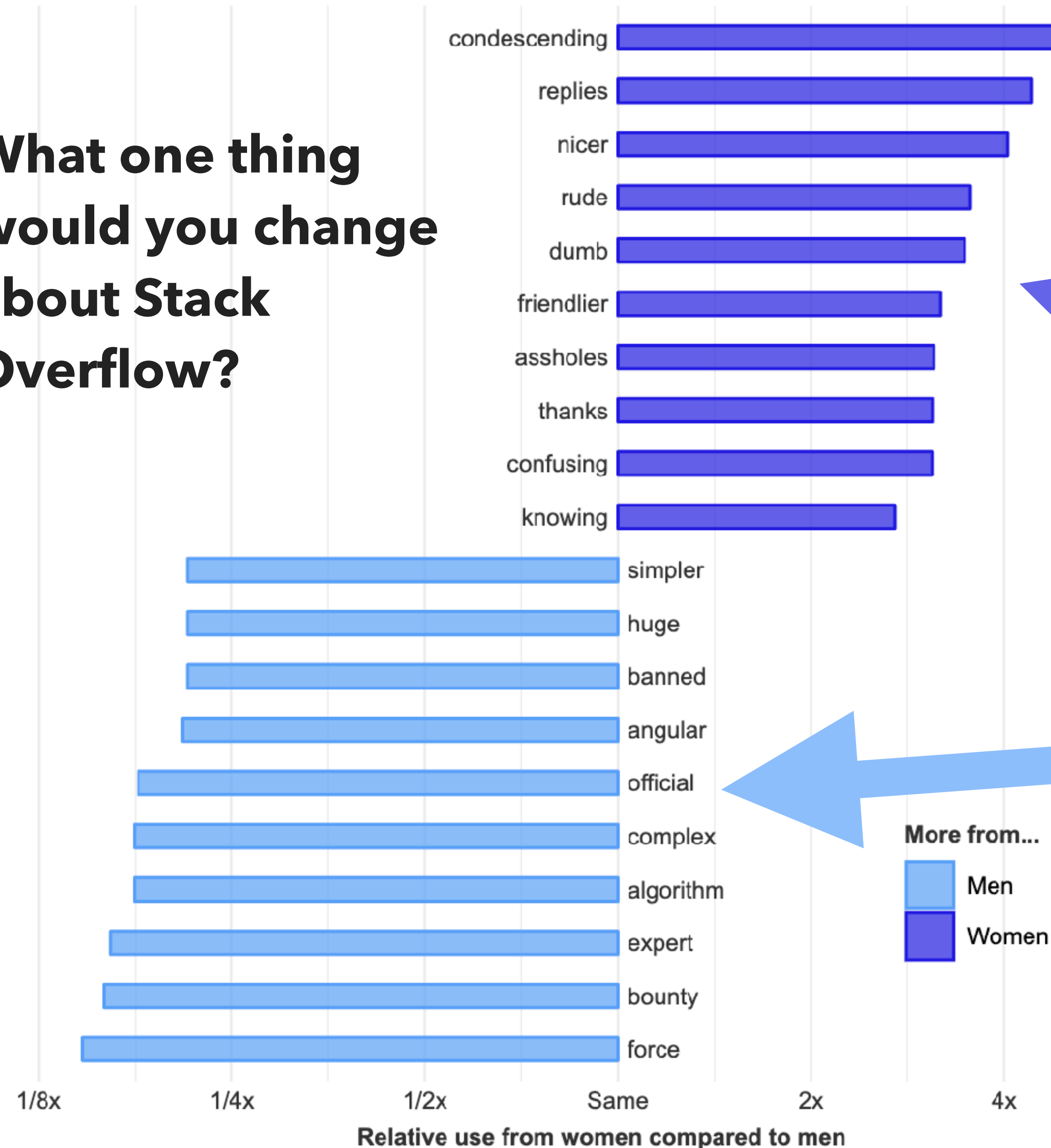
@APRILWENSEL

# What one thing would you change about Stack Overflow?

<https://insights.stackoverflow.com/survey/2019#community>

**Women want more kindness in communication**

**Men want changes to points algorithm**







1

APPLY COMPASSION IN AND  
AROUND THE CODE



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# TOPPLE THE TYRANNY OF “TECHNICAL”



#COMPASSIONATECODING

@APRILWENSEL



**“TECHNICAL” > “NON-TECHNICAL”**



**“TECHNICAL” > “NON-TECHNICAL”**

**??????????**





**“HARD” SKILLS > “SOFT” SKILLS**

**??????????**







# WHY DO PROJECTS FAIL?

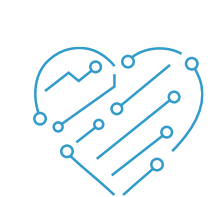
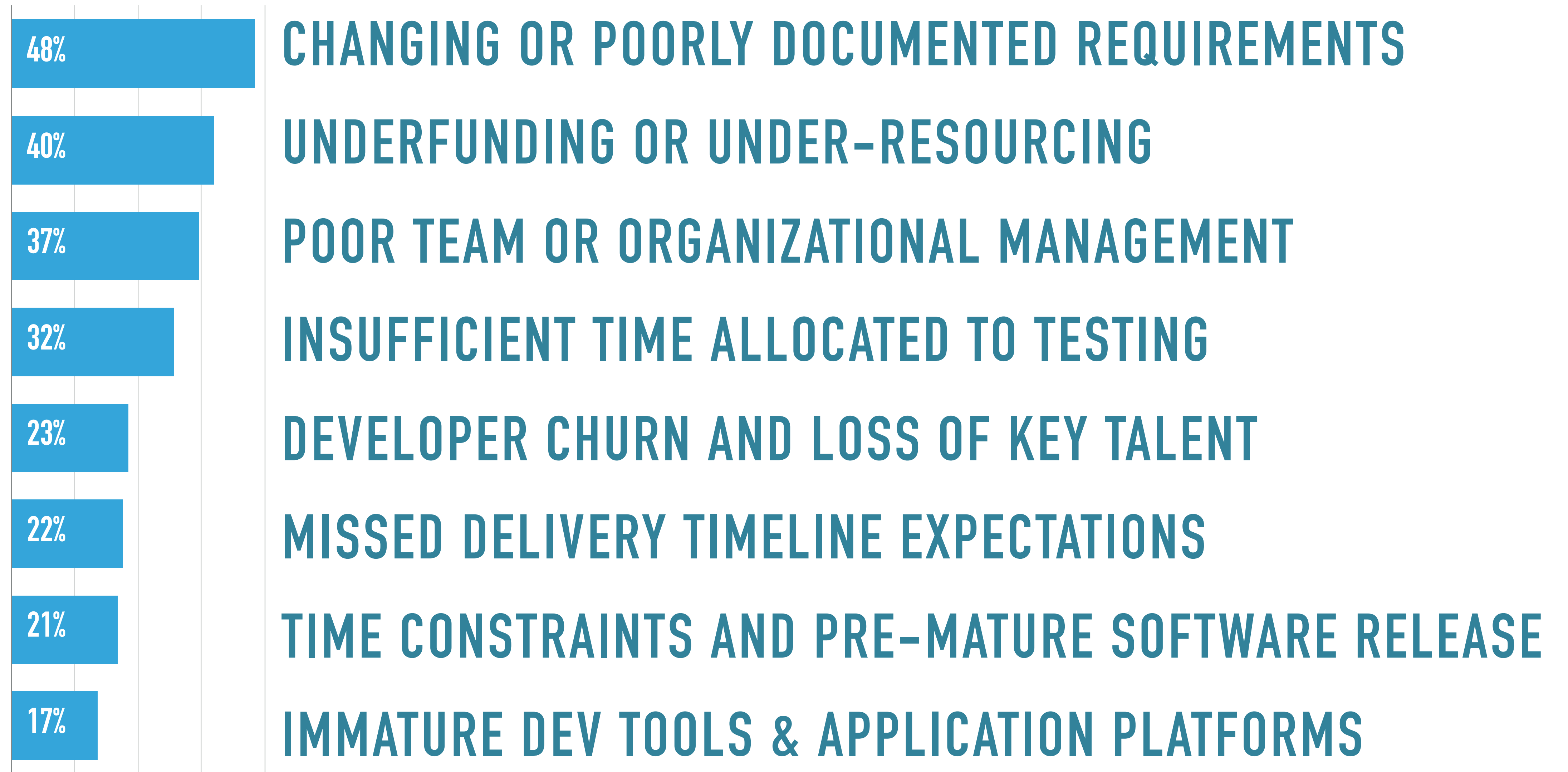


#COMPASSIONATECODING

@APRILWENSEL

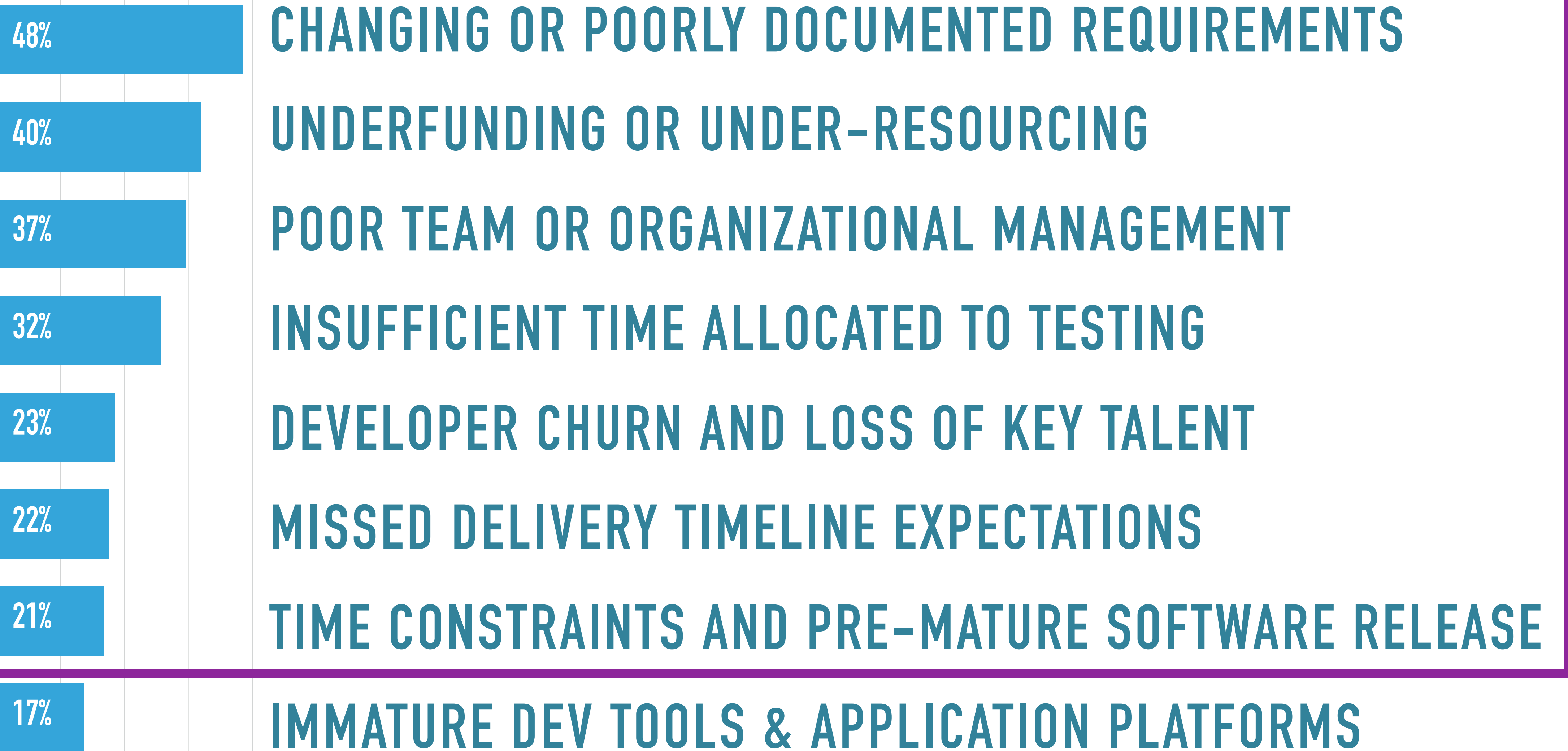


# WHY SOFTWARE PROJECTS FAIL

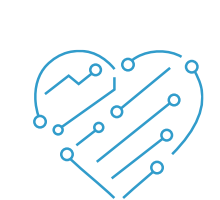


# WHY SOFTWARE PROJECTS FAIL

Human Problems



<https://www.developersalliance.org/developer-insights-report-2015/>



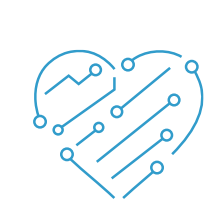
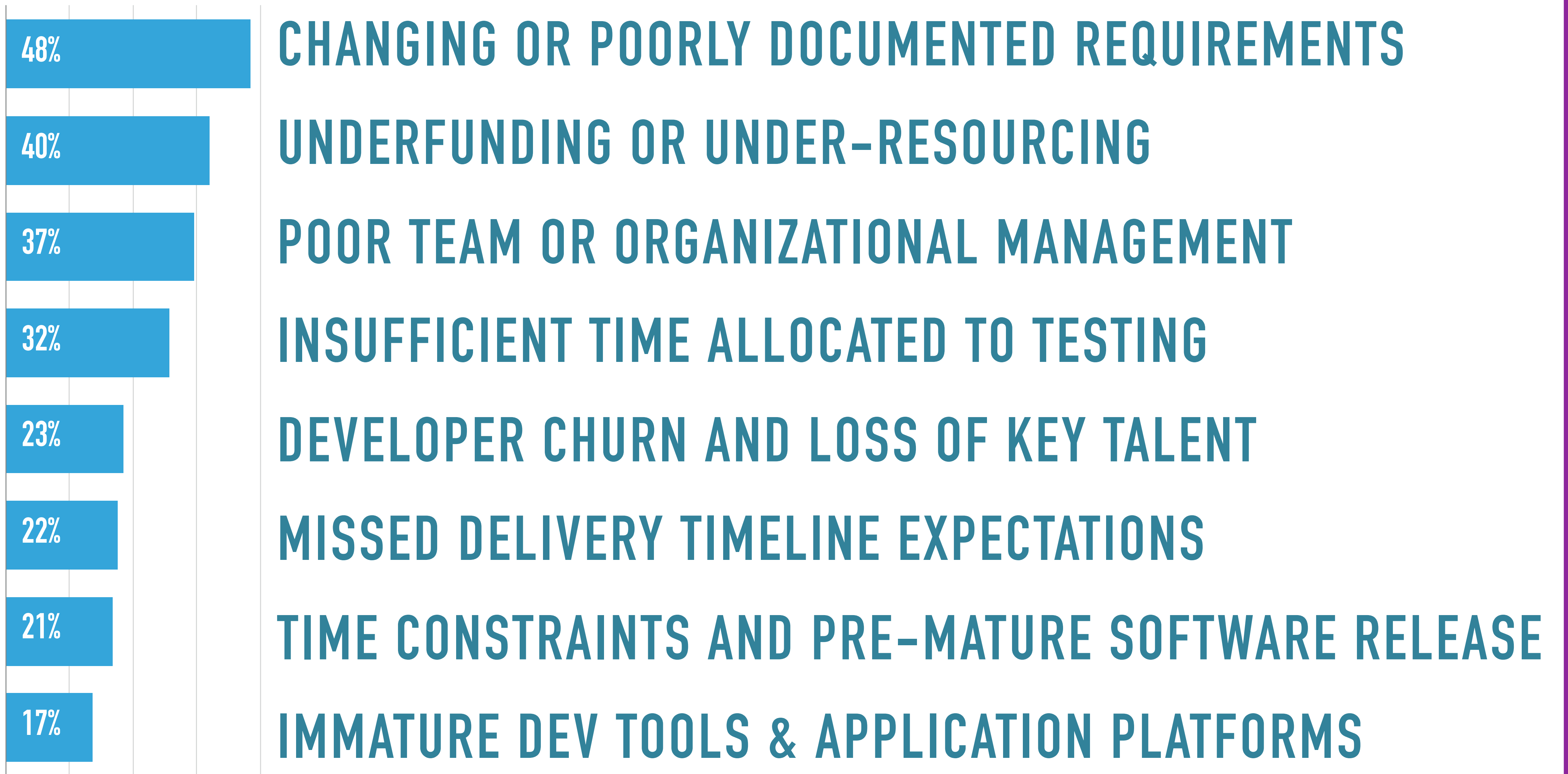
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# WHY SOFTWARE PROJECTS FAIL

Human Problems





**ALL SOFTWARE  
PROBLEMS  
ARE ACTUALLY  
HUMAN  
PROBLEMS**



**#COMPASSIONATECODING**

**@APRILWENSEL**



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# If You Can Use a Fork, You're "Technical"

<https://compassionatecoding.com/blog/2019/4/17/if-you-can-use-a-fork-youre-technical>



#COMPASSIONATECODING

@APRILWENSEL

**“SHE DOESN'T  
SEEM TECHNICAL  
ENOUGH...”**





**“TECHNICAL” IS  
CONNECTED TO  
DEVELOPER  
STEREOTYPES**



OBSESSION WITH  
“STAYING TECHNICAL”  
LEADS TO ODD  
BEHAVIOR





**“I’M JUST NOT  
TECHNICAL...”**



THE FALSE TECHNICAL/  
NON-TECHNICAL  
DIVISION LIMITS OUR  
POTENTIAL

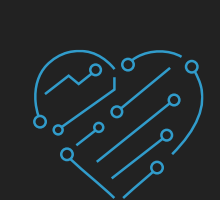




THE FALSE TECHNICAL/NON-  
TECHNICAL DIVISION  
PREVENTS US FROM  
DISCUSSING IMPORTANT  
PROBLEMS IN OUR  
COMMUNITIES



WHY ISN'T THIS TALK  
PART OF THE MAIN  
DEVELOPER'S MEETING?





What can you can expect at an LLVM Developers' Meeting?

### **Technical Talks**

These 20-30 minute talks cover all topics from core infrastructure talks, to project's using LLVM's infrastructure. Attendees will take away technical information that could be pertinent to their project or general interest.

### **Tutorials**

Tutorials are 50-60 minute sessions that dive down deep into a technical topic. Expect in depth examples and explanations.



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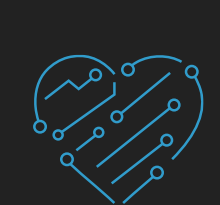




THIS IS A  
TECHNICAL TALK!



INSTEAD OF “TECHNICAL”  
OR “NON-TECHNICAL,”  
SAY WHAT YOU REALLY  
MEAN





INSTEAD OF  
“SHE'S TECHNICAL,”  
TRY  
“SHE CODES”



INSTEAD OF  
“NON-TECHNICAL SKILLS”  
TRY  
“CATALYTIC SKILLS”





a non-technical introduction to compiler construction.

<https://compilers.iecc.com/crenshaw/>



a non-technical introduction to compiler construction.

*"a beginner's guide..."*

*"an approachable introduction..."*

*"a gentle introduction..."*

<https://compilers.iecc.com/crenshaw/>







# TOPPLE THE TYRANNY OF “TECHNICAL”



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**TAKE GOOD CARE OF YOURSELF**



**#COMPASSIONATECODING**

**@APRILWENSEL**





#COMPASSIONATECODING

@APRILWENSEL



# PRACTICE SELF-COMPASSION



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I'm an idiot

Mcdostone committed to [Mcdostone/basics-web-apps](#) 3 days ago



b88149e



I'm an idiot

AverageMarcus committed to [AverageMarcus/hackathons-uk-bot](#) 10 days ago



fa231aa



I'm an idiot

MacLeodMike committed to [MacLeodMike/puppet-puppetserver](#) 12 days ago



53ec7af



I'm an idiot

acdenisSK committed to [acdenisSK/kitty](#) 16 days ago



a952635



I'm an idiot

kayoslab committed to [kayoslab/swt-drk-stockManagement](#) 16 days ago



31e0a75



I'm an idiot.

Zuhayr committed to [Yonaguni/EuropaStation](#) 19 days ago



b8f73ae



I'm an idiot

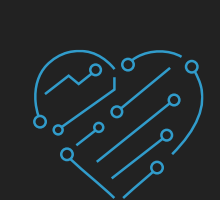
cdorsey committed to [cdorsey/organicbot](#) 18 days ago



876f11a



IF WE'RE NOT KIND  
TO OURSELVES, IT'S  
HARD TO BE KIND TO  
OTHERS





"STRESS HORMONES THAT CIRCULATE CHRONICALLY IN OUR BODIES MAY BE TEMPORARILY ENERGIZING, BUT OVER TIME THEY PROMPT SYMPTOMS SUCH AS HYPERACTIVITY, AGGRESSIVENESS, IMPATIENCE, IRRITABILITY, ANGER, SELF-ABSORPTION AND INSENSITIVITY TO OTHERS."

JIM LOEHR & TONY SCHWARTZ  
*The Power of Full Engagement*



"...SOMETIMES YOU WILL REMEMBER  
THAT...YOU HAVE BEHAVED UNKINDLY AND  
INCONSIDERATELY. AT THIS POINT...**HAVE  
COMPASSION FOR YOURSELF**, SMILE WRYLY  
AT YOUR OMISSION, AND RESOLVE TO DO  
BETTER TOMORROW."

KAREN ARMSTRONG  
*Twelve Steps to a Compassionate Life*



#COMPASSIONATECODING

@APRILWENSEL



**DON'T BE AFRAID TO  
ADMIT MISTAKES – WE'RE  
ALL BIASED**



# FOCUS ON GROWTH



#COMPASSIONATECODING

@APRILWENSEL



# SPECIAL NOTE TO THE UNDERREPRESENTED



#COMPASSIONATECODING

@APRILWENSEL



**TAKE GOOD CARE OF YOURSELF**



**#COMPASSIONATECODING**

**@APRILWENSEL**





1. APPLY COMPASSION IN AND AROUND THE CODE
2. TOPPLE THE TYRANNY OF “TECHNICAL”
3. TAKE GOOD CARE OF YOURSELF





PROMOTING INCLUSION IS  
**NOT LOWERING THE BAR;**  
IT'S REALIZING THAT WE'VE  
BEEN MISSING OUT ON  
DIVERSE STRENGTHS AND  
DECIDING TO FIX THAT







#COMPASSIONATECODING

@APRILWENSEL



**WHY ISN'T THIS TALK PART  
OF THE MAIN DEVELOPER'S  
MEETING?**





**“BECAUSE THAT’S FOR  
TECHNICAL TALKS.”**



"IF IT IS NOT TEMPERED BY  
COMPASSION AND EMPATHY, REASON  
CAN LEAD MEN AND WOMEN INTO A  
MORAL VOID."

KAREN ARMSTRONG  
*Twelve Steps to a Compassionate Life*



#COMPASSIONATECODING

@APRILWENSEL



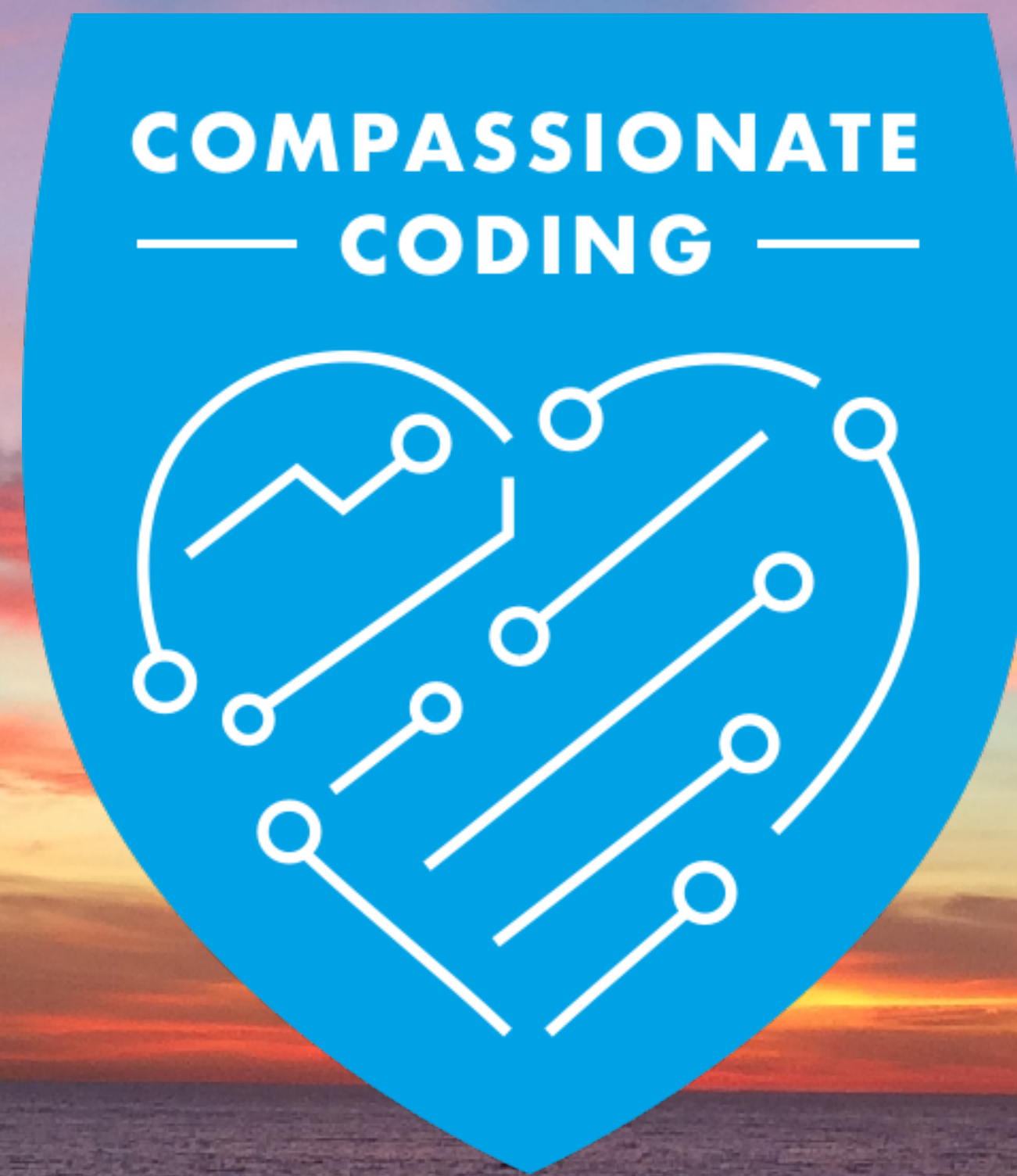
WHAT WILL YOU DO  
ABOUT IT?





# THANK YOU!

✉ NEWSLETTER SIGN-UP: [COMPASSIONATECODING.COM](https://compassionatecoding.com)



@COMPASSIONCODE

@APRILWENSEL