

+ 23

# Coping With Other People's Code

LAURA SAVINO



**Cppcon**  
The C++ Conference

20  
23

October 01 - 06

**Laura Savino, software  
engineer on Photoshop.**

Adobe



# Upcoming Adobe Speakers

- Thursday 4:45pm, Marcos Slomp  
"Tracy: A Profiler You Don't Want To Miss"
- Friday 1:30pm, Sean Parent & David Abrahams  
"Better Code: Contracts"
- Friday 2:45pm, David Sankel  
"Better Code: Validity"

# Coping with Other People's Code

Adobe



# my craftsman house



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# my craftsman house



my craftsman house

old-growth cedar siding

my craftsman house

**abate what you can,  
encapsulate the rest**

# post-conference re-entry

letdown



post-conference re-entry

# Coping with Other People's Code

post-conference re-entry

coping is not rewriting 100% to your  
own tastes

# triage

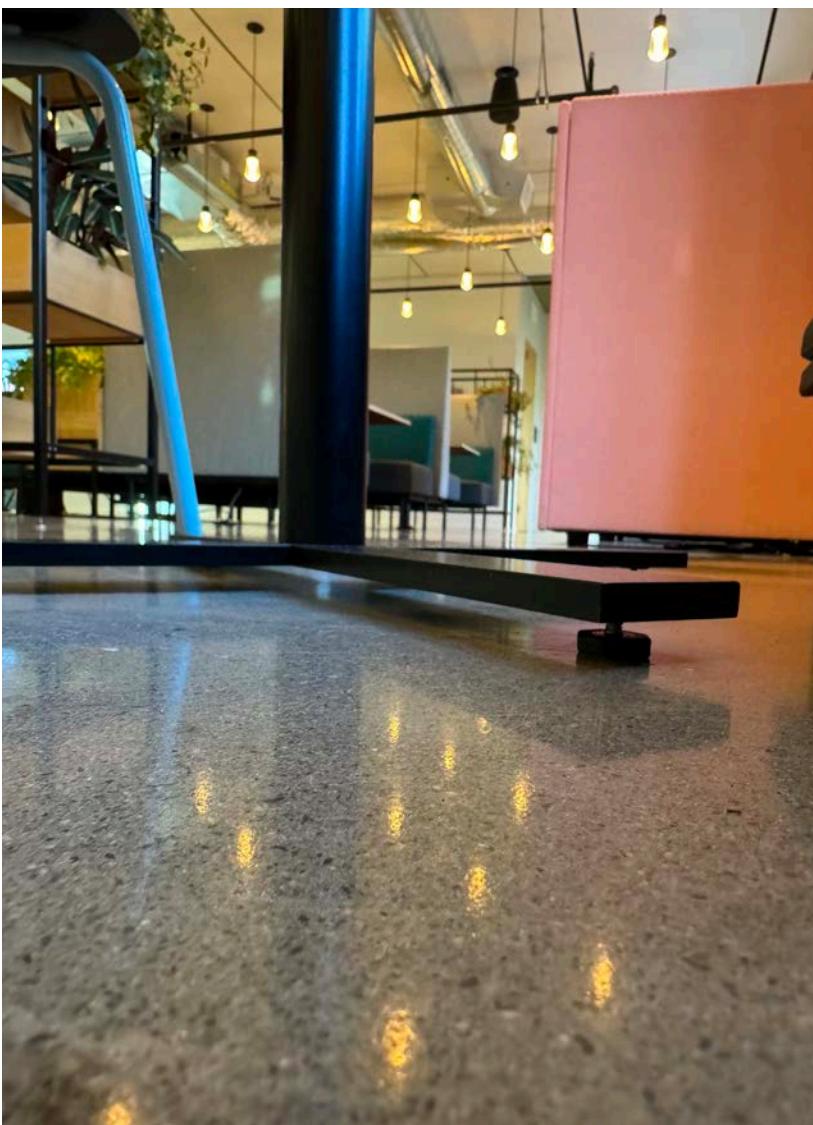
# pragmatic abatement



triage

cafe table adjustment

# triage



triage

to the rescue!

triage

do not drop the baby

# coping over time

## coping lasts your entire career



coping over time

frequency table

A background image featuring numerous clear, iridescent bubbles of various sizes scattered across a light gray surface. Some bubbles are clustered together, while others are isolated. The bubbles reflect light, creating a rainbow-like glow on their surfaces.

**early career**

# early career: fear

"Am I too dumb for this?"



fear

"Fine. What should I do next?"

# early career: belonging

"Should I even be here?"



belonging

cues of belonging

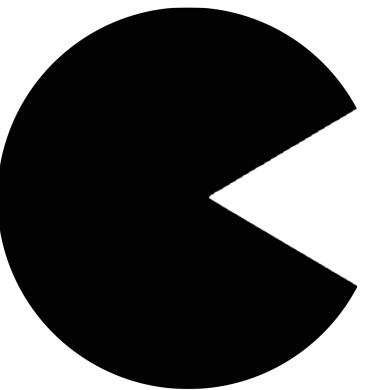
# belonging

"overall belonging scores predict how productive they report being, how understood they feel, and how likely they are to say that they also do things like **speak up when they have a new solution**, jump in and help fix someone else's mess, and **pass their learnings along to others**"

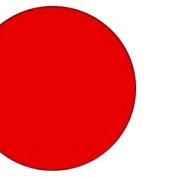
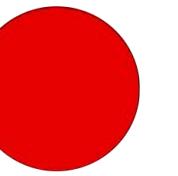
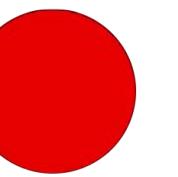
— Dr Cat Hicks, "Sense of Belonging and Software Teams", [drcathicks.com](http://drcathicks.com)

belonging

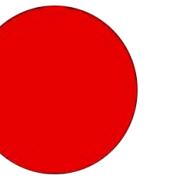
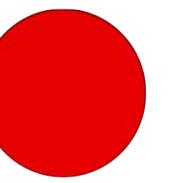
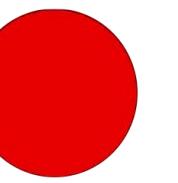
pacman conversation circles



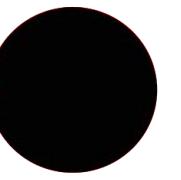
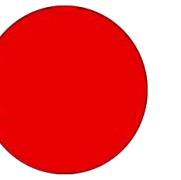
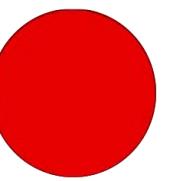
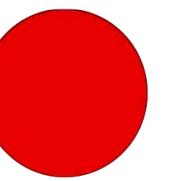
# belonging



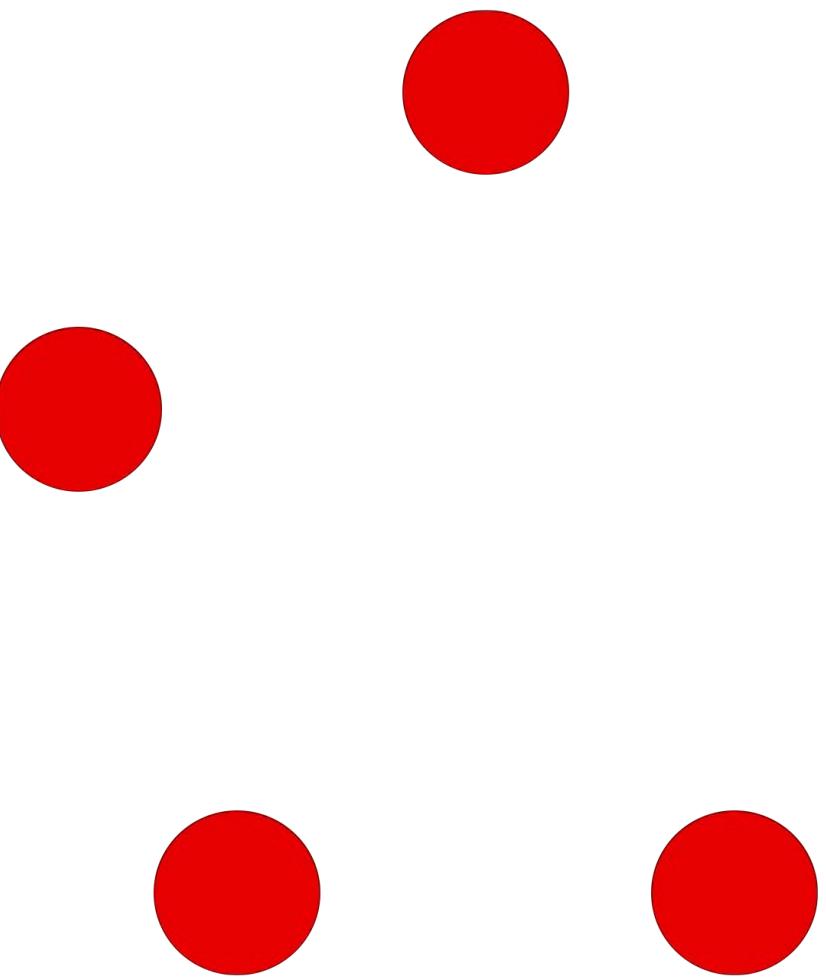
# belonging



# belonging



# belonging



belonging

is unpalatable code a sign that you do  
not belong?  
**(no)**

belonging

**beliefs in belonging impact behavior,  
which impacts relationships,  
which impacts outcomes**

# belonging

"Understanding everyday adversities as normal challenges that can be overcome"<sup>3</sup>

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<sup>3</sup>(Walton, G. M., & Brady, S. T. (2017). The many questions of belonging. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), Handbook of competence and motivation: Theory and application (2nd ed., pp. 272–293). Guilford.)

belonging

is this a tool? or an identity?

belonging

find someone who'll meet you where  
you are

belonging

expect an adjustment period

belonging

experts effectively respond to errors

belonging

look over someone's shoulder and  
learn new behaviors

belonging

look over someone's shoulder and  
recognize your own skill

# belonging

look over someone's shoulder and  
see who and how they ask for help

A background of numerous clear, iridescent bubbles of various sizes, some clustered together, against a light gray background.

**mid career**

# mid-career: frustration

"I dislike this code and can't change it...  
for Reasons"



# frustration

frustration strategy:  
**"anyone can fix anything"**

# frustration

frustration strategy:  
**"anyone can fix anything"**  
(is not always actionable)

frustration

choose to let it go

# frustration

**serenity** to accept the things I cannot change  
**courage** to change the things I can  
**wisdom** to know the difference

# frustration

accept the things I **decided not to change**

# frustration

I keep seeing these patterns and...  
**they won't let me change them**

# frustration

I keep seeing these patterns and...  
**I've chosen not to address them**

# frustration

I keep seeing these patterns and  
I've chosen not to address them because...

**I really don't want to get into a  
long drawn-out debate right now**

# frustration

I keep seeing these patterns and  
I've chosen not to address them because  
I really don't want to get into a  
long drawn-out debate right now...  
**because I'm putting my energy  
towards [x thing I care about] instead.**

# frustration

# downspouts



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# frustration

minor frustration is good, actually

# frustration

**"life's challenges and resulting distress are not the primary obstacles to well-being; instead, a focus on escaping these experiences prohibits values-based activity and diminishes well-being over time."**<sup>1</sup>

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<sup>1</sup>James D. Doorley, Fallon R. Goodman, Kerry C. Kelso, Todd B. Kashdan. "Psychological flexibility: What we know, what we do not know, and what we think we know"

# frustration

"Reducing distress is only functional to the extent that doing so facilitates the pursuit of **self-endorsed, meaningful, valued goals.**"<sup>1</sup>

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<sup>1</sup>James D. Doorley, Fallon R. Goodman, Kerry C. Kelso, Todd B. Kashdan. "Psychological flexibility: What we know, what we do not know, and what we think we know"

# frustration

"[Acceptance Commitment Therapy] promotes acceptance by training people to be aware of their thoughts and feelings, but to base their actions upon their values and goals: **not upon the vagaries of their internal events**"<sup>2</sup>

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<sup>2</sup>Bond, Frank W., and David Bunce. "The role of acceptance and job control in mental health, job satisfaction, and work performance."

# frustration

"notice the degree to which they have control in a given situation"<sup>2</sup>

---

<sup>2</sup> Bond, Frank W., and David Bunce. "The role of acceptance and job control in mental health, job satisfaction, and work performance."

# mid-career: belonging (reprise)

"These people don't care about the things I care about."



belonging (reprise)

You are augmenting the team with  
your values.

# belonging (reprise)

wibbleWobble();

# belonging (reprise)

```
//Wibbles the wobble.  
wibbleWobble();
```

belonging (reprise)

healthy tension

# belonging (reprise)

## purity vs pragmatism

# belonging (reprise)

Everyone likes to say "perfect is the enemy of the good" until they're using your database engine, then it's all "*why is this slow*" and "*what happened to my data*" gosh make up your minds

— Scott Perry ([numist@xoxo.zone](mailto:numist@xoxo.zone))

# belonging (reprise)

"X will cause Y, so let's do Z"

belonging (reprise)

respect the different roles



**burnout**

# exhaustion

"I feel used up at the end of the  
workday"



exhaustion

rest is existentially important

# exhaustion

use social capital & modeling to  
protect your rest time

exhaustion

mind the power dynamics

exhaustion

who gets to be part of consensus?

exhaustion

being home for bedtime is a hard-to-  
beat perk

exhaustion

men can fight sexism by taking real  
time off

# exhaustion

"sorry, got to go!"

exhaustion

be unapologetically afk.

# burnout: cynicism

"I don't think my work contributes anything significant."



cynicism

hack week for autonomy

# cynicism

"oh by the way, testers..."

cynicism

cross-functional relationships

# coping by rewriting

If you do break out the chainsaw...



rewriting

ownership of fallout

rewriting

focused PR

rewriting

make the dev-productivity case

rewriting

no shaming! be kind

# burnout: professional efficacy

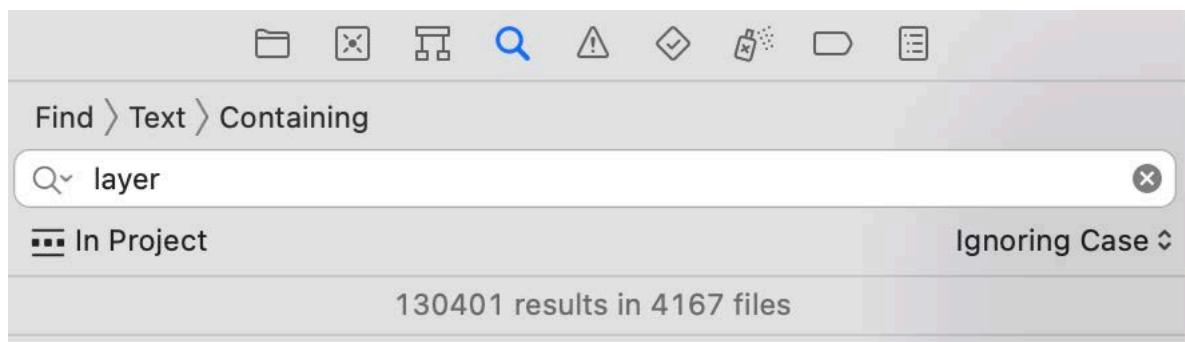
"At my work, I am confident that I am effective at getting things done".



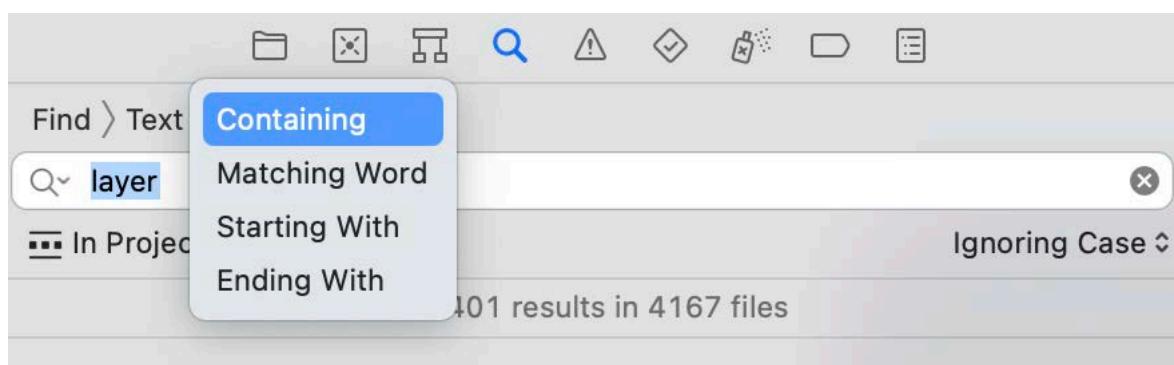
efficacy

navigation skills

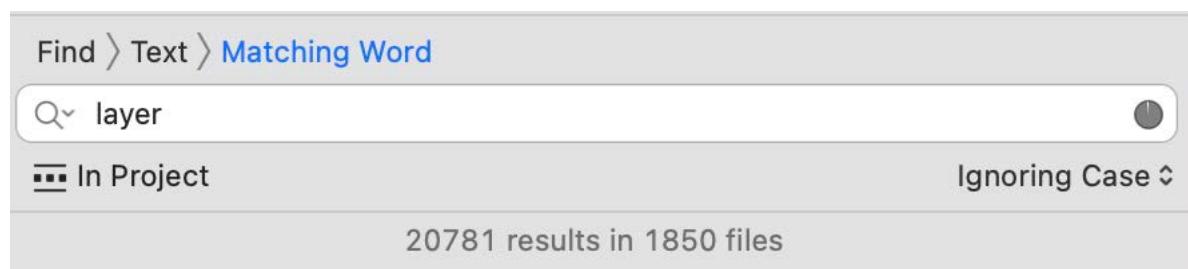
# efficacy



# efficacy

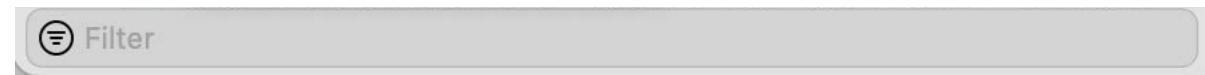


# efficacy



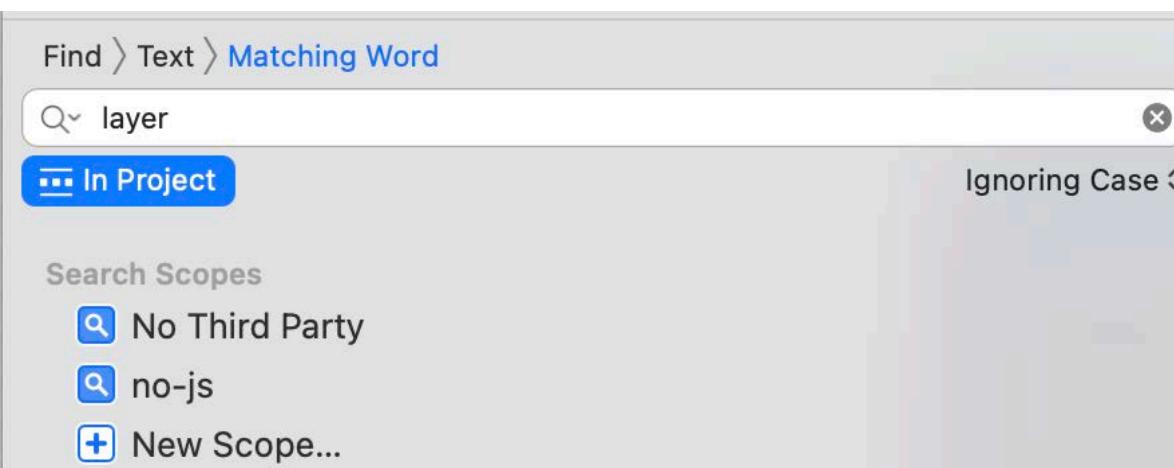
# efficacy

# filter



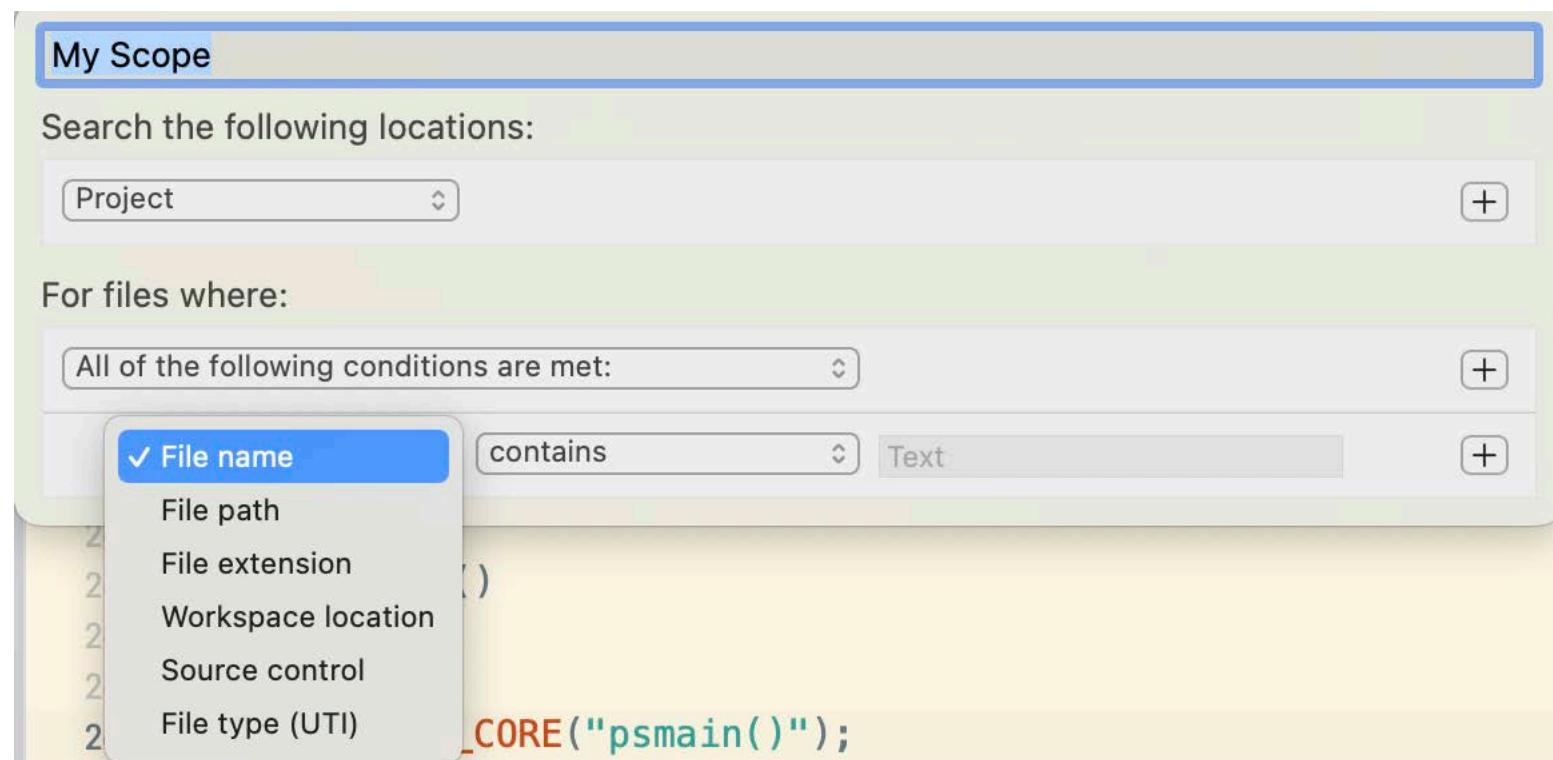
# efficacy

# search scopes



# efficacy

# search scopes



# efficacy

"recompiling takes forever and gets  
me out of the zone"

efficacy

get good at not recompiling

efficacy

use more advanced breakpoints

efficacy

write down all your hypotheses

efficacy

park on a downhill slope

# efficacy

START HERE:

- Fix compiler issues THEN rerun and:
- check whether x\_value propagated to y\_system
  - if not, add more logging to ABCClass (fooBar, bazBar, and destructor)
  - if so, watch where value is updated in y\_system

efficacy

get oriented

efficacy

hardware store

# burnout, outro

take burnout seriously.



A background image featuring numerous clear, iridescent bubbles of various sizes scattered across a light gray surface. Some bubbles are clustered together, while others are isolated. The bubbles reflect light, creating a rainbow-like glow on their surfaces.

**later career**

## later career: wistfulness

"why can't this be a Nice Codebase  
like everyone else's?"



wistfulness

make a well-functioning system  
function even better

# wistfulness

OH: “There are two kinds of companies - those with perfectly consistent architectures, and those that are still in business.”

— *Sarah Mei (@sarahmei@ruby.social)*

wistfulness

augmenting one apple tree

wistfulness

notice what works

## later career: influence

"They'll do it wrong if they change it –  
and I can stop them"



influence

deleting prod

influence

let the team learn

# later career: stage fright

"That's brilliant! You should submit a  
talk..."



stage fright

inspirational mediocrity

stage fright

no one talks to you on stage.

stage fright

fluid conversation starters

stage fright

belonging, re-reprise

A background image featuring numerous clear, iridescent bubbles of various sizes scattered across a light gray surface. Some bubbles are clustered together, while others are more isolated.

**takeaways**

takeaways

**look over a shoulder.**

# takeaways

look over a shoulder. **orient yourself and navigate.**

# takeaways

look over a shoulder. orient yourself and navigate.  
**chainsaw with kindness and precision.**

# takeaways

look over a shoulder. orient yourself and navigate.  
chainsaw with kindness and precision. **be gloriously  
and unapologetically afk.**

# takeaways

look over a shoulder. orient yourself and navigate.  
chainsaw with kindness and precision. be gloriously and  
unapologetically afk. **remove what you can,**  
**encapsulate the rest.**

# takeaways

look over a shoulder. orient yourself and navigate.  
chainsaw with kindness and precision. be gloriously and  
unapologetically afk. remove what you can,  
encapsulate the rest. **don't drop the baby.**

# takeaways

look over a shoulder. orient yourself and navigate.  
chainsaw with kindness and precision. be gloriously and  
unapologetically afk. remove what you can,  
encapsulate the rest. don't drop the baby. **leave the  
ladder in place, and your conversation circles open.**

# takeaways

look over a shoulder. orient yourself and navigate.  
chainsaw with kindness and precision. be gloriously and  
unapologetically afk. remove what you can,  
encapsulate the rest. don't drop the baby. leave the  
ladder in place, and your conversation circles open.

# takeaways



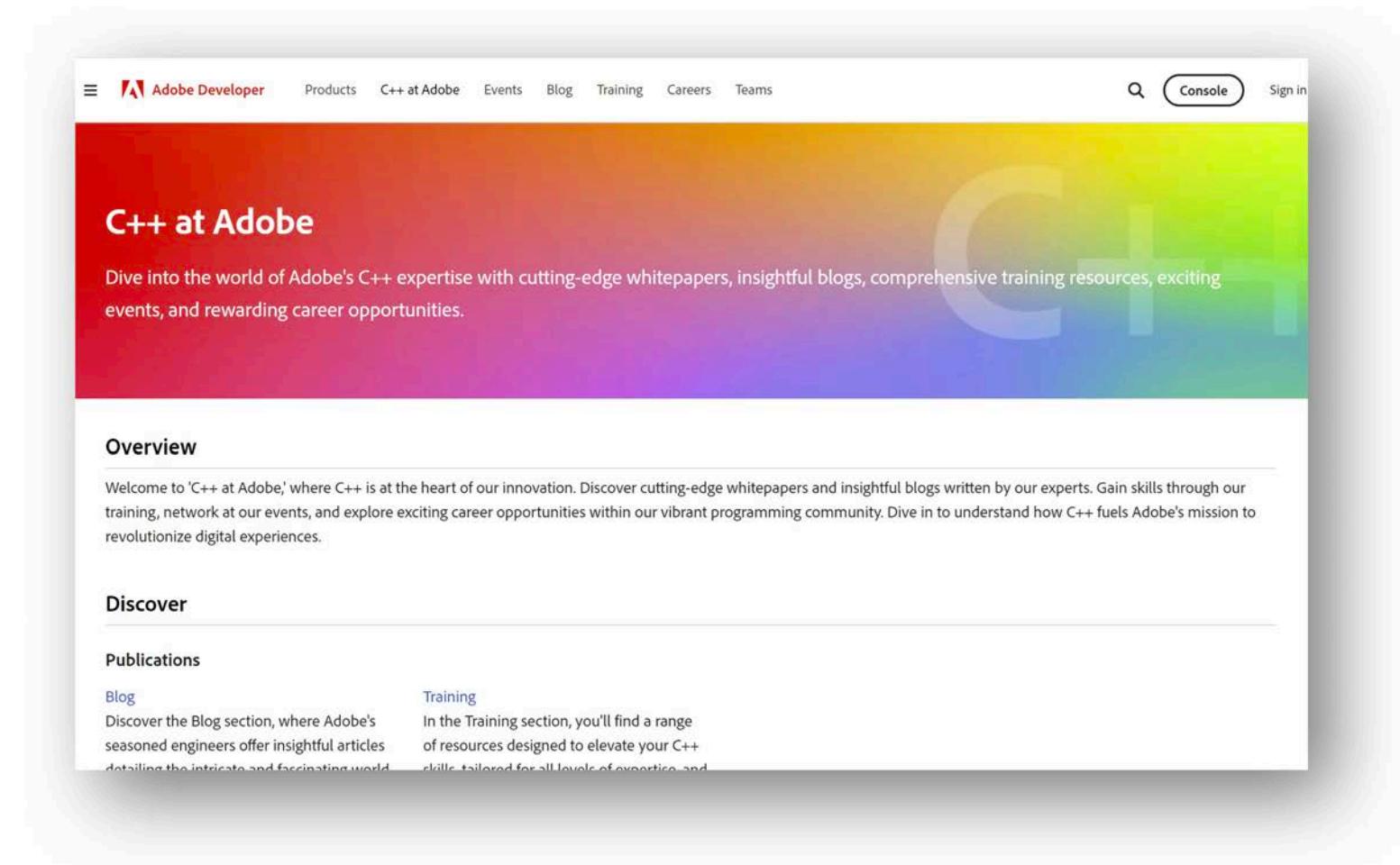
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A background of numerous clear, iridescent bubbles of various sizes, some clustered together, against a light gray background.

**thank you**

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