

WORKING ON WORDSMITHING

Katherine Daniels

Write/Speak/Code 2017



Katherine Daniels

@beerops

Infrastructure Ops Witch, Travis CI

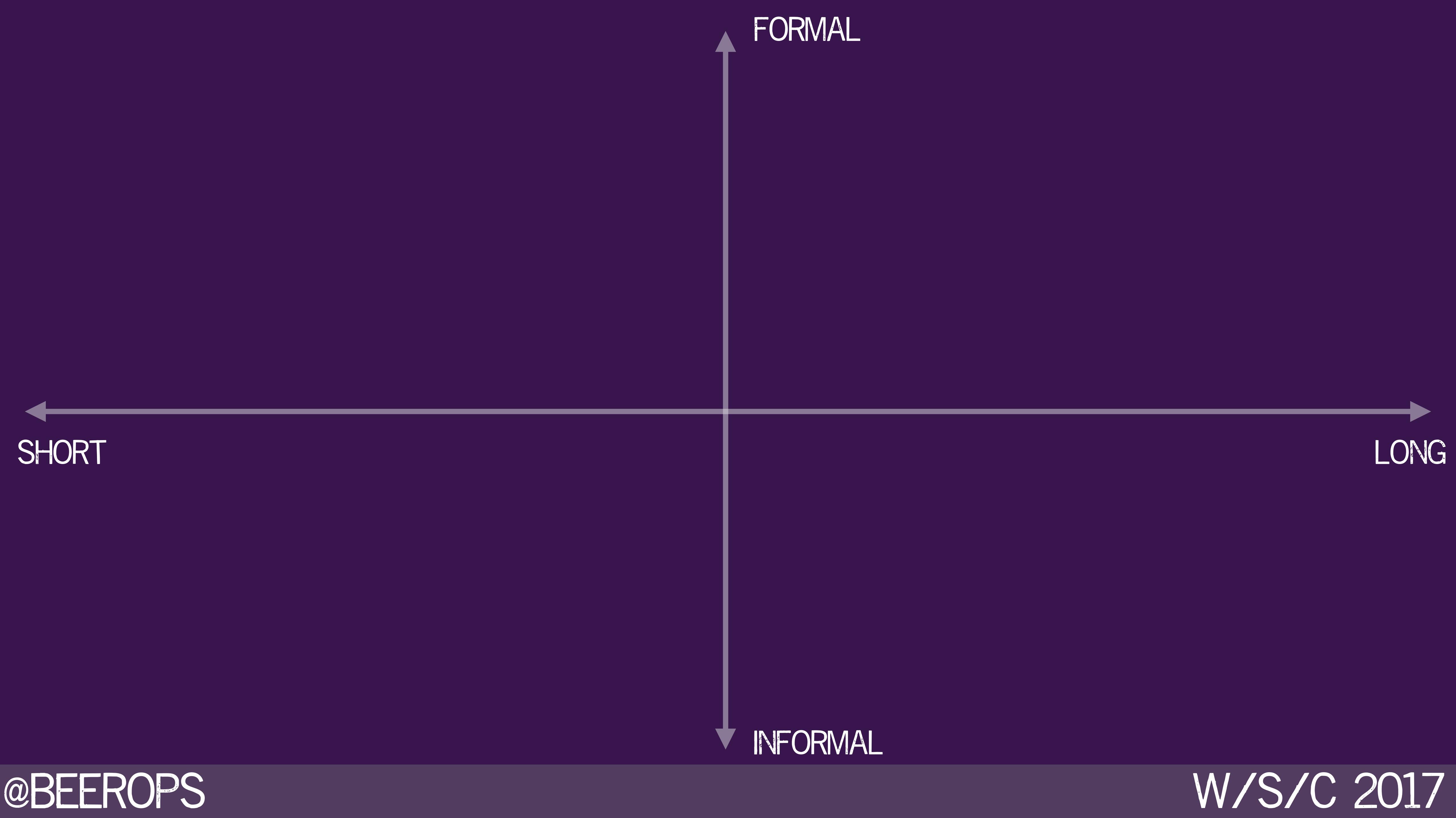
PROFESSIONAL WRITING

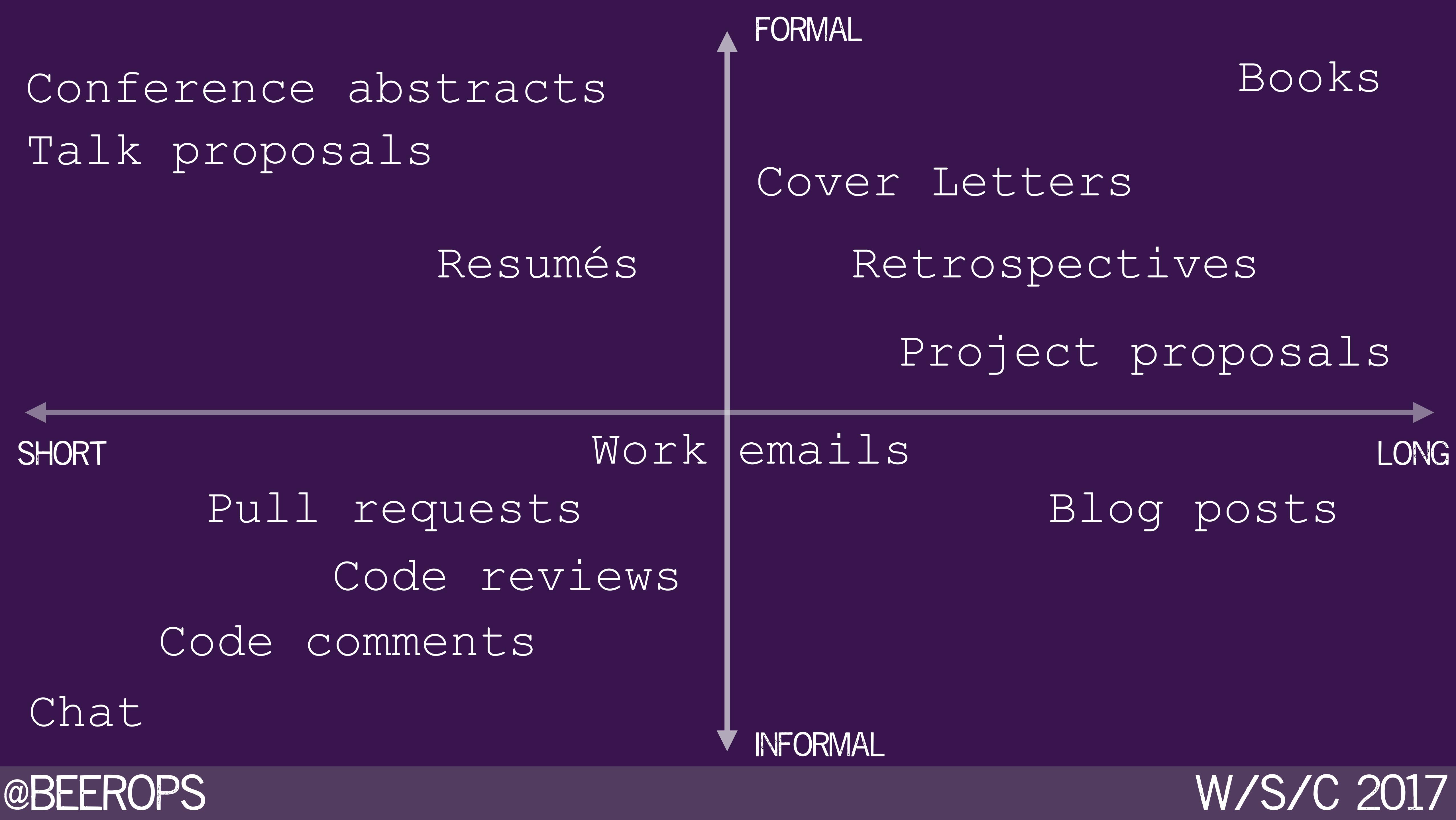
PROFESSIONAL \neq FORMAL

LET'S GET GOING.



WHAT DO WE WRITE?





GOOD WRITING PROVIDES USEFUL,
TIMELY INFORMATION THAT THE
READER NEEDS.

AGENDA

1
PREPARING:
IDENTIFYING
CONTENT

2
WRITING:
PROCESS
AND STYLE

3
REVIEWING:
FEEDBACK
AND EDITING

PREPARING: IDENTIFYING CONTENT

**CONTENT: WHAT ARE YOU
TRYING TO COMMUNICATE?**

Ask yourself:

**WHAT IS THE OUTCOME I
WANT FROM THE PEOPLE
WHO READ THIS?**

Ask yourself:

WHICH PEOPLE DO I
WANT (OR NEED) TO
READ THIS?

IDENTIFY YOUR AUDIENCE

Site unavailable

In [resolved](#), [Tech Updates](#) on April 11, 2016 by Laurie Denness Tagged: [Resolved](#)

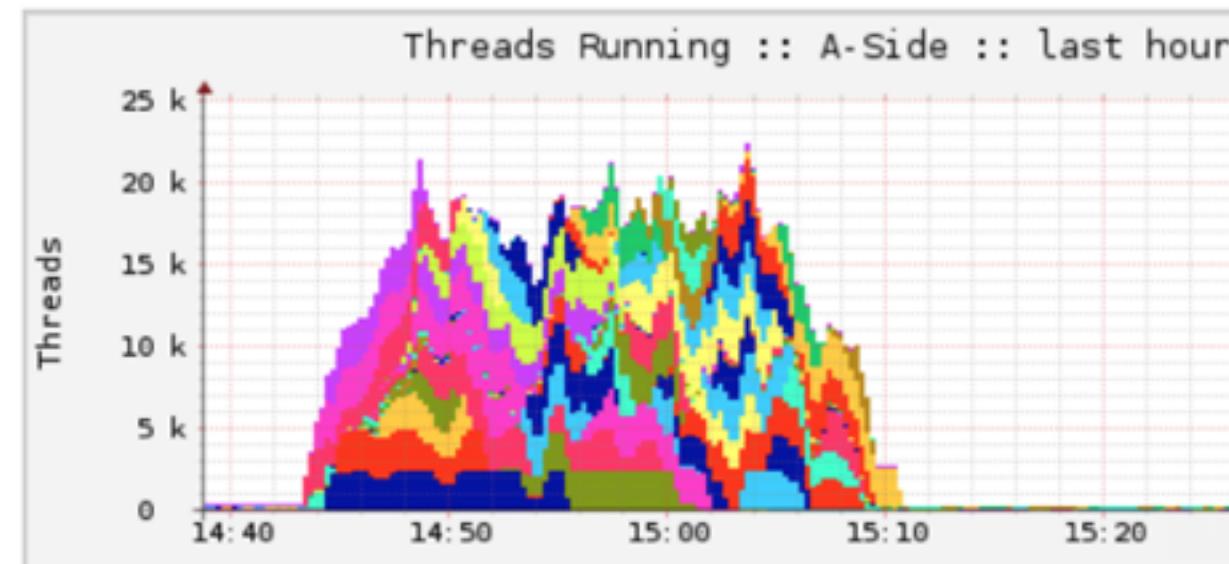
We're currently investigating an issue that is causing the site and mobile apps to be slow or unavailable. More updates coming

Update: We've isolated the issue and the site is recovering



Hey all,

We experienced a site-wide outage for about half an hour this morning. We identified the cause as being a set of TRUNCATE statements being issued to the shards. We first noticed when the site became unresponsive, with many ORM_LONG_QUERY errors in Supergrep. The shards experienced a dramatic increase in running threads during that time:



This was surprising as it seemed like most other ALTERs that we run every week. The difference here ended up being that we did not actually pull any shards out of the pool before running the statements as TRUNCATEs were previously believed to be 'cheap' due to the way MySQL handles table removal and creation.

TRUNCATE is a SQL command that drops and create a table atomically. Without using TRUNCATE, we would DROP and CREATE the table as one statement after the other, however, this would leave a small window where any reads and writes might fail.

While a DROP or TRUNCATE command is run, they remove entries to the tables being truncated from two places, the [Adaptive Hash Index](#) (an in-memory database for looking up things quickly) and the [Buffer Pool](#) (a LRU cache). In this scenario, when a DROP or TRUNCATE is executed, it acquires a global mutex on the Adaptive Hash Index. All other threads that may attempt to write to the AHI are blocked for the duration of the TRUNCATE.

We confirmed this with SHOW ENGINE INNODB STATUS which resulted in several semaphore waits here:

```
--Thread 140315402458880 has waited at btr0sea.c line 1495 for 0.0000 seconds the semaphore:
S-lock on RW-latch at 0x7fc565cb8a78 '&btr_search_latch_arr[i]'
a writer (thread id 140324291290880) has reserved it in mode exclusive
number of readers 0, waiters flag 1, lock_word: 0
Last time read locked in file row0sel.c line 3700
Last time write locked in file /builddir/build/BUILD/percona-server-5.5.43-37.2/storage/innobase/btr/btr0sea.c line 1601
```

Past work has gone into MySQL to make this safe for DROP, but that work has not been reproduced for TRUNCATE. There have been MySQL bugs reported this problem ([#68184](#), [#56696](#), [#80060](#)).

Based on understanding that TRUNCATE alone has problems, we will switch these SQL commands to run on servers that are out of rotation, much like how we perform ALTER statements.

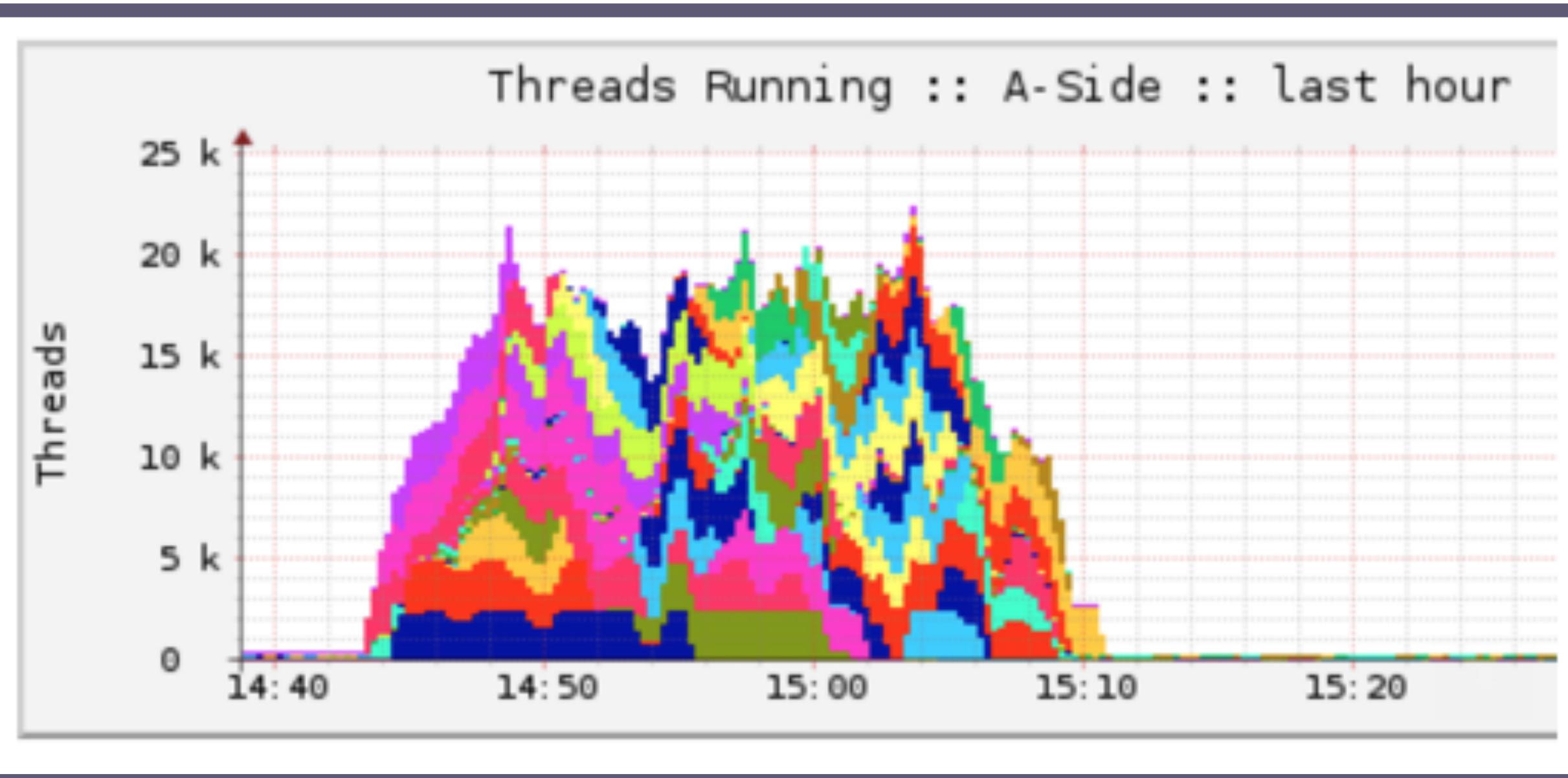
A big thanks to all who hopped in #warroom to help debug and remediate the issue - arie, jtinley, will_gallego, avleen, laurie, tristan, aclegg, gguida, and more.

Please feel free to drop by #mysql with any questions.

Cheers!

WOAH THAT'S A LOT OF TEXT!

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number of readers 0, waiters flag 1, lock_word: 0  
Last time read locked in file row0sel.c line 3700
```

WRITING: PROCESS AND STYLE

START WITH A SUMMARY
(OR A TL;DR)



me to Tech-All

8/1/16

tl;dr - if you make changes to Chef, please read on for instructions on how to use the new Chef deploy process!

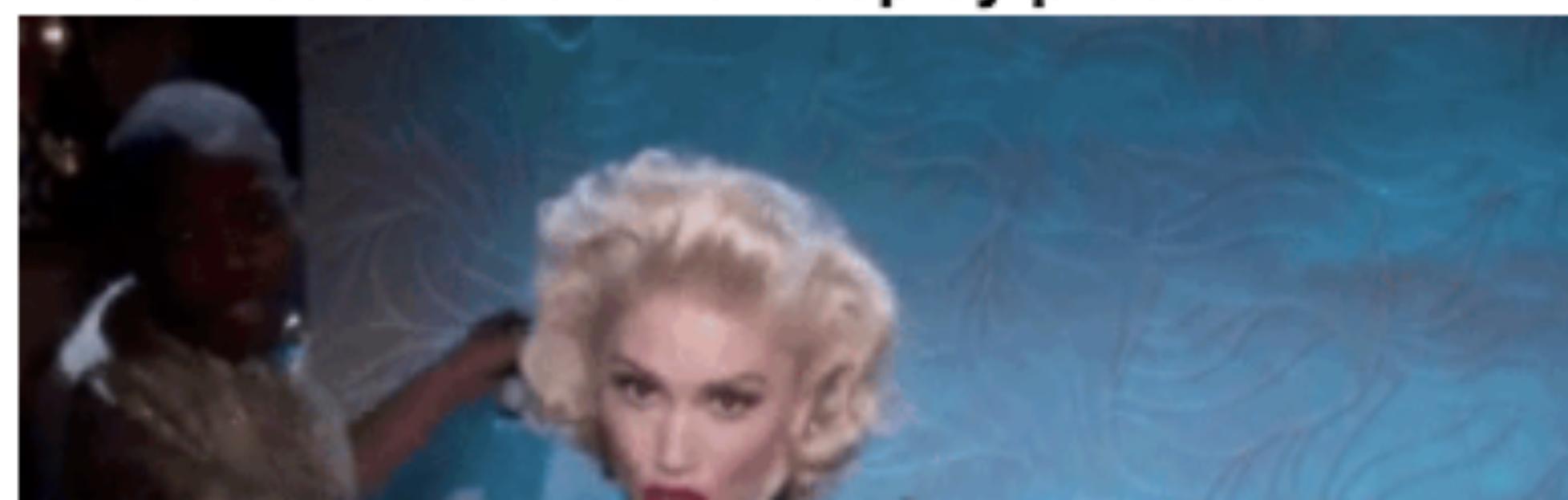
Hey everyone!

As the engineering org has grown, we've had a lot more people making changes to Chef. This is great, but it has meant that people ended up accidentally stepping on each other's toes more and more as we ran into limitations of our old Chef deploy process. If you've ever done the "ok, you push your change, then I'll push mine" dance or had to hunt someone down to ask them to push their Chef changes to git, you've felt this pain. To help with this, we are rolling out a new deployment workflow for Chef featuring Deployinator!

Great, what is the new process?

You can see [step-by-step documentation of the new deploy process here](#). One of the goals of this project was to make the Chef deploy process more in line with other deploy processes at Etsy so it will be easier to onboard new engineer who will be working with Chef.

Who should use the new deploy process?



CREATE AN OUTLINE

- Forewards
- Preface
 - (current preface story)
 - Who This Book is For
 - How This Book is Organized
 - Methodologies of Case Studies
 - How To Contact Us
 - Acknowledgements
- Part I - What is Devops
 - Chapter 1 - The Big Picture
 - Intro story
 - Value of stories
 - Katherine's Story
 - Jennifer's story
 - Stories in the book - case studies and shared personal stories
 - Chapter 2 - The History of Devops
 - Chapter 3 - Foundational Terminology and Concepts
 - Chapter 4 - Misconceptions and Anti-Patterns
 - Chapter 5 - What is Devops
 - (Revisiting The Big Picture?)
 - (introduce the compact)
 - (give our kickass, concise definition - this will be a short but impactful chapter)
- Part II - The Five Pillars of Effective Devops
 - Chapter 6 - Collaboration - Individuals Working Together
 - Chapter 7 - Hiring - Building a Team
 - Chapter 8 - Affinity - From Individuals to Teams
 - Chapter 9 - Tools - Accelerators of Culture
 - Chapter 10 - Scaling - Inflection Points, Navigating Change
- Part III - Crafting Your Devops Story
 - Chapter 11 - Individual Narratives
 - Chapter 12 - Organizational Narratives
 - Chapter 13 - Bridging Devops Cultures
 - (This will be everything currently in bridging that isn't explicitly either the individual or organizational stuff, mostly the 2 case studies and related sections)
- Conclusion
- Further Resources

- Acknowledgements
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BREAK CONTENT INTO SECTIONS

A close-up photograph of a black cat with bright yellow eyes. The cat is looking directly at the viewer with a slightly intense expression. Its fur is dark and shiny, and its ears are perked up. The background is blurred, showing some pink and brownish tones.

(PAY ATTENTION TO
ATTENTION SPANS)

pnaf is investigating why apache wasn't restarting cleanly

[04:32:18 PM EDT] < pnaf>: here's a log of httpd restart fail

[04:32:27 PM EDT] < jtinley>: wow IndexOptions

Lots of restarts as we figure out allllll the places where apache runs (hint: a lot)

[04:32:30 PM EDT] < adam_s>: restarted apache on graphite to get dashboards back at least

[04:32:31 PM EDT] < will_gallego>: might be a bit of a burp as the restarts work

[04:32:50 PM EDT] < jtinley>: PROCS CRITICAL: 0 processes with command name 'driveshaft'

[04:32:57 PM EDT] < jtinley>: payments-dsworker01.ny5

[04:33:01 PM EDT] < adam_s>: ok dashboards are back

[04:33:03 PM EDT] < jtinley>: Unsure how that would have been related

[04:33:18 PM EDT] < adam_s>: ah driveshaft and httpd are linked in systemd config

[04:33:52 PM EDT] < jimbo>: ci is unreachable since it's fronted by apache

[04:34:11 PM EDT] < jimbo>: try is too but is still reachable for some reason

[04:34:11 PM EDT] < keyur>: yup! that was from a PM

[04:34:29 PM EDT] < jtinley>: ?jiracreate OPS Add aggregate for 'Driveshaft process check'

[04:34:37 PM EDT] < ircat>: Ticket OPS-14375 - "Add aggregate for 'Driveshaft process check'"

[04:34:37 PM EDT] < ircat>: Reported by Jeremy Tinley, Status: New, assigned to nobody!

will_gallego DSHs out an apache restart

At this point we were limping along on like 10 boxes that for some reason hadn't been upgraded/installed yet. We had discovered that a second restart of apache seemed to make it work again with 2.4.6-40 though at that point we weren't sure why. Despite those 10 boxes being champs, Will decided to DSH out another restart to get more boxes running apache again and back in the pool.

[04:34:52 PM EDT] < will_gallego>: dsh is still going out, will take a bit

wow, everything runs apache.

[04:34:57 PM EDT] < mg>: possible side-effect, some images on dev are not loading

[04:34:59 PM EDT] < jimbo>: ack

[04:35:01 PM EDT] < beerops>: should we also create a ticket to change the apache package in chef to install instead of upgrade

[04:35:16 PM EDT] < jtinley>: Definitely!

[04:35:17 PM EDT] < jtinley>: on it

[04:35:31 PM EDT] < jtinley>: ?jiracreate Pin the apache httpd process to a specific version and only :install

[04:35:33 PM EDT] < ircat>: Ticket not found or JIRA unavailable. Sorry.

[04:32:27 PM EDT] < jtinley>: wow IndexOptions

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MAKING INFORMATION USABLE

INCLUDE EXAMPLES

What if I want additional run list items or Chef attributes?

Good news! If you want to add additional run list items, you can specify them with the new -c option in Gabriel. If you want to specify additional attributes, Gabriel now accepts them in json form with the new -j option - this can take either a json string or a path to a json file.

For example:

```
./gabriel.rb -o oldhost12345 -h web12345.ny2.etsy.com -p centos7-simple -r Web -c "recipe[foo::bar]" -j /home/me/myattributes.json
```

Spork Check

This function is designed to help you avoid trampling on other people's cookbook versions, and to make sure that when you come to version your own work it's easy to see what version numbers have already been used and if the one you're using will overwrite anything.

Usage

```
knife spork check COOKBOOK [--all]
```

By default, spork check only shows the 5 most recent remote cookbook versions. Add the --all option if you want to see everything.

Example (Checking an Unfrozen Cookbook with version clash)

```
$ knife spork check apache2
Checking versions for cookbook apache2...
```

Local Version:

1.1.49

Remote Versions: (* indicates frozen)

*2.0.2

*2.0.1

1.1.49

*1.1.14

*1.1.13

ERROR: The version 1.1.49 exists on the server and is not frozen. Uploading will overwrite!

INCLUDE DIFFERENT
LEVELS OF CONTENT

Example

```
from chef import autoconfigure, Node

api = autoconfigure()
n = Node('web1')
print n['fqdn']
n['myapp']['version'] = '1.0'
n.save()
```

Further Reading

For more information check out <http://pychef.readthedocs.org/en/latest/index.html>

Building Bridges with Devops

Short Version:

Katherine Daniels explains how to take the same principles that allow us to build effective devops environments within engineering departments and use them to create organizations and communities that encourage sustainable participation from a wider range of people, building bridges between people, teams, and communities so that everyone can thrive and produce their best work possible.

Long Version:

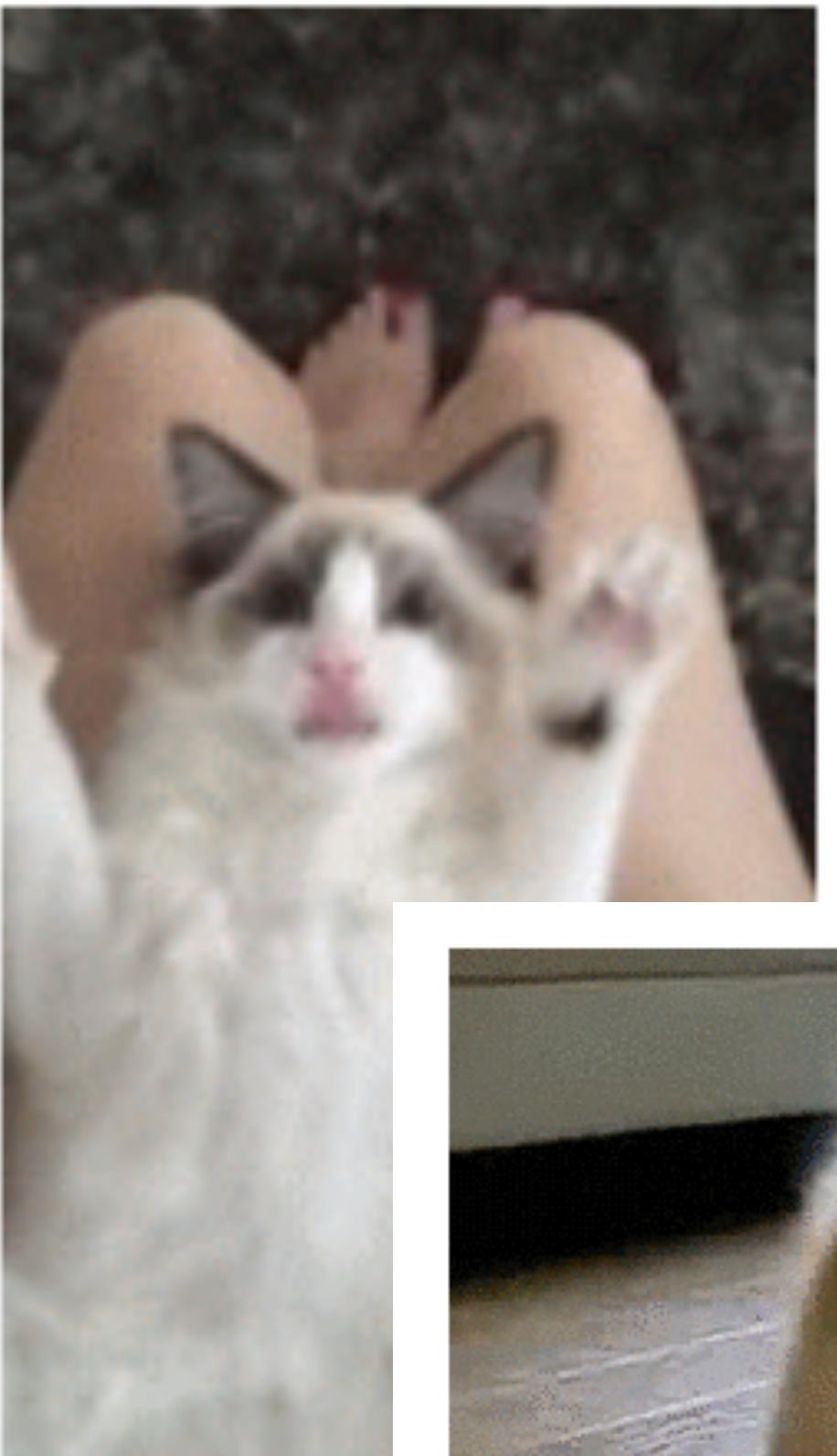
Empathy has long been hailed as one of the cornerstones of devops - it is empathy that allows developers to care about how their code runs in production, allows operators to care about helping developers get their work done efficiently, and allows both of these teams to care about how their work impacts their customers. Yet despite the importance of getting these two teams to work well together, they do not exist in a vacuum. In order for organizations to be truly successful with their devops initiatives, they must make sure that they create environments where everyone can do their best work, not just a few isolated engineering teams.

Beyond simply being empathetic to those we work with, we must actively work to create spaces that are safe and inclusive for everyone. This talk will explain how we can take the same principles that allow us to build effective devops environments within engineering departments and use them to create both organizations and communities that are safe and healthy enough to encourage sustainable participation from a wider range of people, building bridges between people, teams, and communities so that everyone can thrive and produce their best work possible.

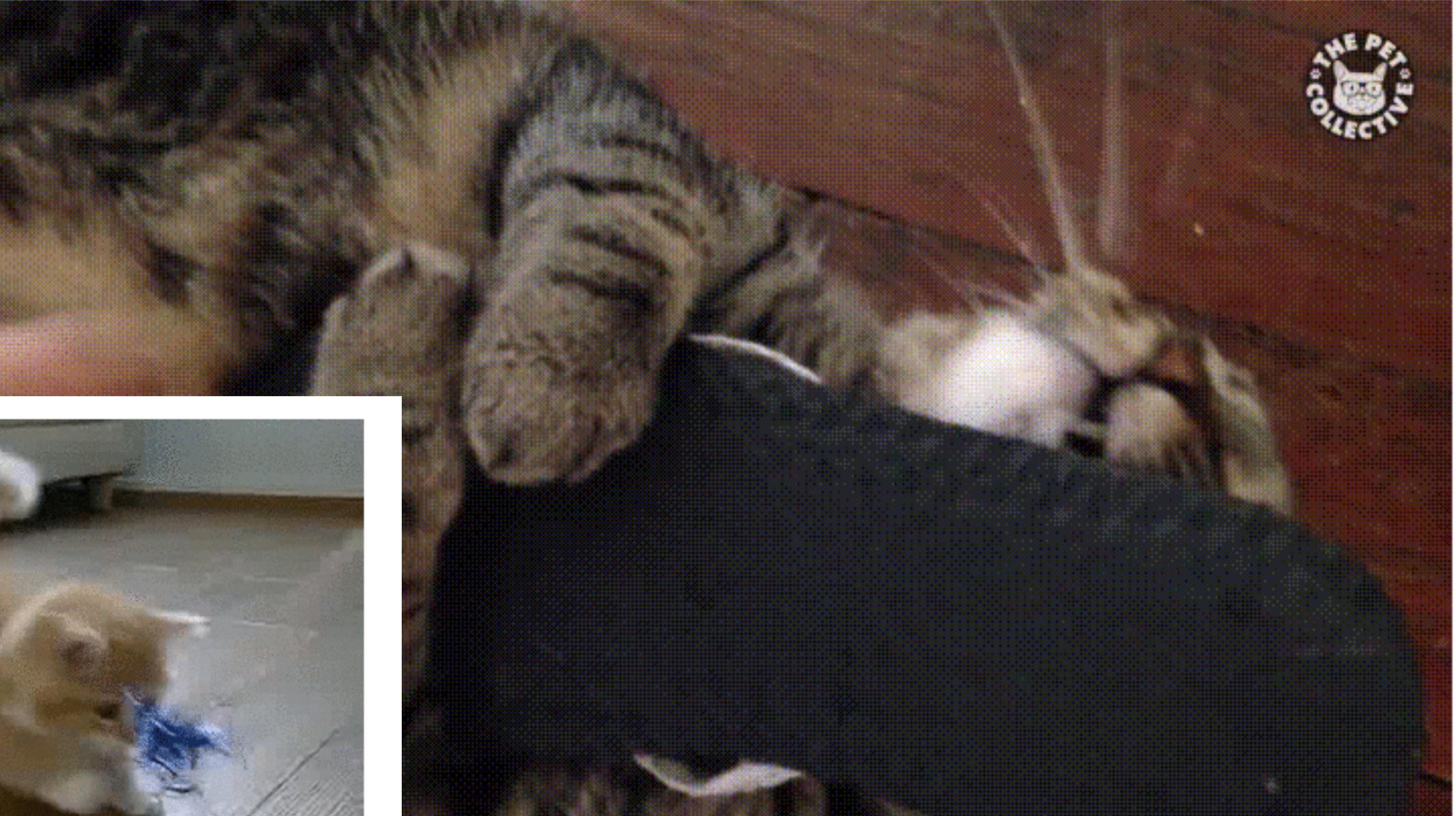
ERR ON THE SIDE OF
MORE INFORMATION

I read this whole email, where's my cat?

CAT TAX!



Cat tax for reading this far:

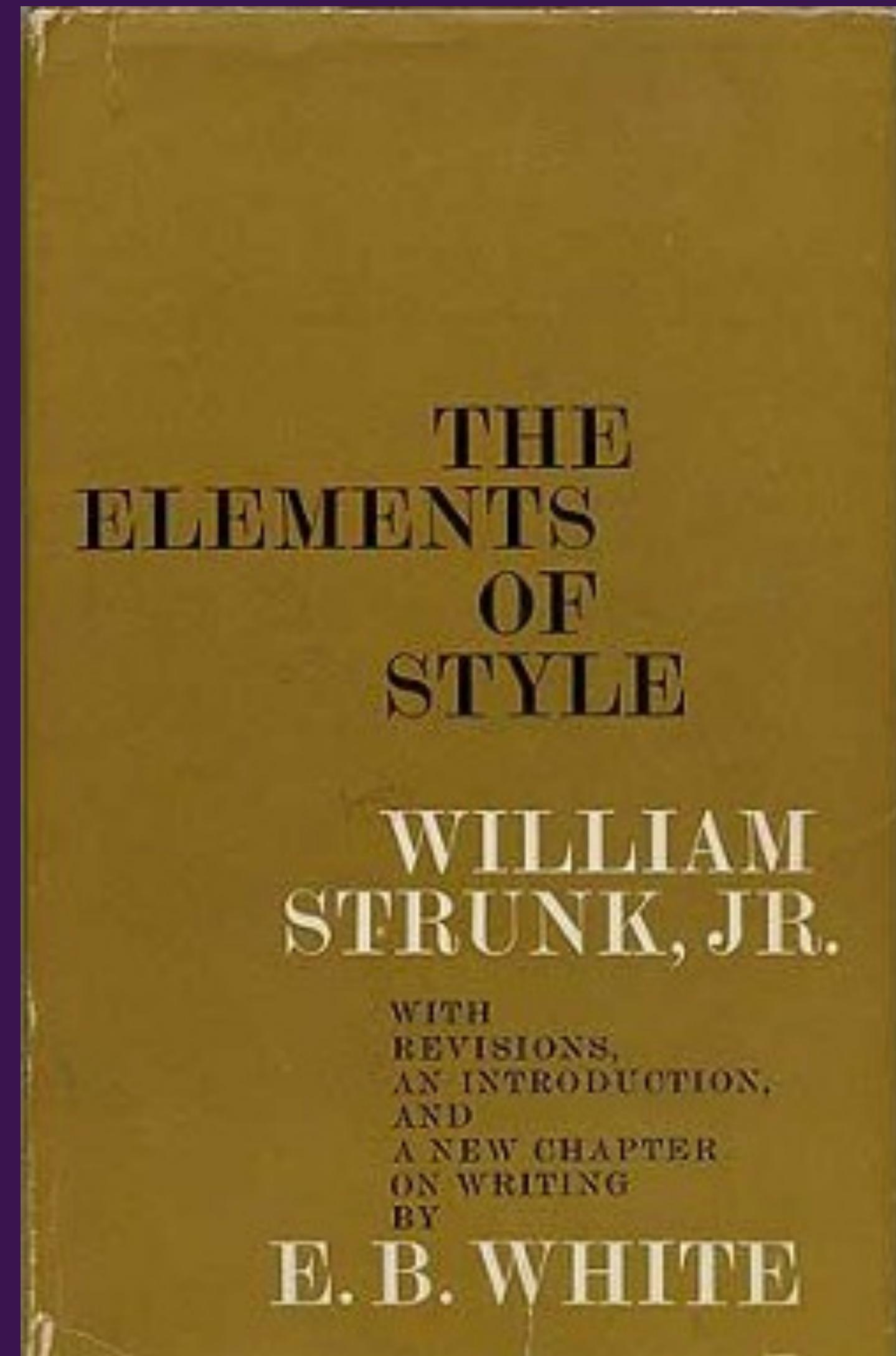


(cat tax)

FINDING YOUR STYLE

STYLE GUIDES!

(not the code kind)



Chapter 2. O'Reilly Grammar, Punctuation, etc.

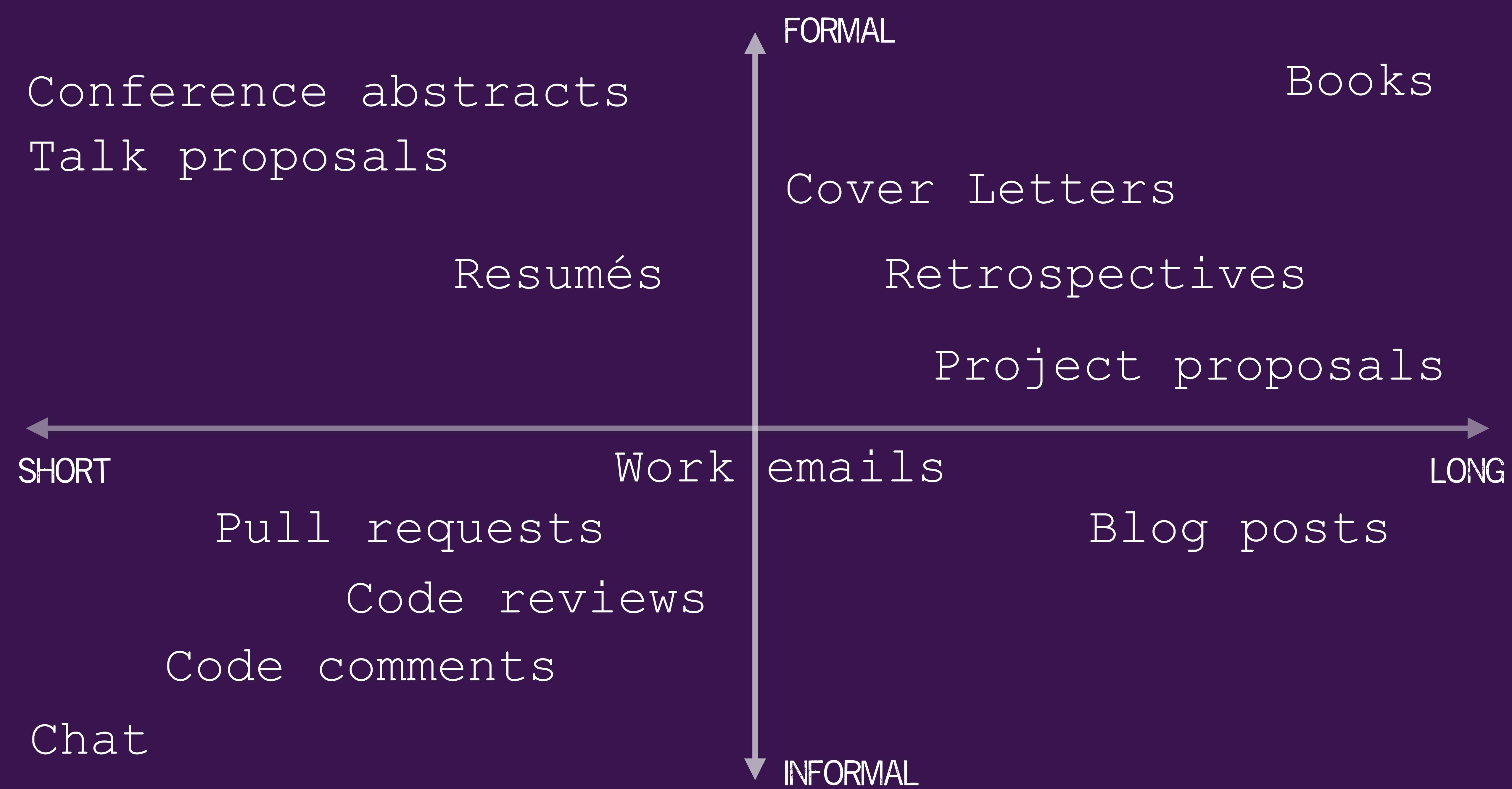
Abbreviations/Acronyms

- Acronyms should generally be spelled out the first time they appear in a book, as in: “Computer Development Environment (CDE).” After the acronym has been defined, you should generally use the acronym only (not the whole term, unless it makes more sense contextually to use the whole term). Usually, acronyms are defined only once per book. But if you prefer, you can also define them the first time they appear in each chapter.
- A.M. and P.M. or a.m. and p.m.—be consistent.
- K = 1,024; k = 1,000. So a 56 kbps modem is equal to 56,000 bps, while 64K of memory is equal to 65,536.
- In units of measure, do not use a hyphen. For example, it’s 32 MB hard drive, not 32-MB hard drive. (Though when the unit is spelled out, use a hyphen, e.g., 32-megabyte hard drive.)
- University degrees (e.g., B.A., B.S., M.A., M.S., Ph.D., etc.) can appear with or without periods—just be consistent.
- United States and United Kingdom should be spelled out on first mention. After that, just use the acronym with no periods (so, US or UK).

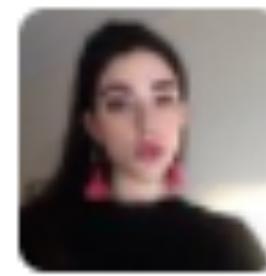
Bibliographical Entries

In general, when referencing another book within a book’s text paragraphs, include the author name(s) when there is one or two authors. When there are three or more authors, state the first author name, followed by “et

READ THE BACKSCROLL



REVIEWING: FEEDBACK AND EDITING



Gabby Noone

@twelveoclocke



Follow

Behind every strong woman is 5 other strong women who proofread her email real quick when they had a second

RETWEETS

4,632

LIKES

9,820



5:35 PM - 25 Apr 2016



54



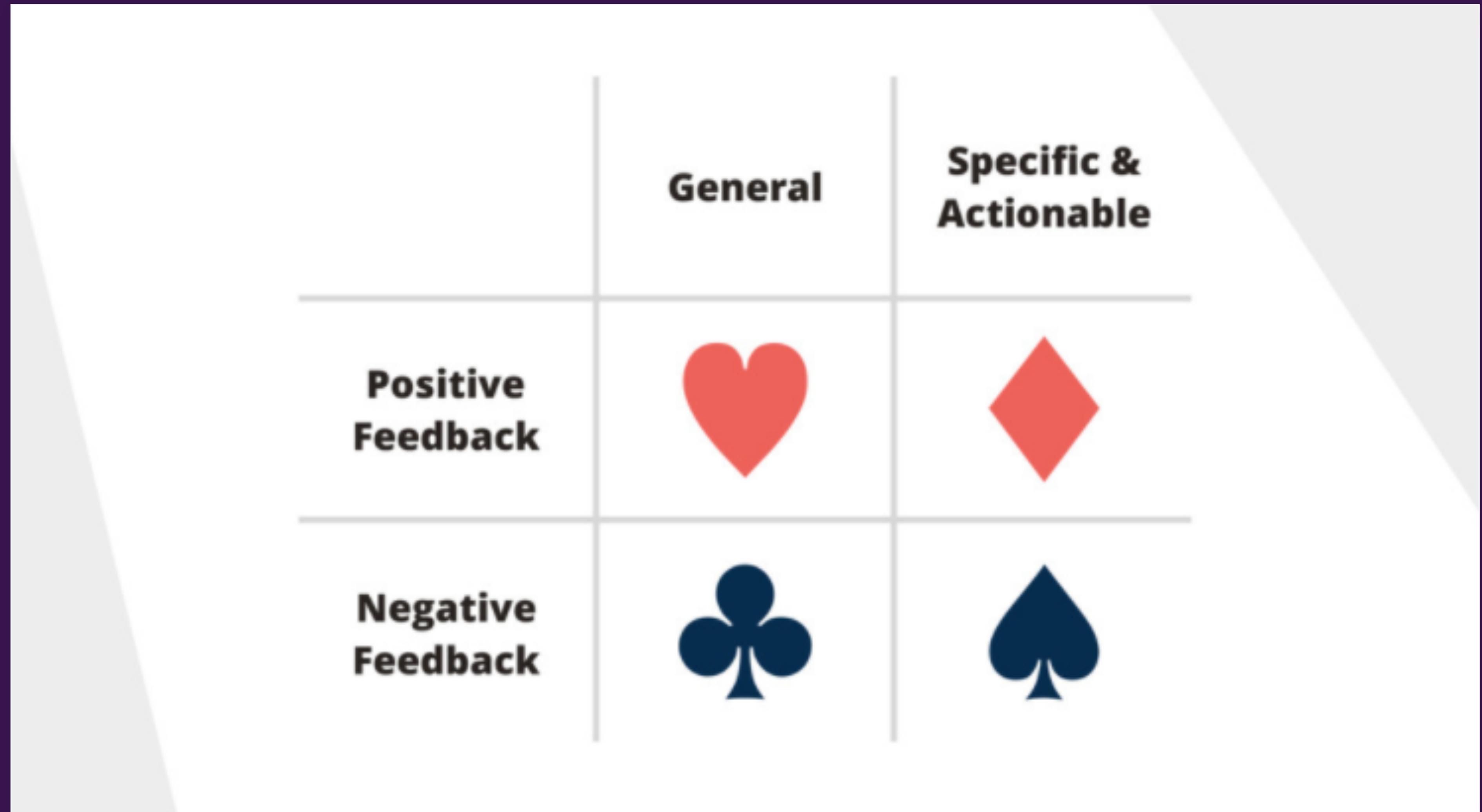
4.6K



9.8K

...

GETTING FEEDBACK



SPECIFIC FEEDBACK GROUPS

- Cheerleaders
- Critical eyes
- Subject matter experts
- Non-SMEs
- Your target audience
- Your heroes

A close-up photograph of a fluffy, multi-colored cat (calico) lying down. The cat has white fur on its chest and paws, with patches of brown and black on its body. Its eyes are open and looking towards the camera. The background is blurred, showing some indoor furniture.

DON'T READ
THE COMMENTS

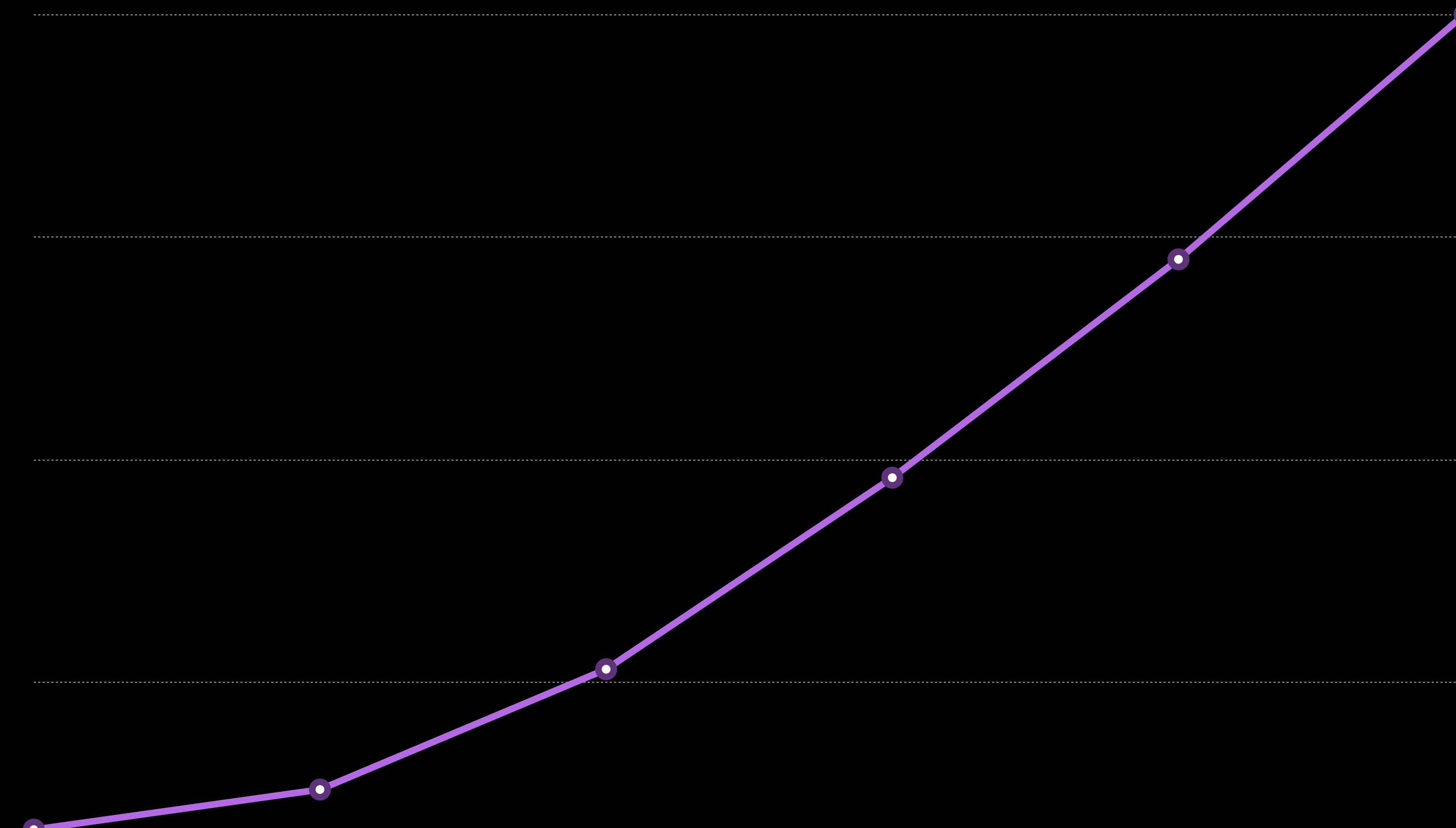
THE EDITING PROCESS

- Write
 - Read through once (and spellcheck!)
 - Re-read tricky sections
 - Wait X amount of time
 - Internal Feedback
 - External Feedback
 - Publish/Send!
- 
- Repeat as needed

**HOW MUCH IS “AS NEEDED”?
HOW MUCH TIME IS “X”?**

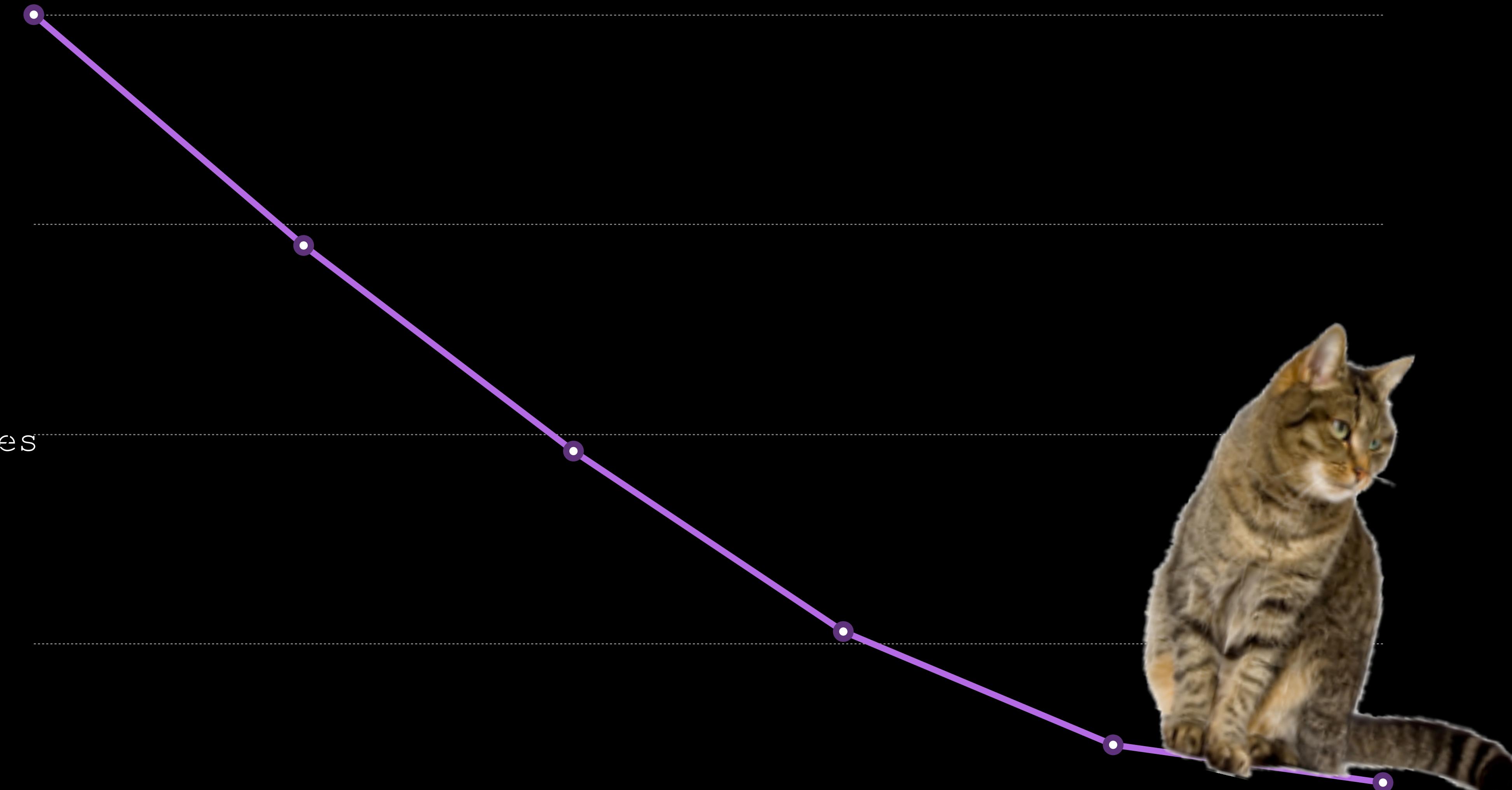
Time spent
editing

Length/formality of document



Number of
cat pictures

Length/formality of document



Requirements for Affinity

Organizational affinity does not happen overnight, without effort, or without the right circumstances to allow it. In this section we will discuss what circumstances and characteristics are required for affinity to take place. This is not to say that each of these areas has to be perfect—even in the best organizations these are ongoing works with a focus on constant improvement—but an organization that has serious issues with either slack, explicit goals and values, space, and cooperation will find it significantly more difficult to realize all the benefits that affinity can bring.

Slack

Slack in a work system describes when work isn't being done. Often this idea of idleness is perceived as not productive or efficient, but in reality, it is a must in a work environment. Planning intentional slack is necessary to avoid over-assigning work. Focusing on metrics of effectiveness and efficiency around subscription rates of the team and individuals highlights a focus on the tasks that can be measured over the inherently hard-to-measure relationship work of building out a network.

Slack is also critical in being able to handle the variable work that comes in, any unplanned work or work that unexpectedly takes longer to finish. In order to figure out how much slack you need, first you need to understand how variable the work is and then add some buffer on top of that. If you experience exactly 20 hours of unplanned work every week plan for that 20 hours plus the amount of time needed to care for the network; and individual growth. If you experience between 20-30 hours of unplanned work every week, you need to allocate more slack.

-  [EffectiveDevOps_toCE_rm_KFD.pdf](#)
-  [EffectiveDevOps_toCE_rm.pdf](#)
-  [EffectiveDevOps_toQC1_CH11-end.pdf](#)
-  [EffectiveDevOps_toQC1_CH11-end.pdf.zip](#)
-  [EffectiveDevOps_toQC1_FM-CH10.pdf](#)
-  [EffectiveDevOps_toQC1_FM-CH10.pdf.zip](#)
-  [EffectiveDevOps_toQC2_CH11-end.pdf](#)
-  [EffectiveDevOps_toQC2_CH11-end.pdf.zip](#)
-  [EffectiveDevOps_toQC2_FM-CH10.pdf](#)
-  [EffectiveDevOps_toQC2_FM-CH10.pdf.zip](#)

DON'T LET THE PERFECT BE
THE ENEMY OF THE GOOD.



CAT TAX

TL;DR

- IDENTIFY AUDIENCE AND TAKEAWAYS
- WRITE SOME WORDS!
- ASK FOR AND GET FEEDBACK
- ITERATE (AND ITERATE) AND SHIP
- KEEP PRACTICING



THANK YOU!