

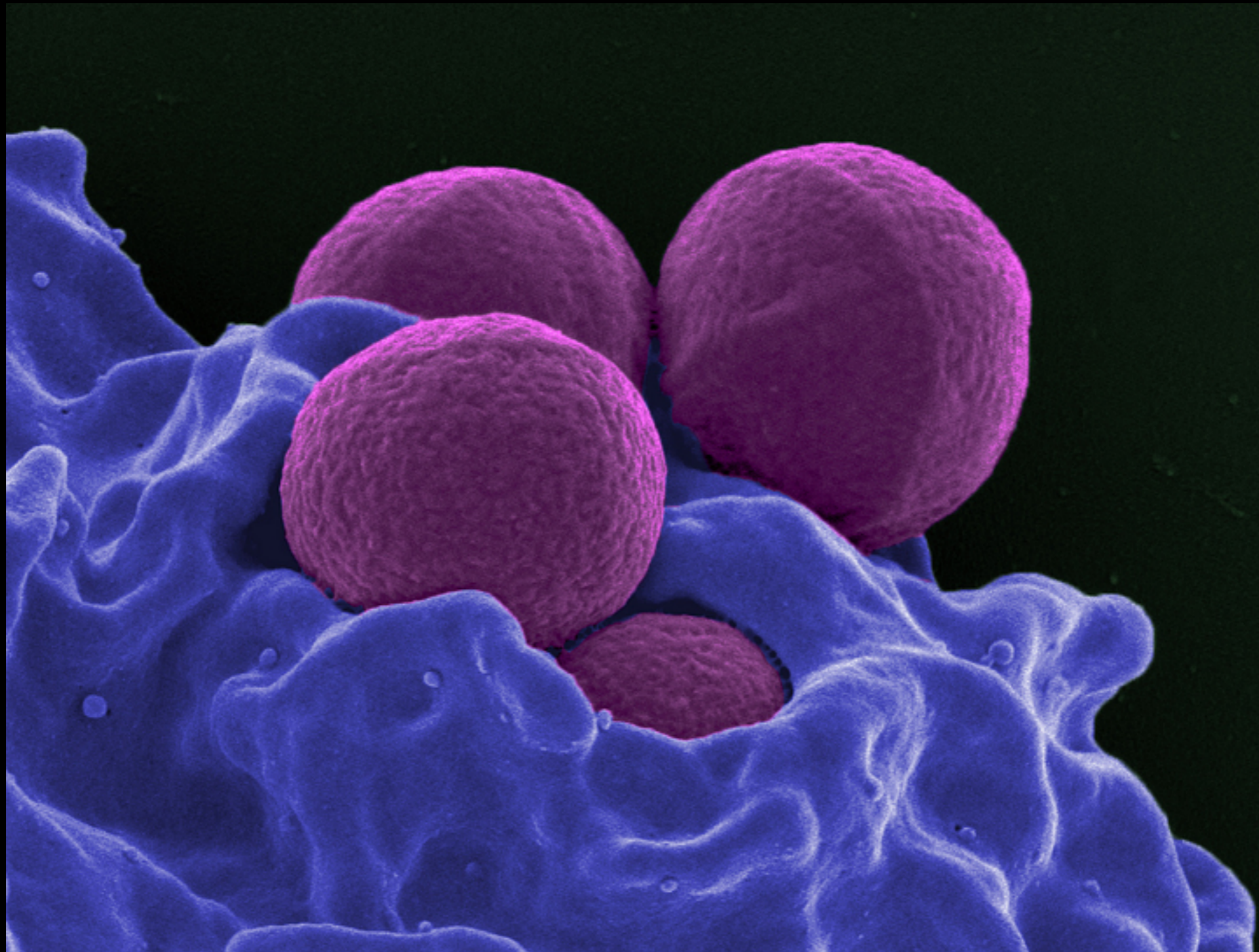
Please evaluate
my talk via the
mobile app!

Building resilience

How outages shaped Etsy's systems

Act 1

Quick! Be resilient!



Quick! Be resilient!

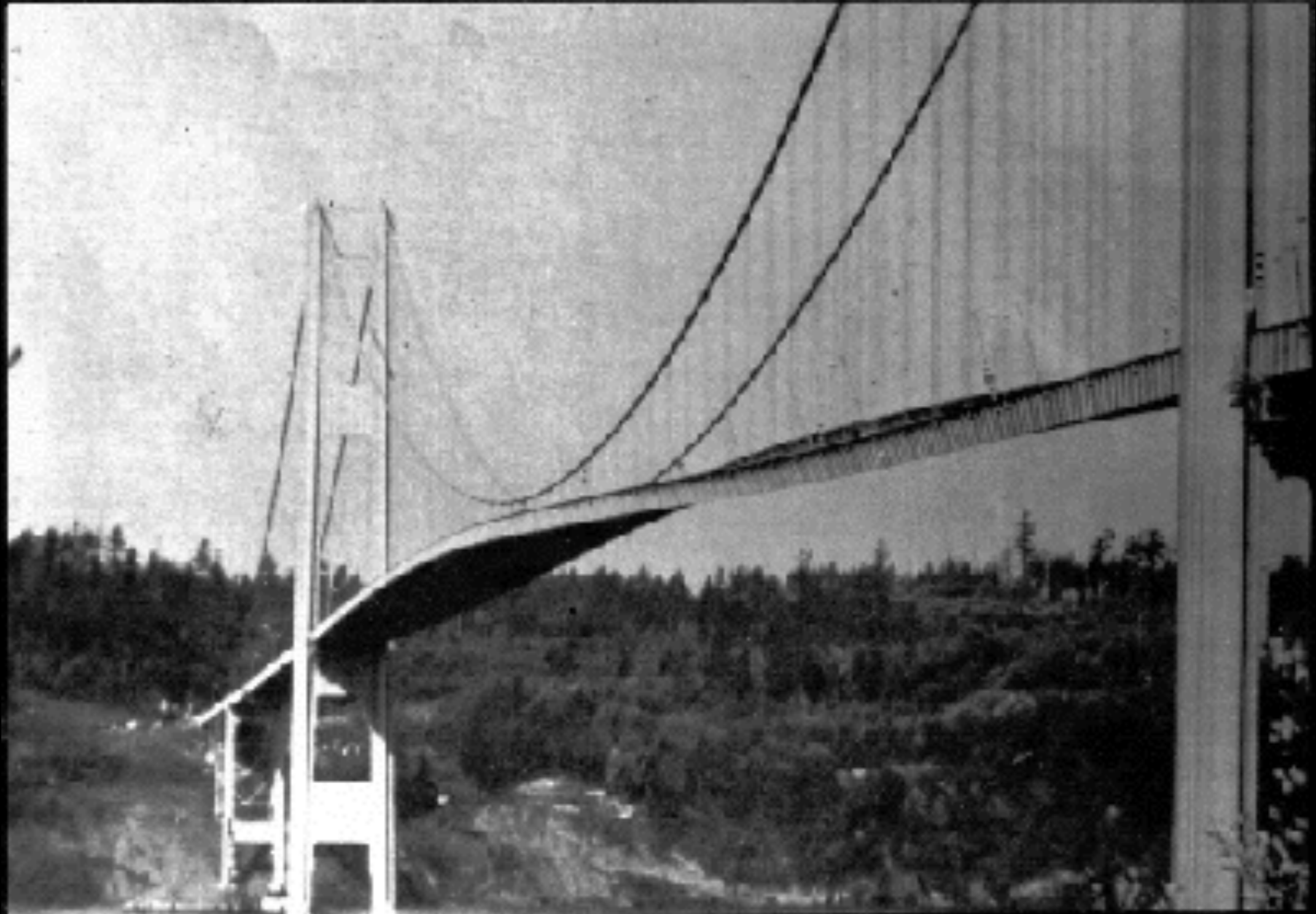
- Actually, it's a slow process
- Iterative
- Introspective
- Horizontal and vertical development



Quick! Be resilient!



Quick! Be resilient!



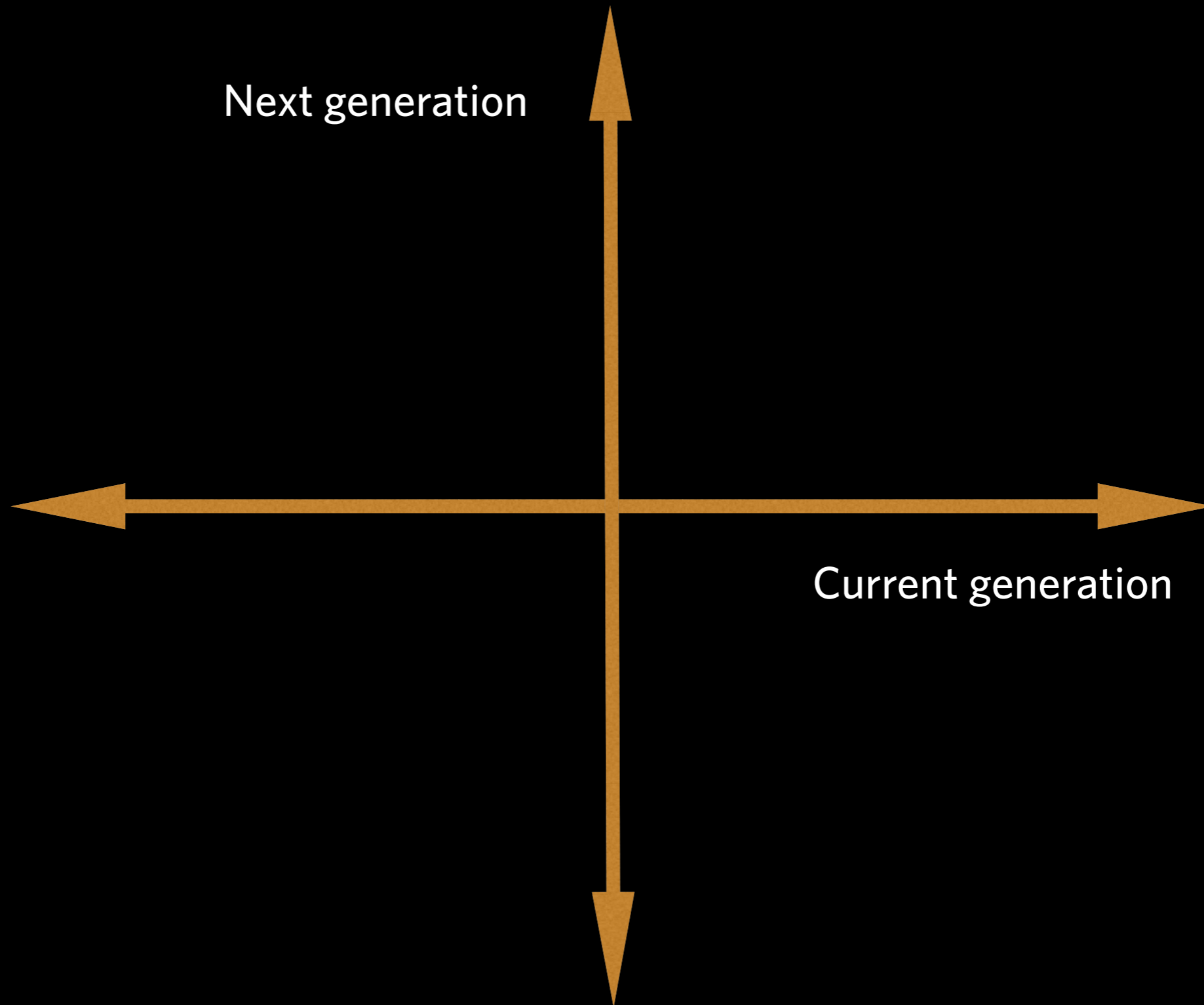
Quick! Be resilient!



Quick! Be resilient!



Quick! Be resilient!



Quick! Be resilient!



Quick! Be resilient!



Resilience Engineering



Resilience Engineering

- “To Engineer is Human”
“To Forgive Design”
- Henry Petroski
- “The Field Guide to Understanding Human Error”
“Just Culture”
- Sidney Dekker

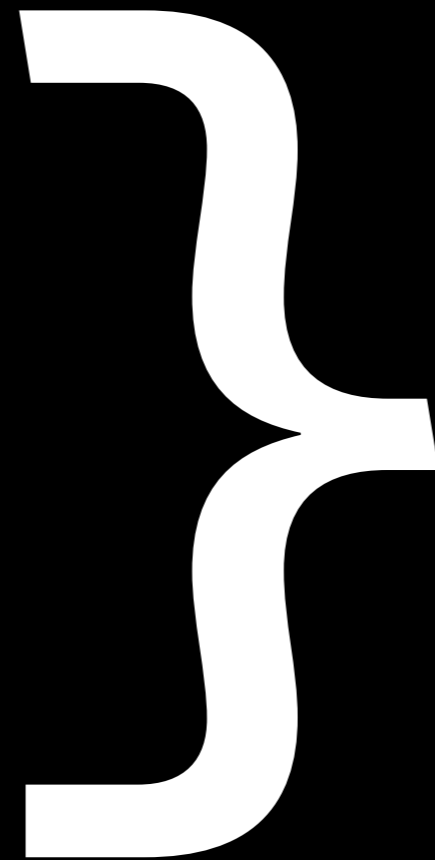
Act 2

Building resilience at Etsy

- Continuous deployment
- Metrics, metrics, metrics
- Peer review
- Postmortems

Building resilience at Etsy

- Continuous deployment
- Metrics, metrics, metrics
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Culture

Postmortems

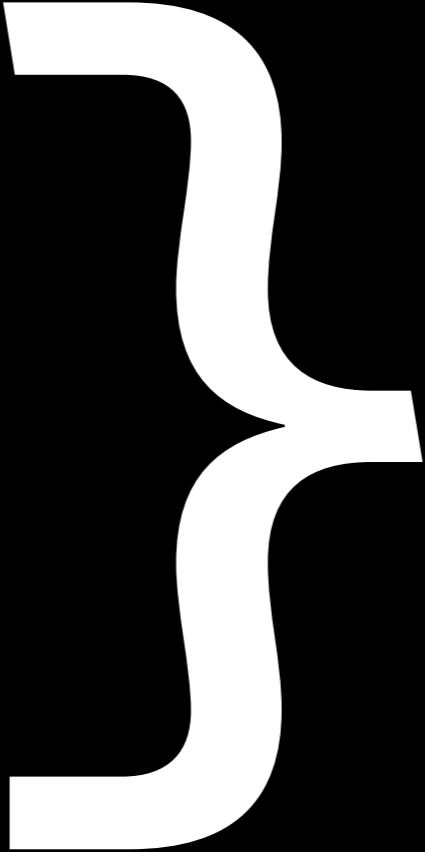
Or: How to win at failing

Constructive cultures

- No blame
- Open discussion
- Focus on improvements

Constructive cultures

- No blame
- Open discussion
- Focus on improvements



Culture

Destructive cultures

“The nail that sticks up,
gets hammered down”

-JAPANESE PROVERB

The result?

- #23: Fortune's "Top 50 best small and medium businesses to work for"
- Rapid code iterations and deploys
- Lasting relationships
- Generosity of spirit
- ...and much more

Act 3

Doing postmortems? Get Morgue

<http://github.com/etsy/morgue>

Morgue

Post Mortem Keeper

Title	Start Time	End Time	Severity
css typo took the site down	11/01/2013 17:00pm	11/01/2013 17:55pm	1
bad git push (forced) caused us to almost loose history	11/29/2012 15:24pm	11/29/2012 16:19pm	1

[+ Create](#)

Filter by Tags

[foo](#) [git](#)

[⌄ Change Timezone](#)
Current: America/New_York

Morgue

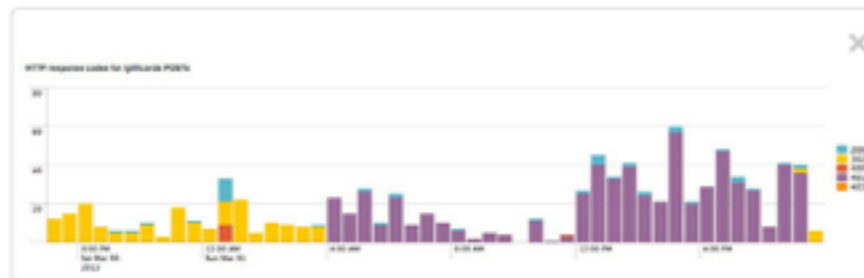
What happened?

- 15:24 - @jdoe types bad command "git push -f", hits Ctrl-C, thinks that it did not propagate (but it did) You can use [markdown](#)
- 15:?? - @rob and @pat both tell @dschauenberg that there is a problem
- 15:43 - push queue is put on HOLD status
- 15:44 - "do not push" email goes out to techall
- 15:46 - @jdoe joins #push to work out the issue
- 15:49 - @klee pushes all but one commit to master
he was missing the most recent merge commit; @dschauenberg advocated that @klee do this push
- 15:52 - @dschauenberg suggests that we use deploy03 git repo to recover
- 16:09 - @dschauenberg finishes backing up deploy03 git repo and does "git push -f", recovering the lost commits
- 16:19 - we push princess again at commit b9d6f3615f8ce02b3437977d9e46aea737ef078b and everything is peachy

Edit

Images

Enter image URL



IRC Channel(s)

#ops x

Morgue

Remediation

Enter JIRA key(s), separated by commas (i.e. CORE-2024, OPS-1453)

[Create New Issue](#)

Key	Summary	Assignee
MAYHEM-806	detect rollbacks in git history	jpaul x
MAYHEM-807	create ability to disable push buttons in deployinator	jpaul x
MAYHEM-808	create delayed repo to track etsyweb repo	jpaul x
MAYHEM-810	track how often push -f happens	jpaul x
MAYHEM-809	prompt for push -f	ygoulah x

Forums

Enter link to forum post

Forum post description

Save Forum Entry

Forum Posts

Tags

Enter tags, separated by commas

git x

Forkistan

- Mean time to detect: 0 min
- Mean time to recover: 10 mins

Yo Dawg, I Heard You Like Errors..

- Mean time to detect: 2 mins
- Mean time to recover: 15 mins

Smashing INT for Fun and Profit

- Mean time to detect: 0 min
- Mean time to recover: 4 hrs 52 mins

Apache Amnesia

- Mean time to detect: 2 hours
- Mean time to recover: 5 mins

Continuously Upgrading Databases

- Mean time to detect: 2 mins
- Mean time to recover: 1 hour (but, not really..)

Q & A

Avleen Vig
Staff Operations Engineer
Etsy, Inc
@avleen

Please evaluate
my talk via the
mobile app!