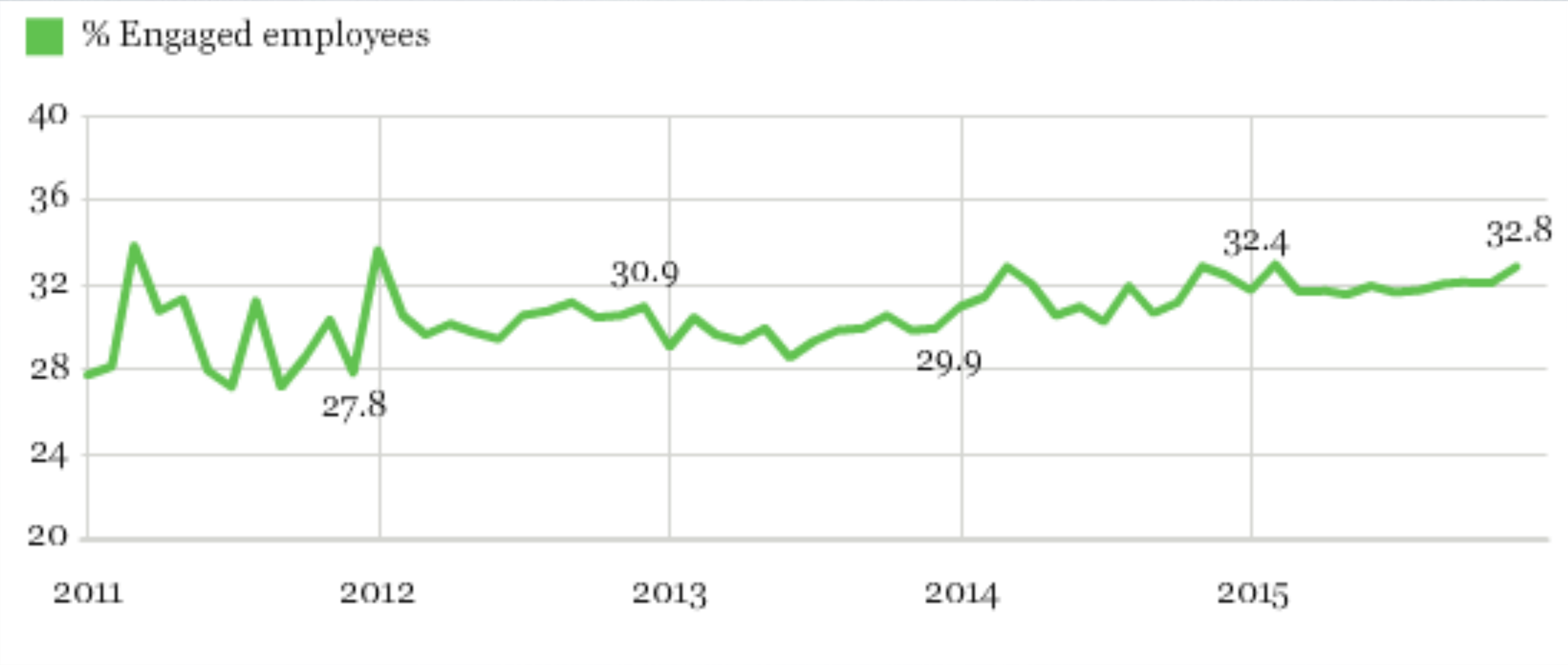

GALLUP POLL

1/3 of workers are engaged at work

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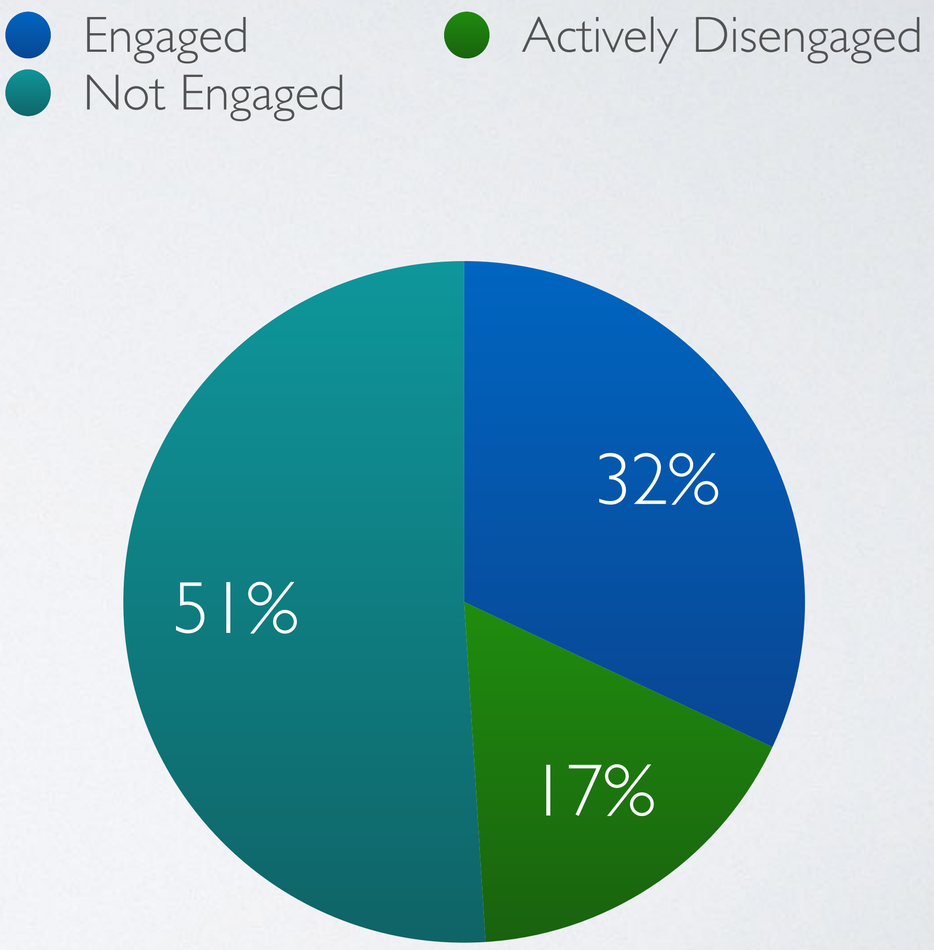
1/3 ARE ENGAGED AT WORK (GALLUP)

- 80,844 adults working for an employer
- Key Indicators
  - opportunity to do what they do best each day
  - someone at work who encourages their development
  - believing their opinions count at work



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GALLUP DEFINITIONS

- **Engaged**: Employees are highly involved in and enthusiastic about their work and workplace. They are psychological "owners," drive performance and innovation, and move the organization forward.

- **Not engaged:** Employees are psychologically unattached to their work and company. Because their engagement needs are not being fully met, they're putting time -- but not energy or passion -- into their work.

- **Actively disengaged:** Employees aren't just unhappy at work -- they are resentful that their needs aren't being met and are acting out their unhappiness. Every day, these workers potentially undermine what their engaged coworkers accomplish.

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40 HOUR WORK WEEK? (GALLUP - 2014)

Average Hours Worked by Full-Time U.S. Workers, Aged 18+

Self-reported hours typically worked each week, based on pay structure

	Paid a salary	Paid hourly
	%	%
60+ hours	25	9
50 to 59 hours	25	17
41 to 49 hours	9	12
40 hours	37	56
Less than 40 hours	3	8
Weekly average	49 hours	44 hours

Based on Gallup's 2014 Work and Education poll, conducted Aug. 7-10, 2014

GALLUP

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Aaron Blythe (@ablythe)

- Lead Organizer

@devopsdayskc

@devopskc

@DevOpsKC
http://www.meetup.com/DevOps-Kansas-City/

@ablythe

http://aaronblythe.org/

@ablythe

TRUST, JUST CULTURE AND BLAMELESS POST MORTEMS

Aaron Blythe

Trust

Justice

BLAMELESS POST-MORTEM

@ablythe

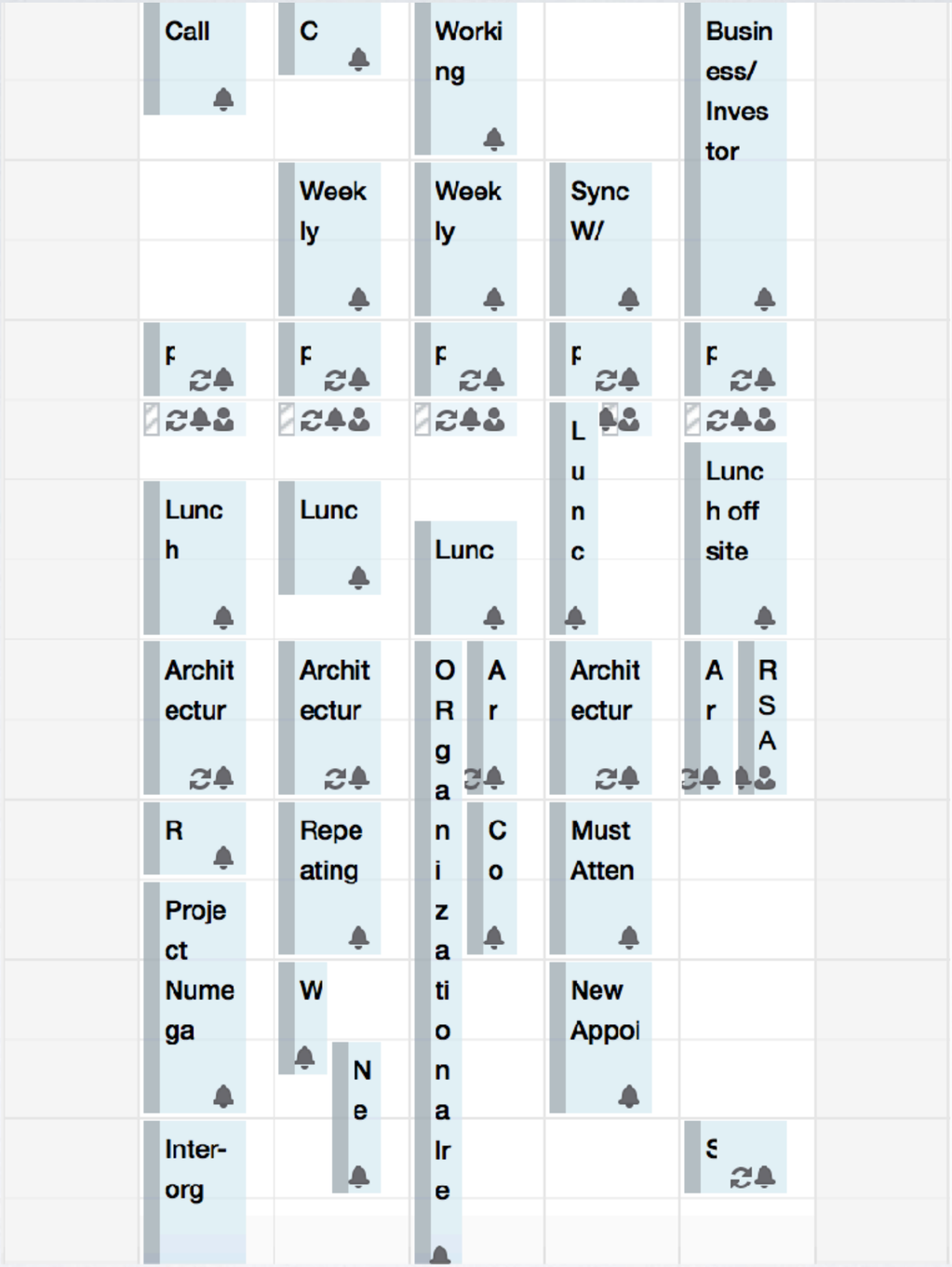
Jennifer - Executive

@ablythe

Jennifer - Executive

Rob - Manager

@ablythe


Call
C
Working
Business/ Investor
Weekly
Weekly
Sync W/
P
P
P
P
P
Lunch
Lunch
Lunch
Lunc
Lunch off site
Architectur
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@ablythe

Jennifer - Executive

Rob - Manager

@ablythe

Jennifer - Executive

Rob - Manager

Ethan
Sr. Engineer

@ablythe

Jennifer - Executive

Rob - Manager

Ethan
Sr. Engineer

Shelly
Sr. Engineer

@ablythe

Jennifer - Executive

Rob - Manager

Ethan
Sr. Engineer

Shelly
Sr. Engineer

Tabitha
Engineer

@ablythe

Jennifer - Executive

Rob - Manager

Ethan
Sr. Engineer

Shelly
Sr. Engineer

Tabitha
Engineer

Michael
Engineering Intern

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Internal Server Error

The server encountered an internal error or misconfiguration and was unable to complete your request.

Please contact the server administrator, [illegible]
and inform them of the time the error occurred, and anything you might have done that may have caused the error.

More information about this error may be available in the server error log.

Additionally, a 500 Internal Server Error error was encountered while trying to use an ErrorDocument to handle the request.

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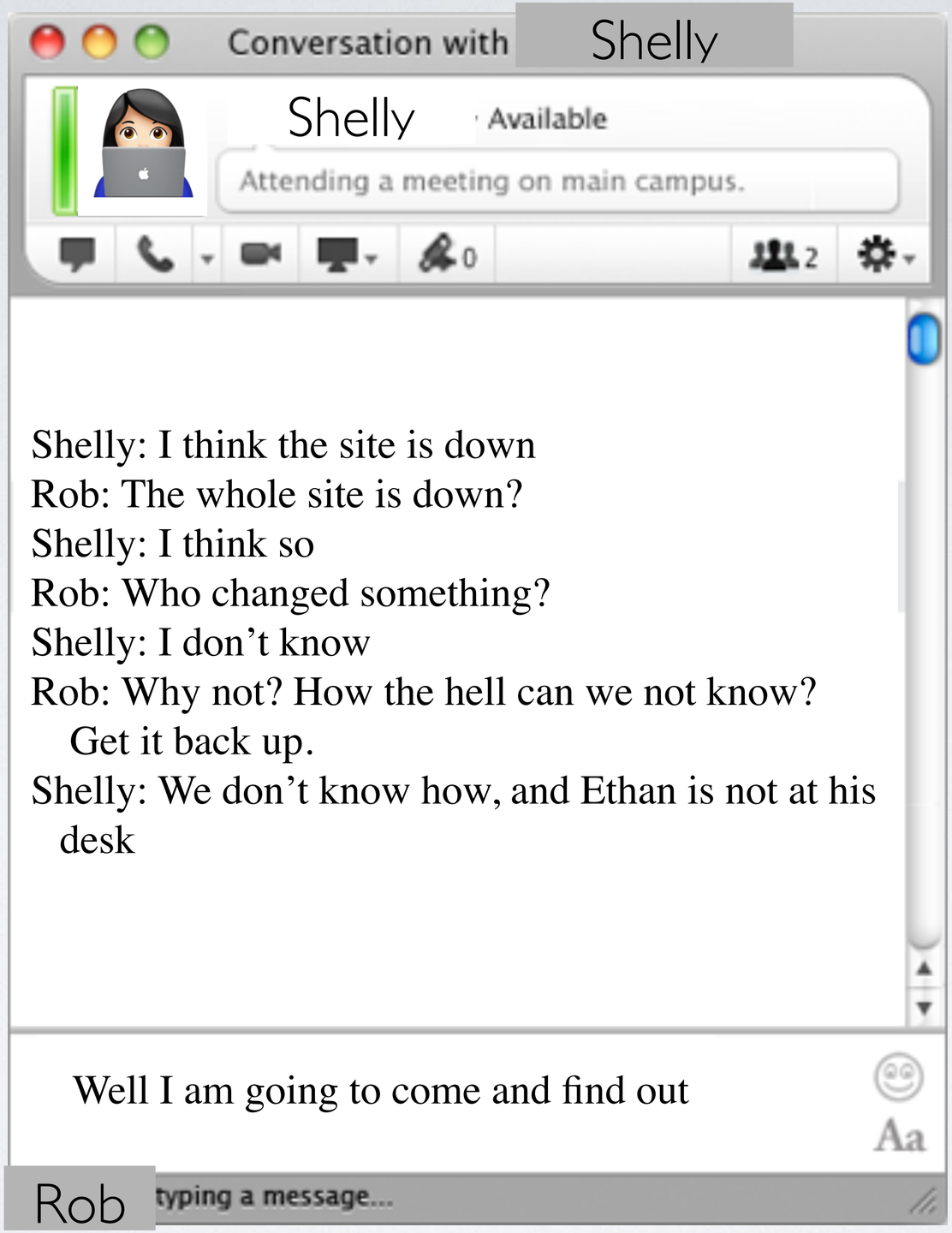
Shelly
Sr. Engineer



Rob - Manager

@ablythe

Shelly
Sr. Engineer

Tabitha
Engineer

Michael
Engineering Intern

@ablythe

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Shelly
Sr. Engineer

Tabitha
Engineer

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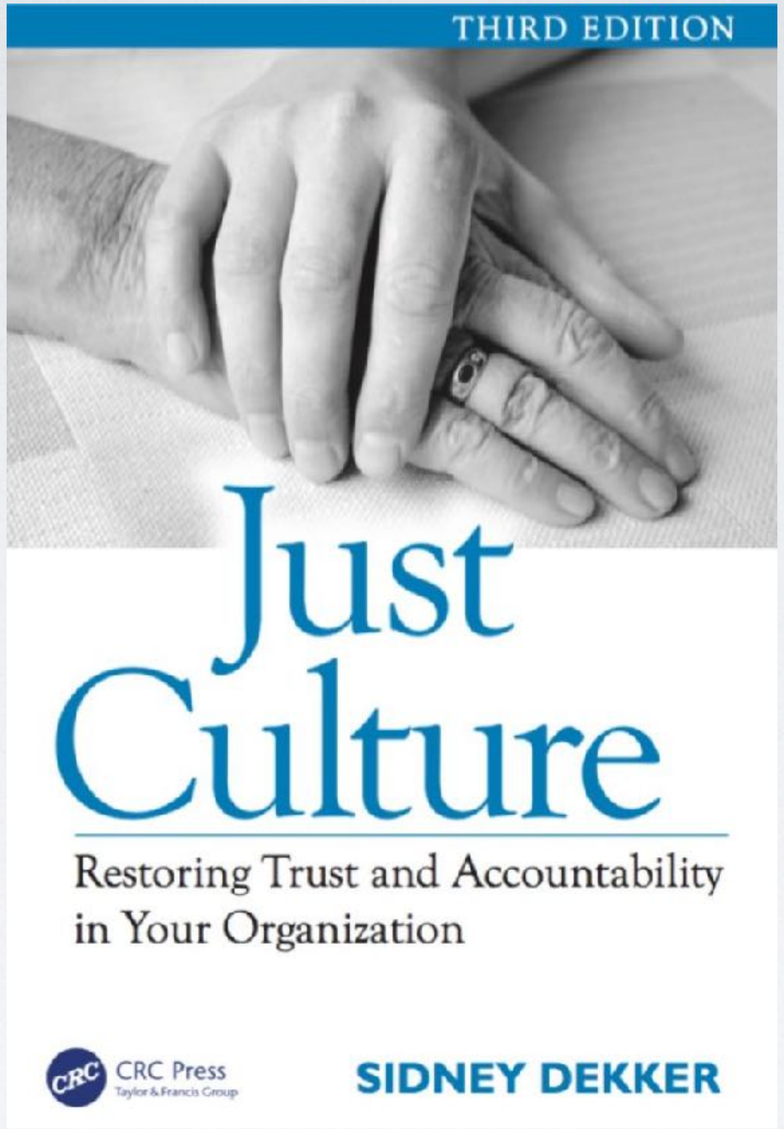

http://sidneydekker.com/just-culture/

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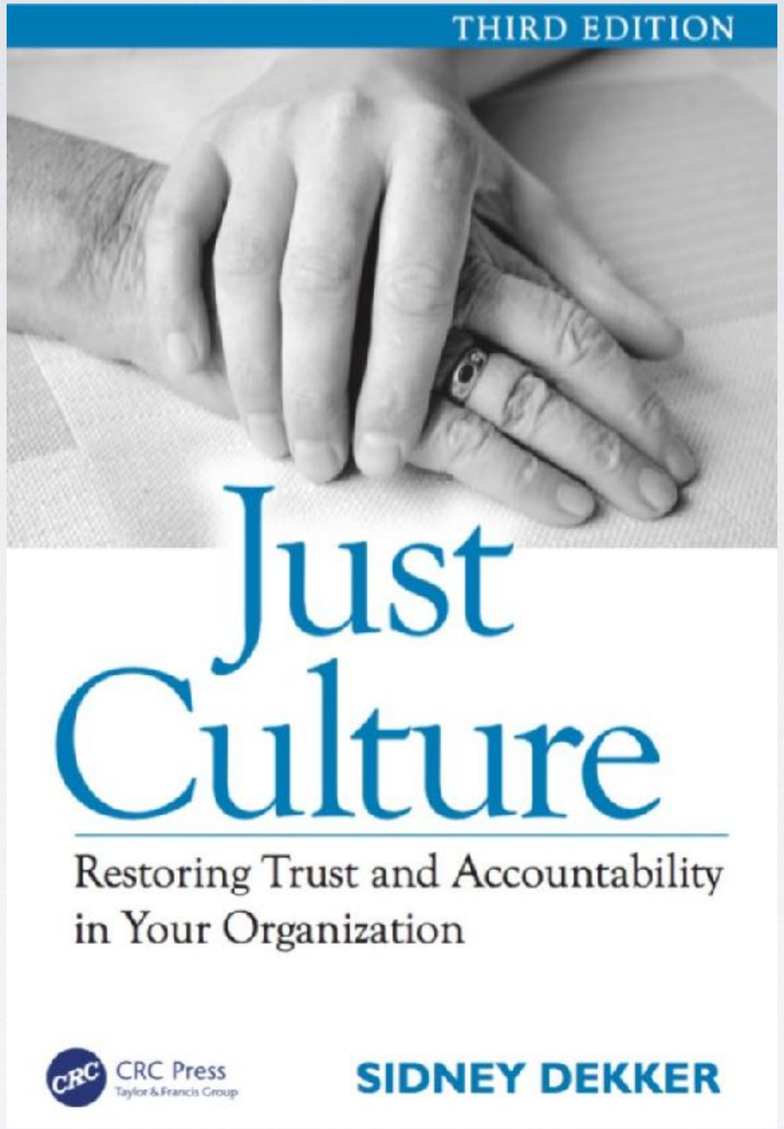
@sidneydekkercom



http://sidneydekker.com/just-culture/

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RETRIBUTIVE JUST CULTURE

- Which rule is broken?
- Who did it?
- How bad was the breach, and what should the consequences be?
- Who gets to decide this?

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~~RETRIBUTIVE~~
RESTORATIVE JUST CULTURE

- ~~Which rule is broken?~~
- ~~Who did it?~~
- ~~How bad was the breach, and what should the consequences be?~~
- ~~Who gets to decide this?~~

- Who is hurt?
- What do they need?
- Whose obligation is it to meet that need?
- How do you involve the community in this conversation?

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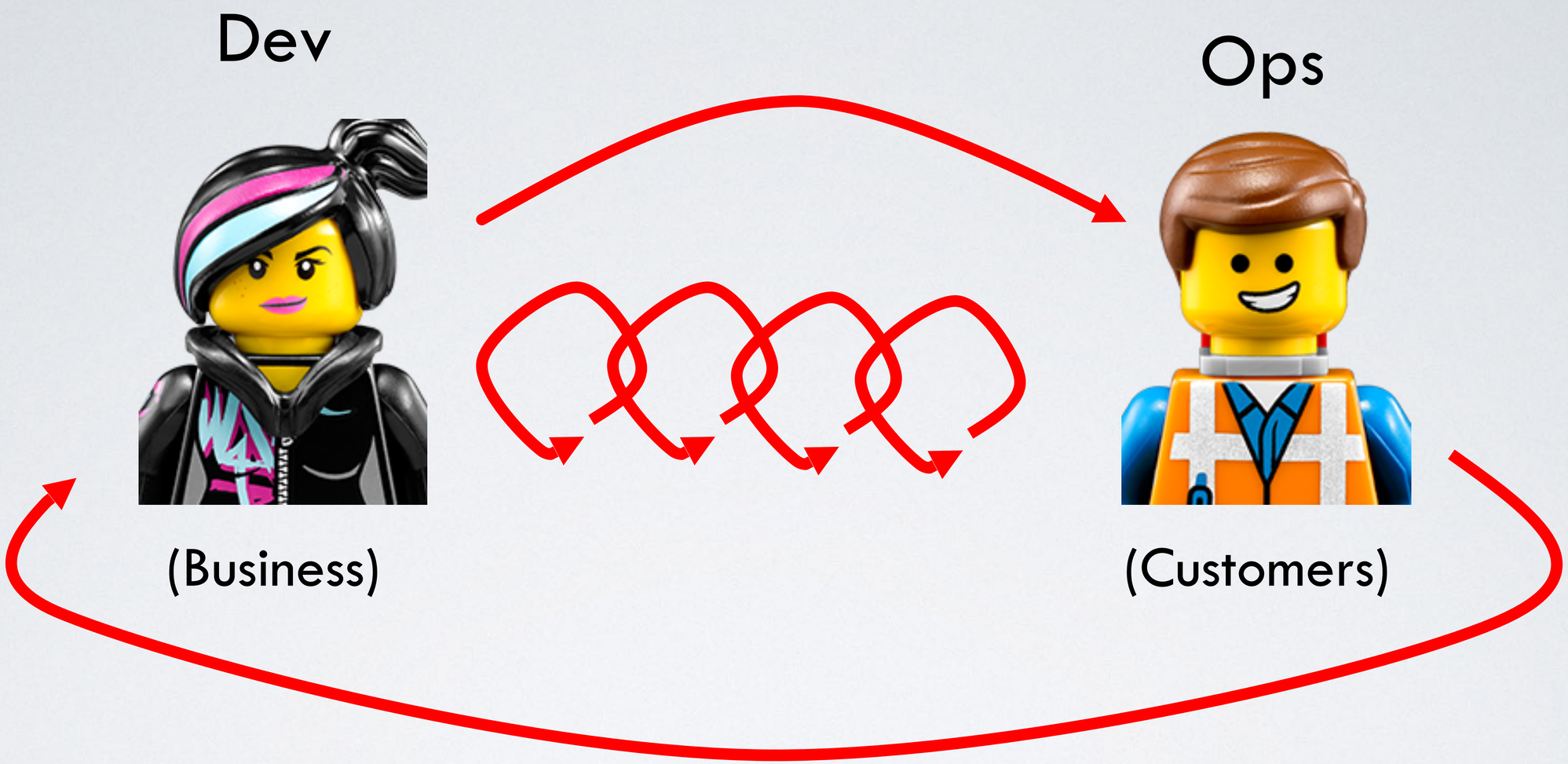
Trust

Justice



THIRD WAY: CULTURE OF CONTINUOUS LEARNING

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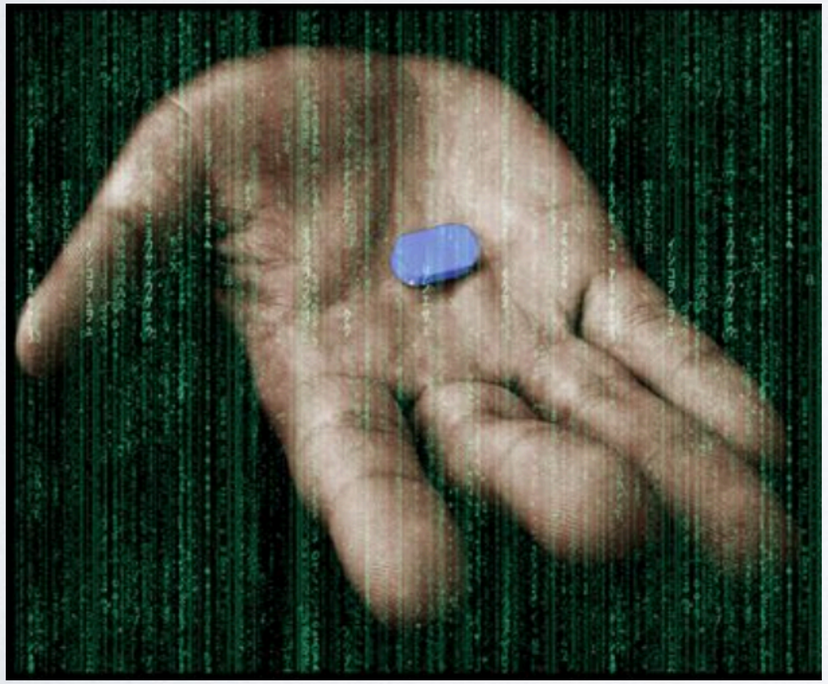
CHOOSE ONE

- Blame



- Learn

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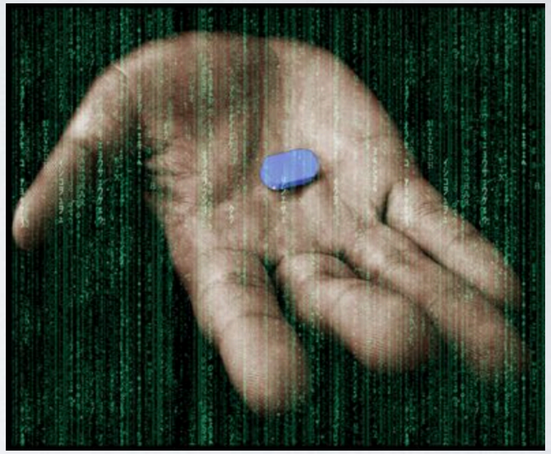
RETRIBUTIVE CULTURE



- Which rule was broken?
- Who did it?
- How bad was the breach?
- What should the consequences be?
- Who gets to decide?

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RESTORATIVE CULTURE

- Who is hurt?
- What are their needs?
- Whose obligation is it to meet those needs?
- How do you involve the community in this conversation?

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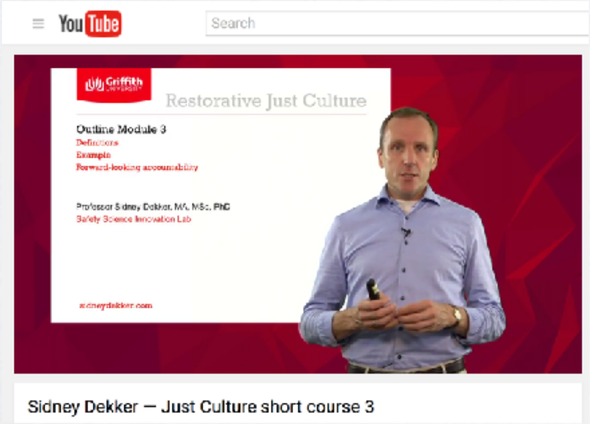
SIDNEY DEKKER – JUST CULTURE

Sidney Dekker – Just Culture short course 1

Sidney Dekker – Just Culture short course 2



Sidney Dekker – Just Culture short course 3

Sidney Dekker – Just Culture short course 4

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- Retributive Culture
  - You pay or settle account
  - Backward-looking accountability
  - Who is responsible?

- **Restorative Culture**
  - **You tell account**
  - **Forward-looking accountability**
  - **What is responsible?**

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MAKE IT SAFE TO FAIL

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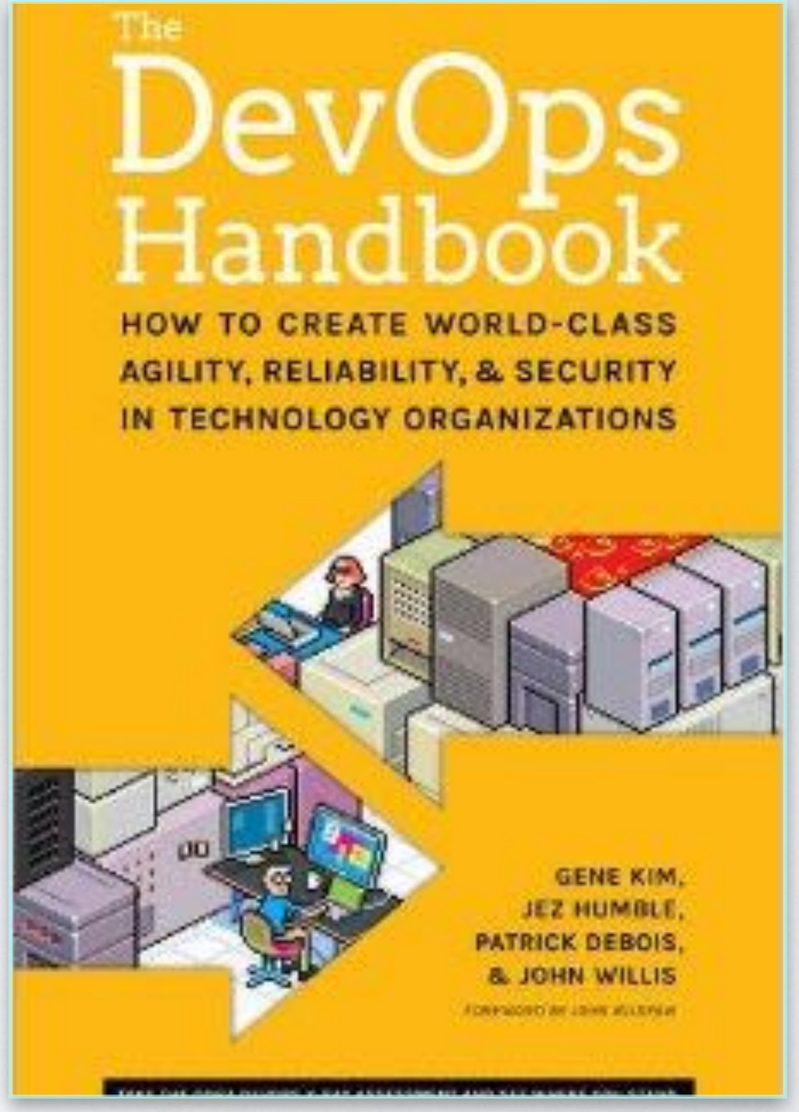
NETFLIX

"… massive outage… It was caused by, quite frankly, a dumb mistake. In fact by an engineer who had taken down Netflix twice in the last 18 months…"



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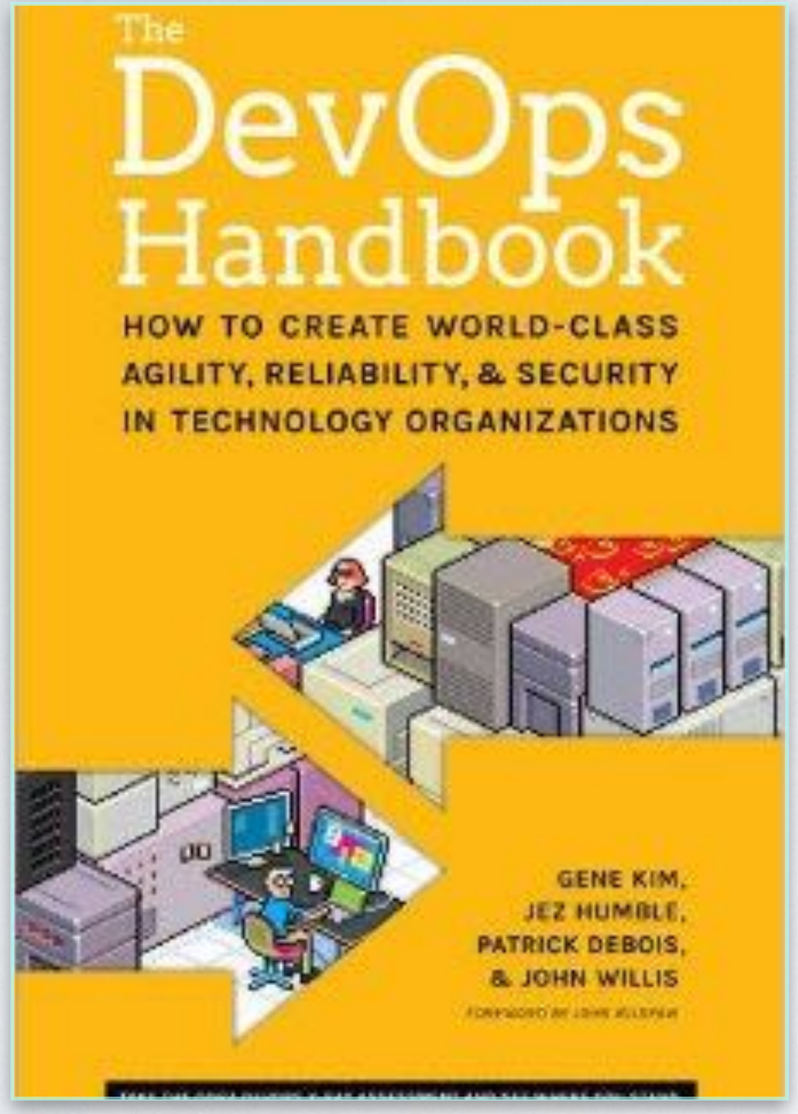

NETFLIX

"… in the same 18 months that engineer moved … <Netflix>… forward not by miles but by light years."

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WHAT HAPPENS WHEN IT IS NOT SAFE TO FAIL?

- Hiding
- Secrecy
- Evasion
- Self-protection
- Finger-pointing
- REPETITION OF ERRORS

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Fremont Assembly Plant

http://en.wikipedia.org/wiki/Fremont_Assembly

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NUMMI plant

http://en.wikipedia.org/wiki/NUMMI

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Tesla Factory

http://en.wikipedia.org/wiki/Tesla_Factory

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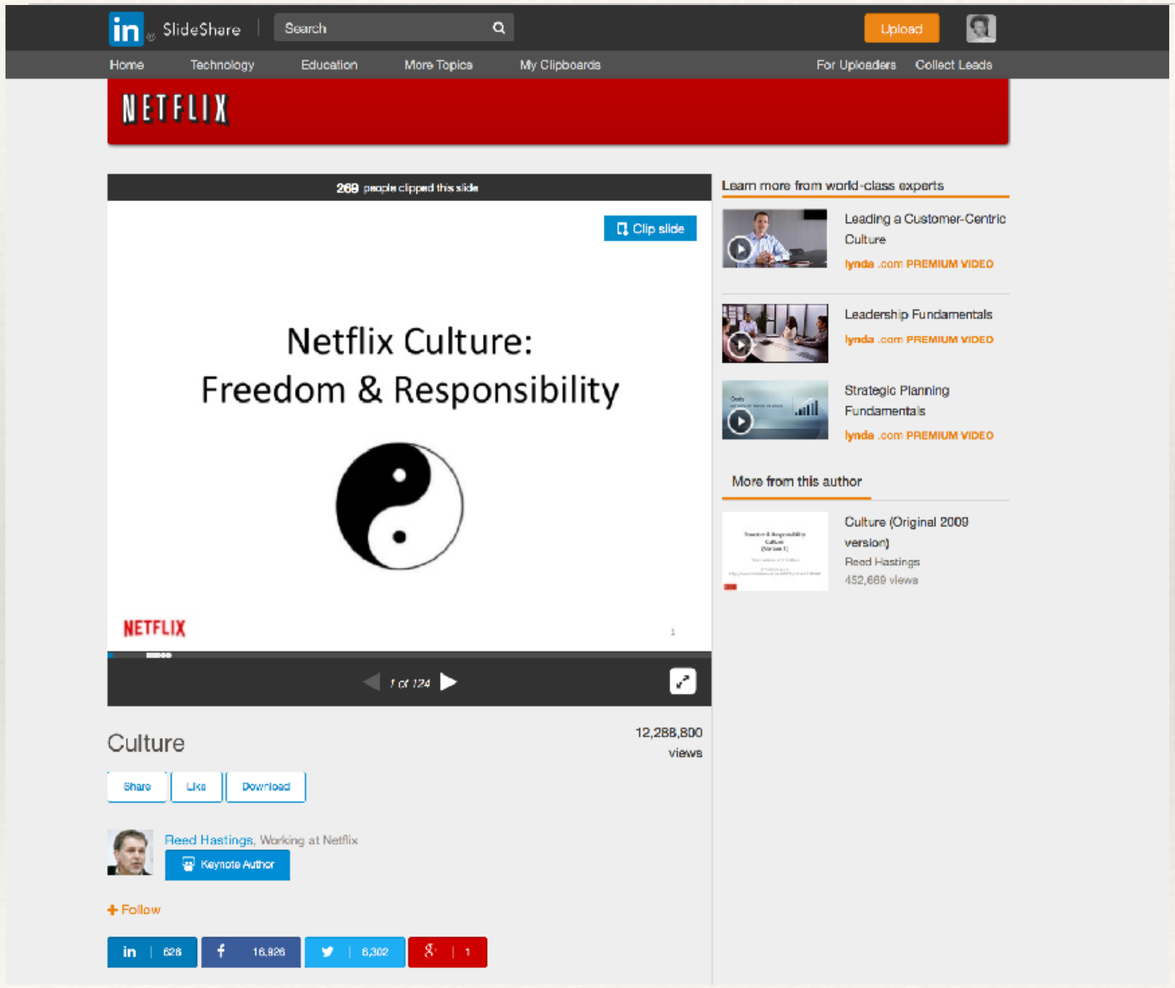
Netflix Culture Deck



https://jobs.netflix.com/culture

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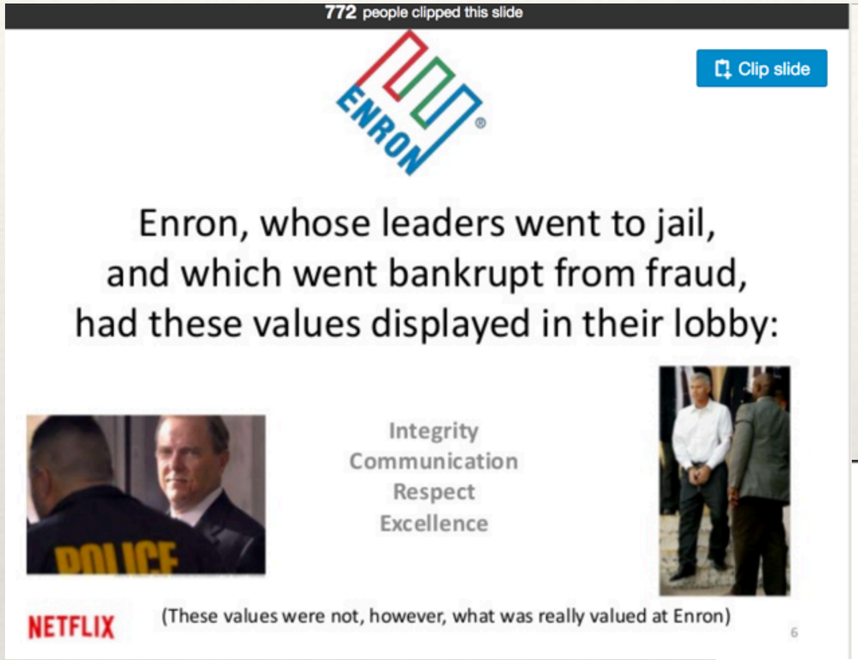
My Favorite Slides



Brilliant Jerks

- Some companies tolerate them
- For us, cost to effective teamwork is too high
- Diverse styles are fine – as long as person embodies the 9 values

The *actual* company values,
as opposed to the
nice-sounding values,
are shown by who gets
rewarded, promoted, or let go

NETFLIX

7

Netflix Vacation Policy and Tracking

"there is no policy or tracking"

There is also no clothing policy at Netflix,
but no one comes to work naked

Lesson: you don't need policies for everything

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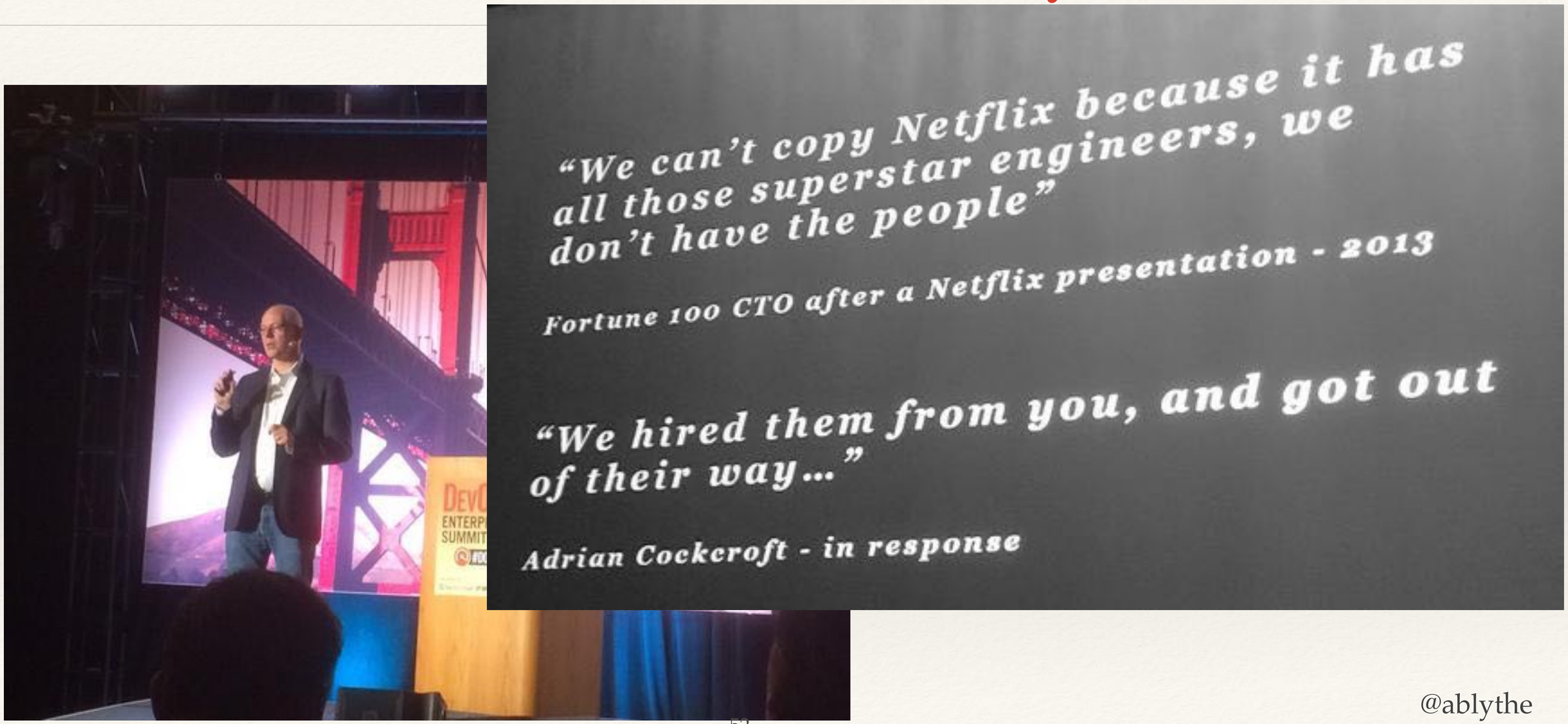
Adrian Cockcroft - Formerly Netflix



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high trust culture

Pathological (*power oriented*)	Bureaucratic (*rule oriented*)	Generative (*performance oriented*)
Low cooperation	Modest cooperation	High cooperation
Messengers shot	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Risks are shared
Bridging discouraged	Bridging tolerated	Bridging encouraged
Failure leads to scapegoating	Failure leads to justice	Failure leads to enquiry
Novelty crushed	Novelty leads to problems	Novelty implemented

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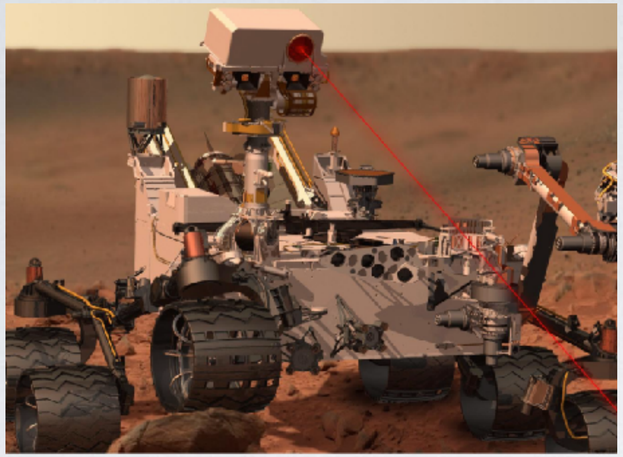
3 TYPES OF MEETINGS

- Root Cause Analysis (2007-2010)
- Team Retrospective Meetings (2010-Now)
- Post-Mortem (2014-Now)

ME IN 2007/2008 - “5 WHY’S”



Mars Land Rover
$125 Million loss
English to Metric Conversion

Intel's Math Error
$475 Million against earning
Math rounding error at 9 significant digits

Ariane 5 Explosion
$370 Million loss
Integer Overflow

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Therac-25

Therac-25 1985-1987

The Bug

short for "data enter"

```
Datent:
  if mode/energy specified then
    begin
      calculate table index
      repeat
        fetch parameter
        output parameter
        point to next parameter
      until all parameters set
      call Magnet
      if mode/energy changed then return
    end
  if data entry is complete then set Tphase to 3
  if data entry is not complete then
    if reset command entered then set Tphase to 0
  return
```

the specification is an index of buildin parameters

```
Magnet:
  Set bending magnet flag
  repeat
    Set next magnet
    Call Ptime
    if mode/energy has changed, then exit
  until all magnets are set
  return

Ptime:
  repeat
    if bending magnet flag is set then
      if editing taking place then
        if mode/energy has changed then exit
  until hysteresis delay has expired
  Clear bending magnet flag
  return
```

CML

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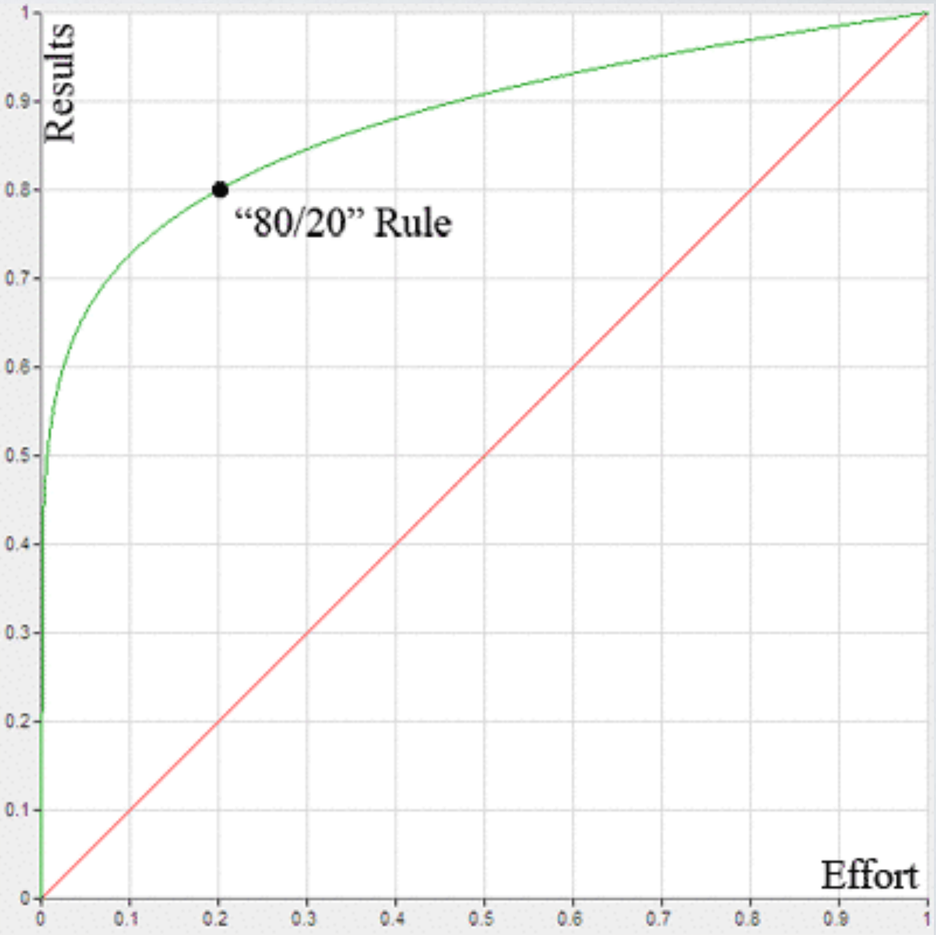
ME IN 2007/2008 - “5 WHY’S”

PARETO'S 80/20 RULE



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ME IN 2007/2008 - “5 WHY’S”

“Haters gonna hate,
hate,
hate,
hate”

–Taylor Swift

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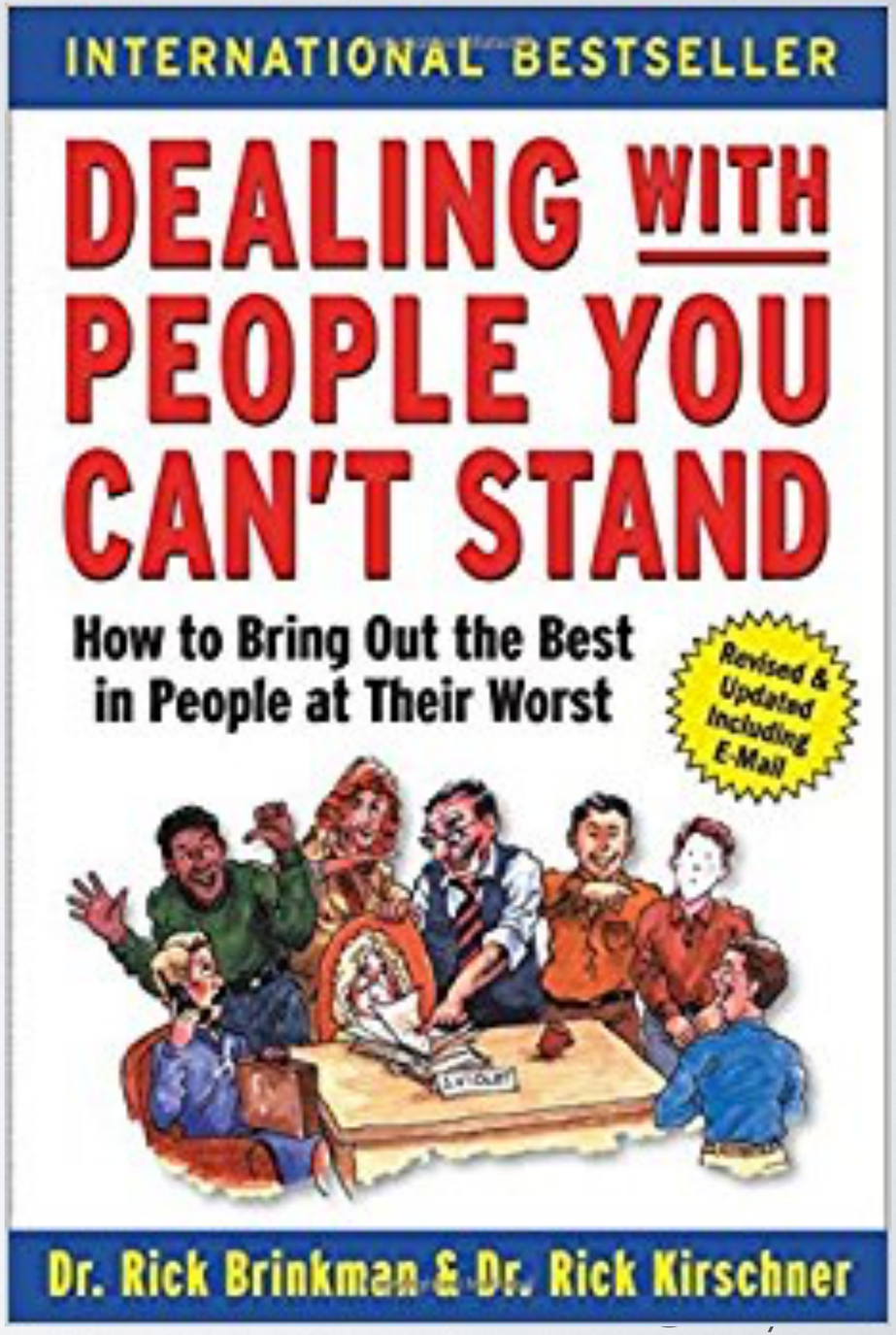
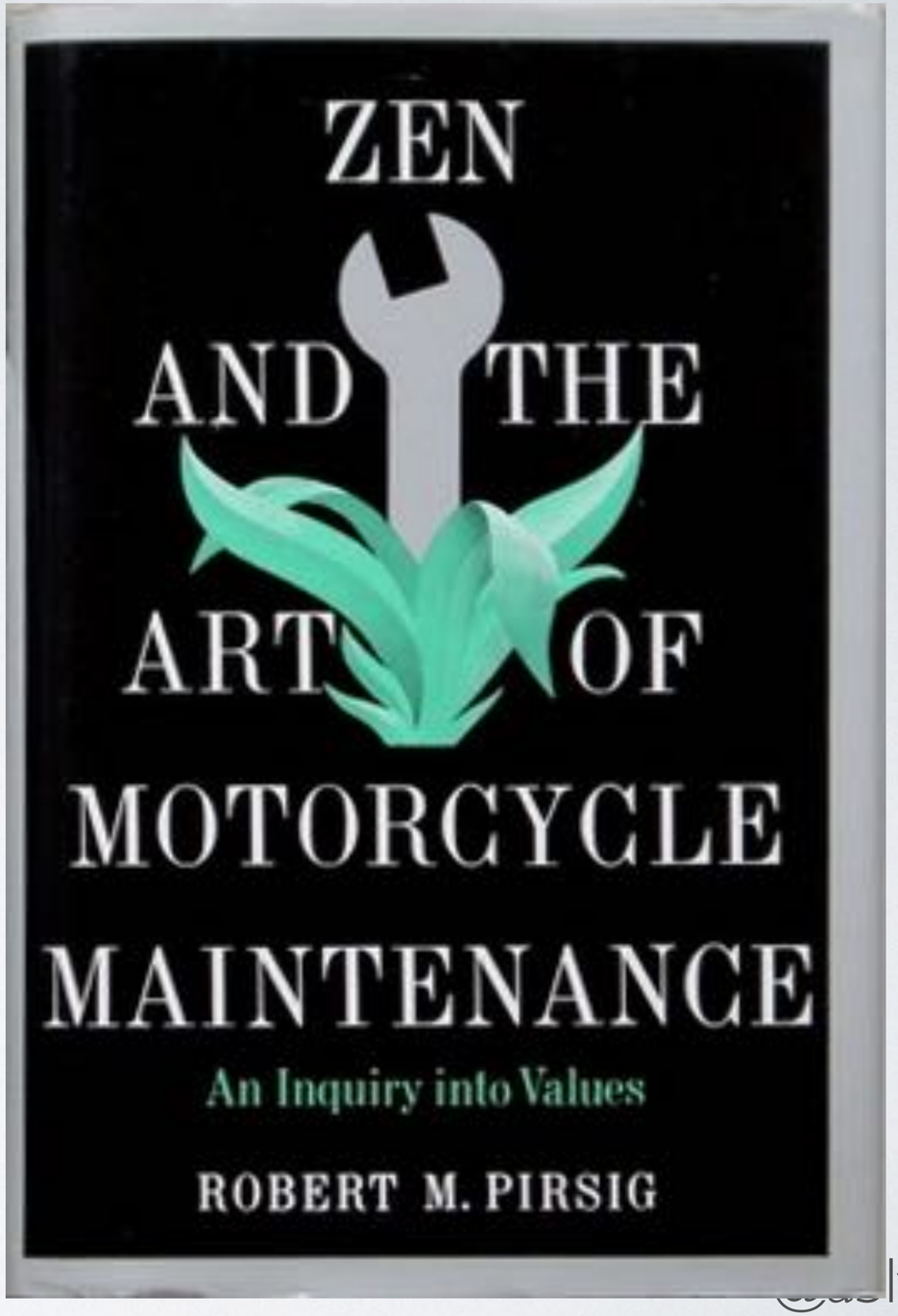
- Grenade Person
- Know-it-alls
- Maybe Person
- No Person
- Nothing Person
- Snipers
- Tanks
- Think-they-know-it-alls
- Whiners
- Yes Person



From the Introduction:

"it should in no way be associated with that great body of factual information relating to orthodox Zen Buddhist practice. It's not very factual on motorcycles, either."



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- **Romantic** - a friend of the narrator decides not to learn how to maintain his expensive new motorcycle. When something on the bike breaks he is frustrated and needs to rely on professional mechanics to repair it.

- **Classical** - the narrator has an older bike that he is usually able to diagnose and repair through rational problem solving.

"Another flaw in the human character is that everybody wants to build and nobody wants to do maintenance."

– Kurt Vonnegut, Hocus Pocus

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5 WHY'S HAVE FALLEN OUT OF FAVOR

- https://www.kitchensoap.com/2014/11/14/the-infinite-hows-or-the-dangers-of-the-five-whys/
- Really asking "How?" and doing this in a group is important
- Even though this is easy to grasp, it is tunnel-visioned

"As a result of these and other changes, Cerner's KLAS ranking has skyrocketed, moving from seventh to second in a four-year period (December 2007 to December 2011)."

–Adam Gale, President, KLAS

http://healthsystemcio.com/2012/04/09/how-cerner-was-able-to-turn-the-corner/

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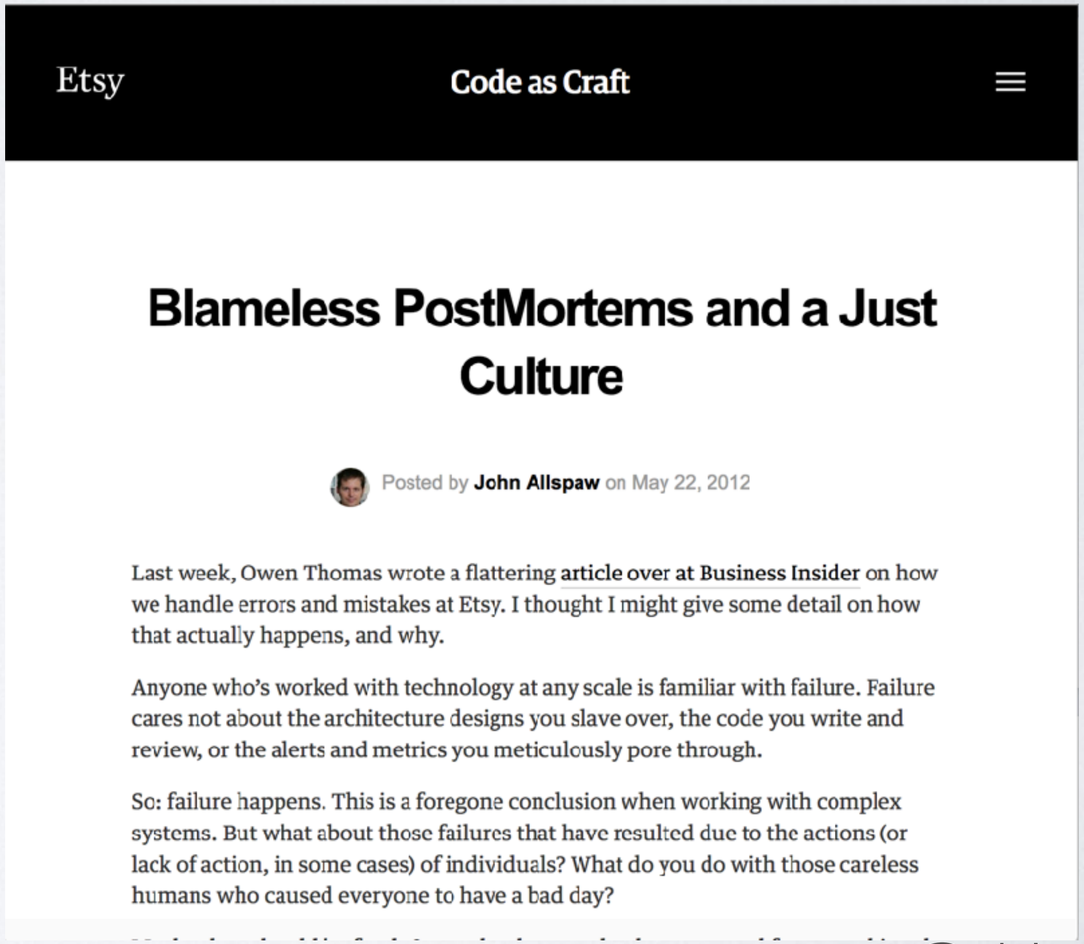
POST MORTEM MEETING

- Before meeting:
  - Time line of incident - facts, assumptions, expectations
- During meeting
  - Level set expectations
  - Discuss without Blame
  - Only take action items that can be assigned and completed in next week



Etsy Code as Craft

Blameless PostMortems and a Just Culture

Posted by **John Allspaw** on May 22, 2012

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So: failure happens. This is a foregone conclusion when working with complex systems. But what about those failures that have resulted due to the actions (or lack of action, in some cases) of individuals? What do you do with those careless humans who caused everyone to have a bad day?

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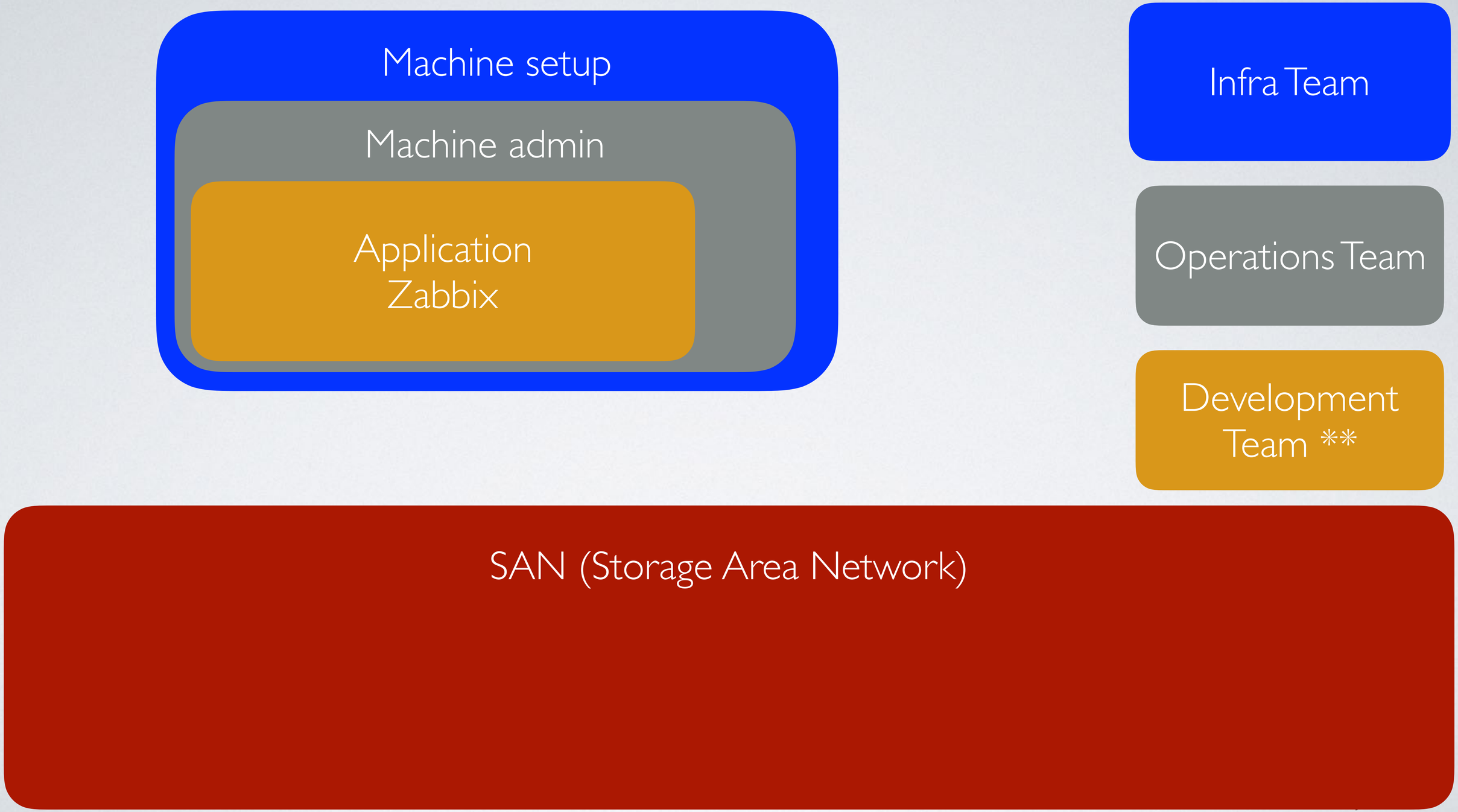
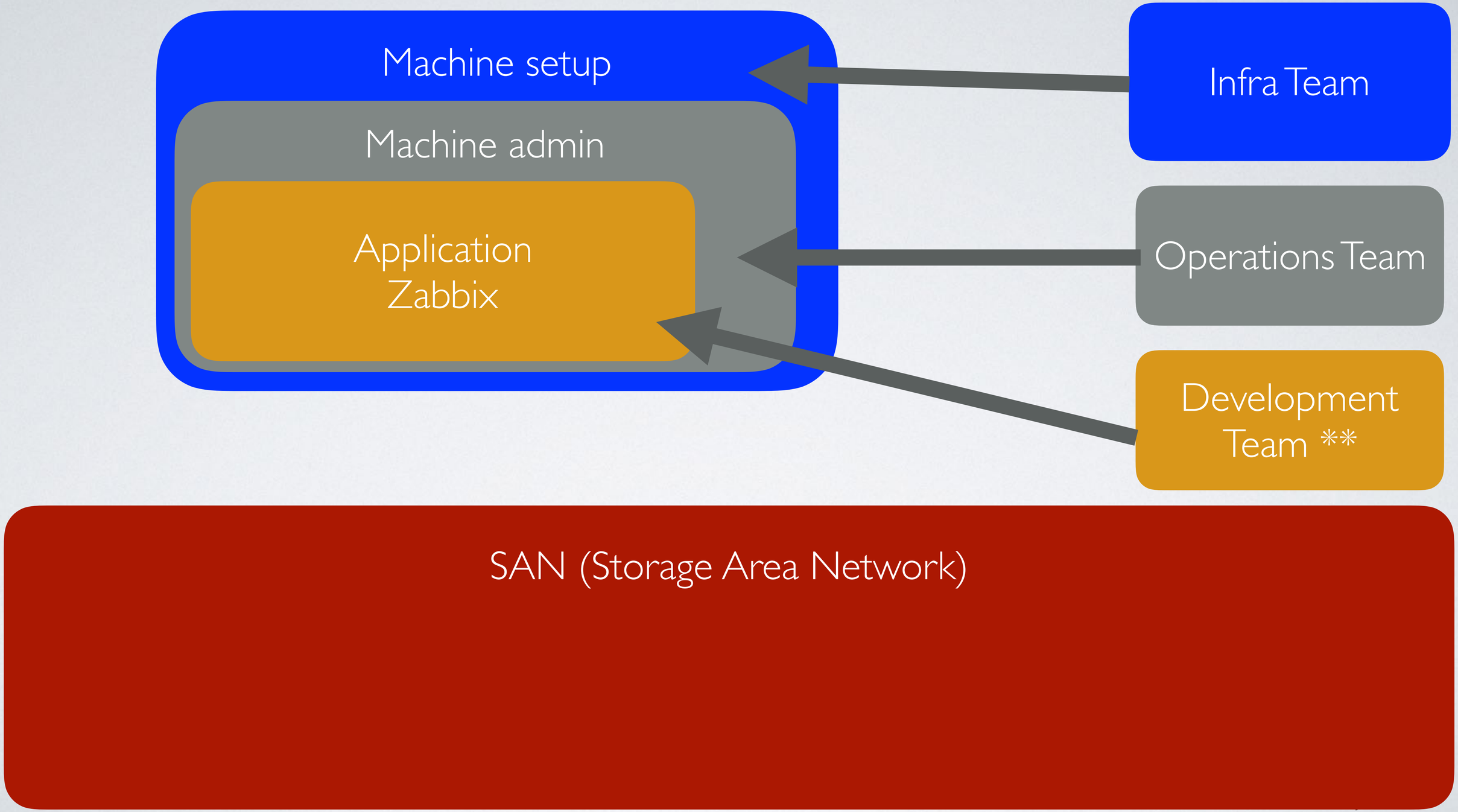

Machine setup
Machine admin
Application
Zabbix
Infra Team
Operations Team
Development
Team **
SAN (Storage Area Network)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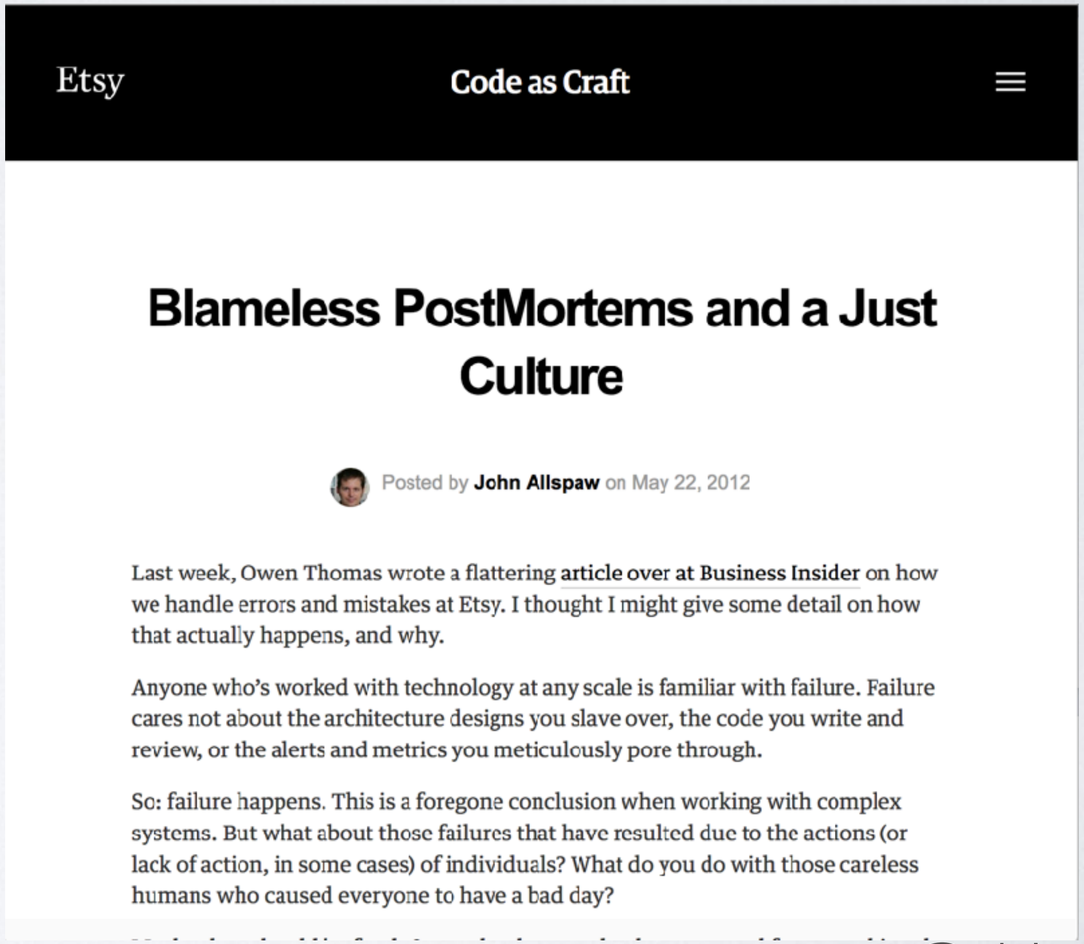

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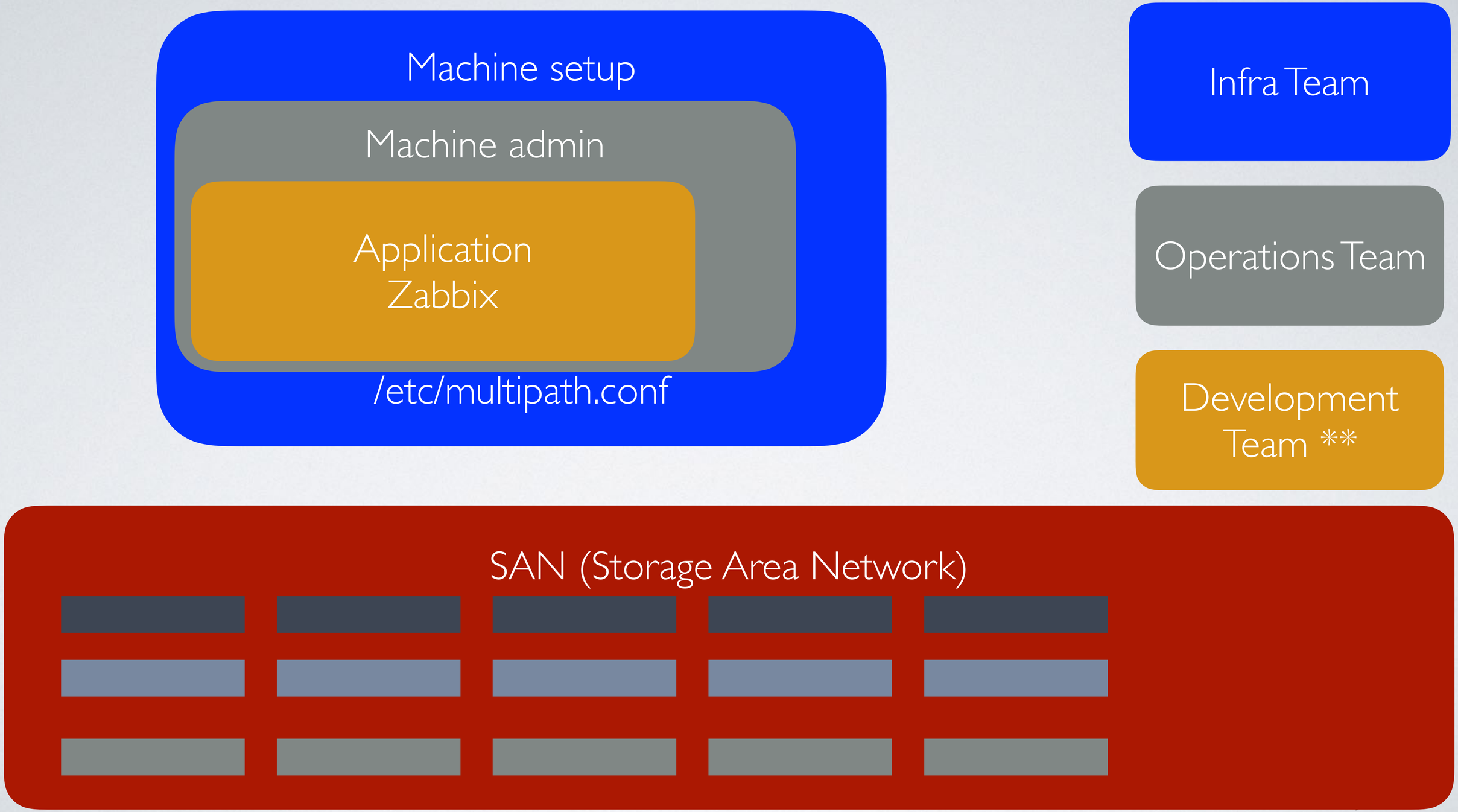
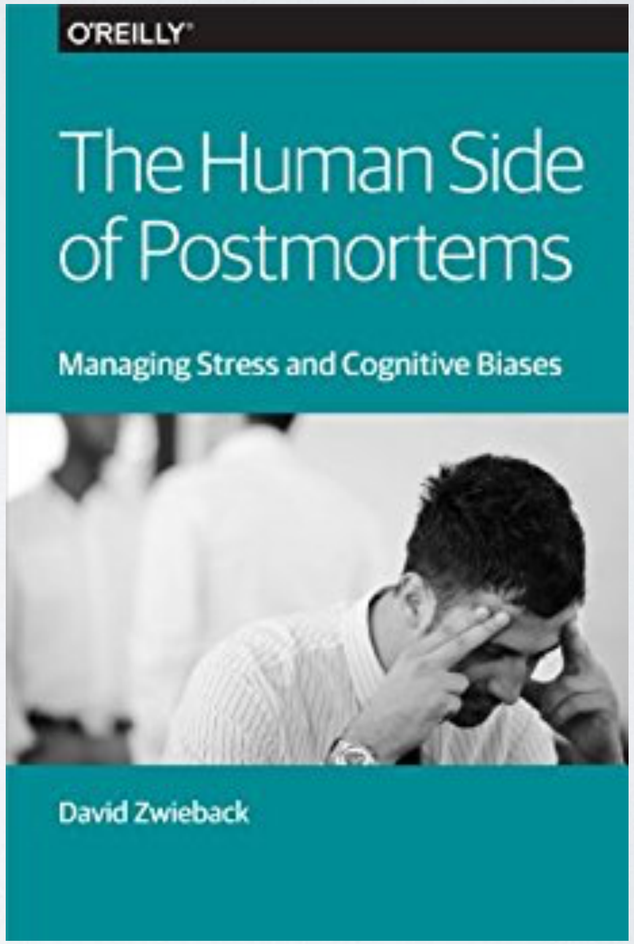

Machine setup
Machine admin
Application
Zabbix
/etc/multipath.conf
Infra Team
Operations Team
Development
Team **
SAN (Storage Area Network)

COGNITIVE BIASES

- Hindsight Bias
- Outcome Bias
- Availability Bias (AKA Recency Bias)
- Sunk Cost Bias
- Confirmation Bias



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RETROSPECTIVE MEETINGS

- 10 minutes to quietly review the past two weeks
- Write down 3 biggest accomplishments (team or individual)
- Discussion and classification
  - 😡 🙁 😐 🙂 😁
- Thank you (chance to formally in front of everyone thank someone on the team)
- Action Items (to be followed up on next meeting)
- Post publicly

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Must be async
msg notification
(calls many things)
Can be sync
invitation notif
DO NOT ERASE!
DISLIKE/CHANGE
LIKE/REPEAT
NEW IDEAS
THANK YOU'S
- find works that consumes Oracle.
- Only apply to msg notificat.

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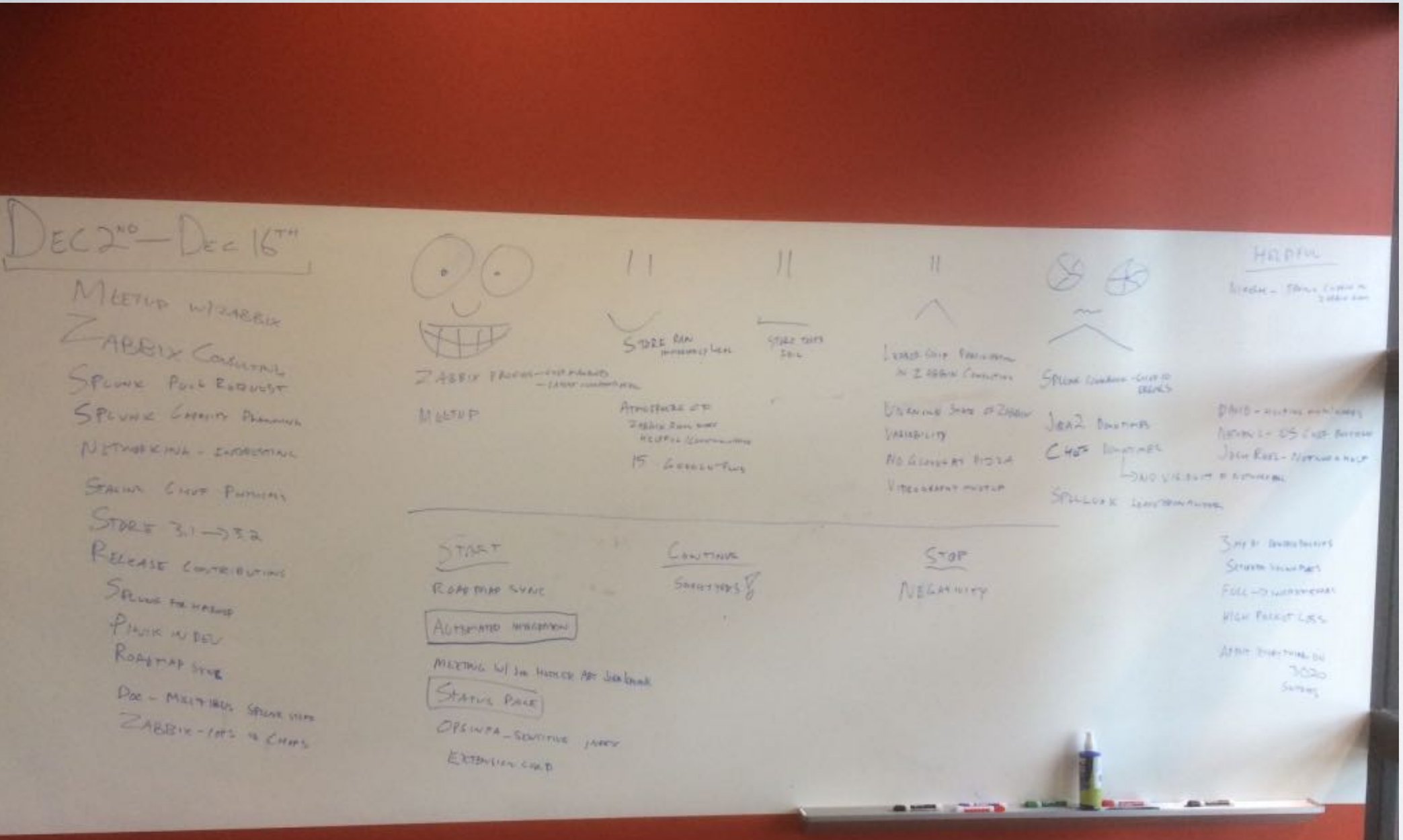
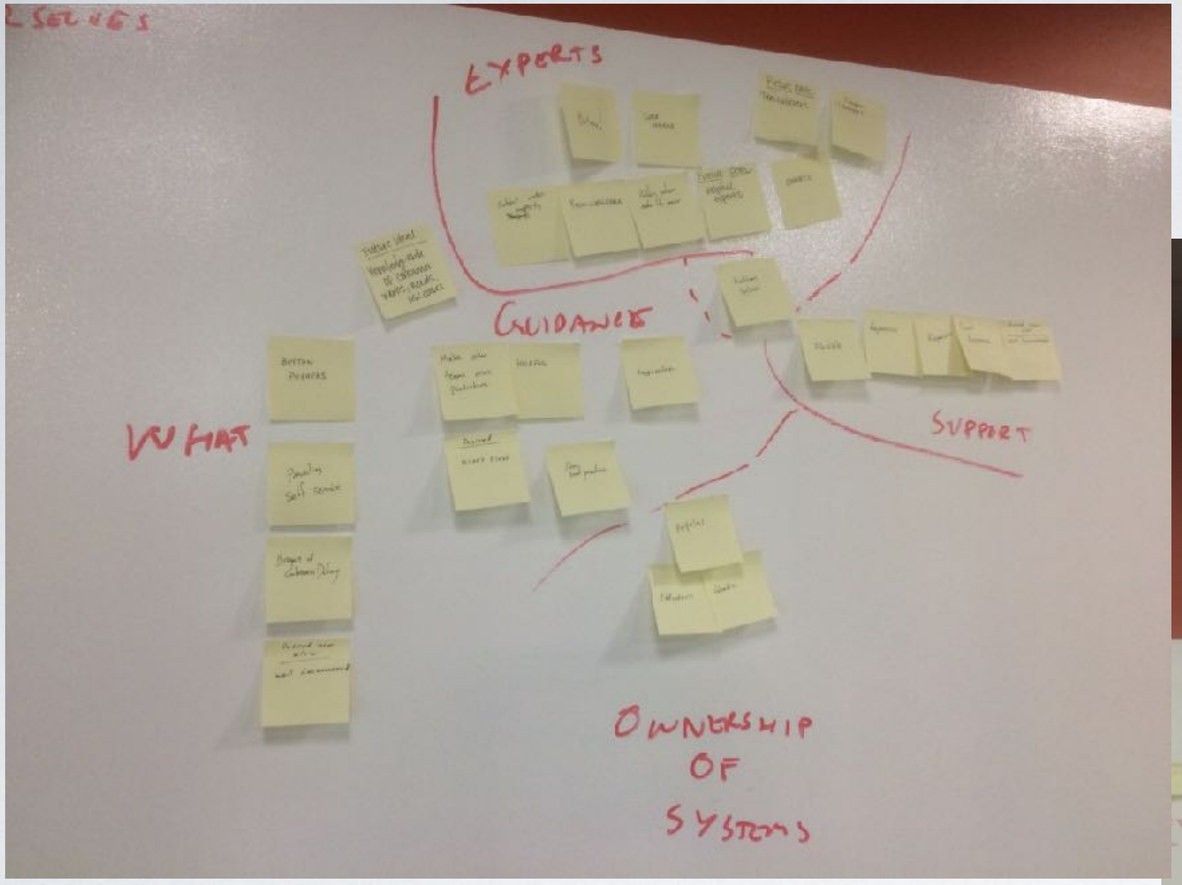
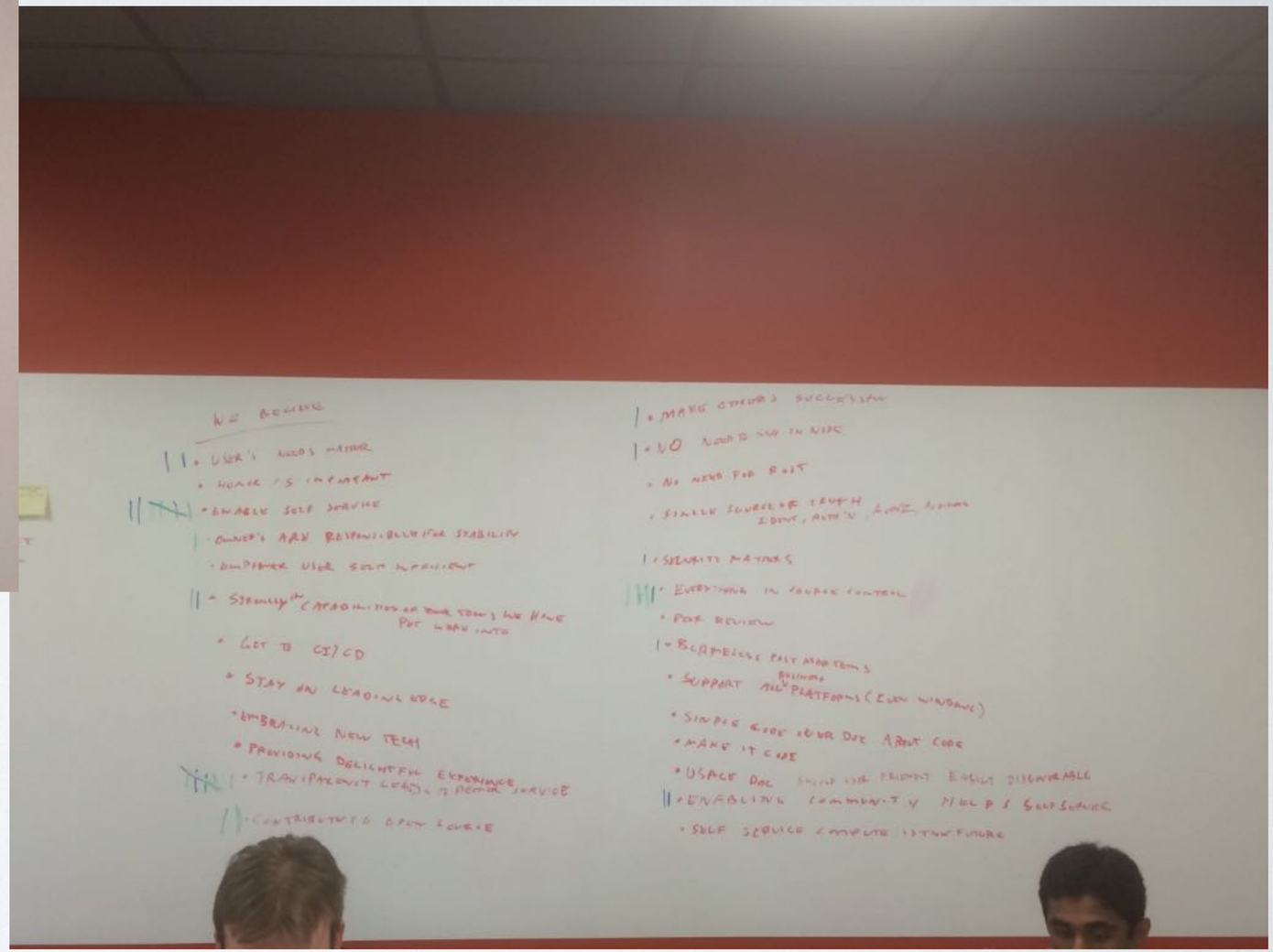

DEC 2ND — DEC 16TH
MEETUP W/ ZABBIX
ZABBIX CONSULTING
SPLUNK PULL REQUEST
SPLUNK CONFIG PHILOSOPHY
NETWORKING - INTERNATIONAL
STORE 3.1 → 3.2
RELEASE CONTRIBUTIONS
PLUNK IN DEV
ROADMAP SYNC
AUTOMATED MIGRATION
STATUS PAGE
EXTENSION CORD
CONTINUE
STOP
NEGATIVITY
HELPFUL

@ablythe

"We Believe"





What do we want people to view our team as?

@ablythe

We Believe…

- A minimal number of associates need to directly touch nodes (approaching zero)
- These tools matter – improve the lives of our users
-

- Tools should be hardened - so that we can find the root cause and drive corrective action

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“Now, you can say your Daddy is right and the other little child's Daddy is wrong, but the universe is an awfully big place. There is room enough for an awful lot of people to be right about things and still not agree.”

– Kurt Vonnegut, Sirens of Titan

@ablythe

Oliver Burkeman @oliverburkeman · Jul 15

This wk's col: The real problem with meetings, and why we should all get a bit worse at communicating in the office theguardian.com/lifeandstyle/2…

1 4 12

John Allspaw
@allspaw

Following

Replying to @oliverburkeman

Excellent. The dilemma of course is accurately anticipating which meetings will repair costly potential misunderstandings, and which won't.

9:07 AM - 15 Jul 2017

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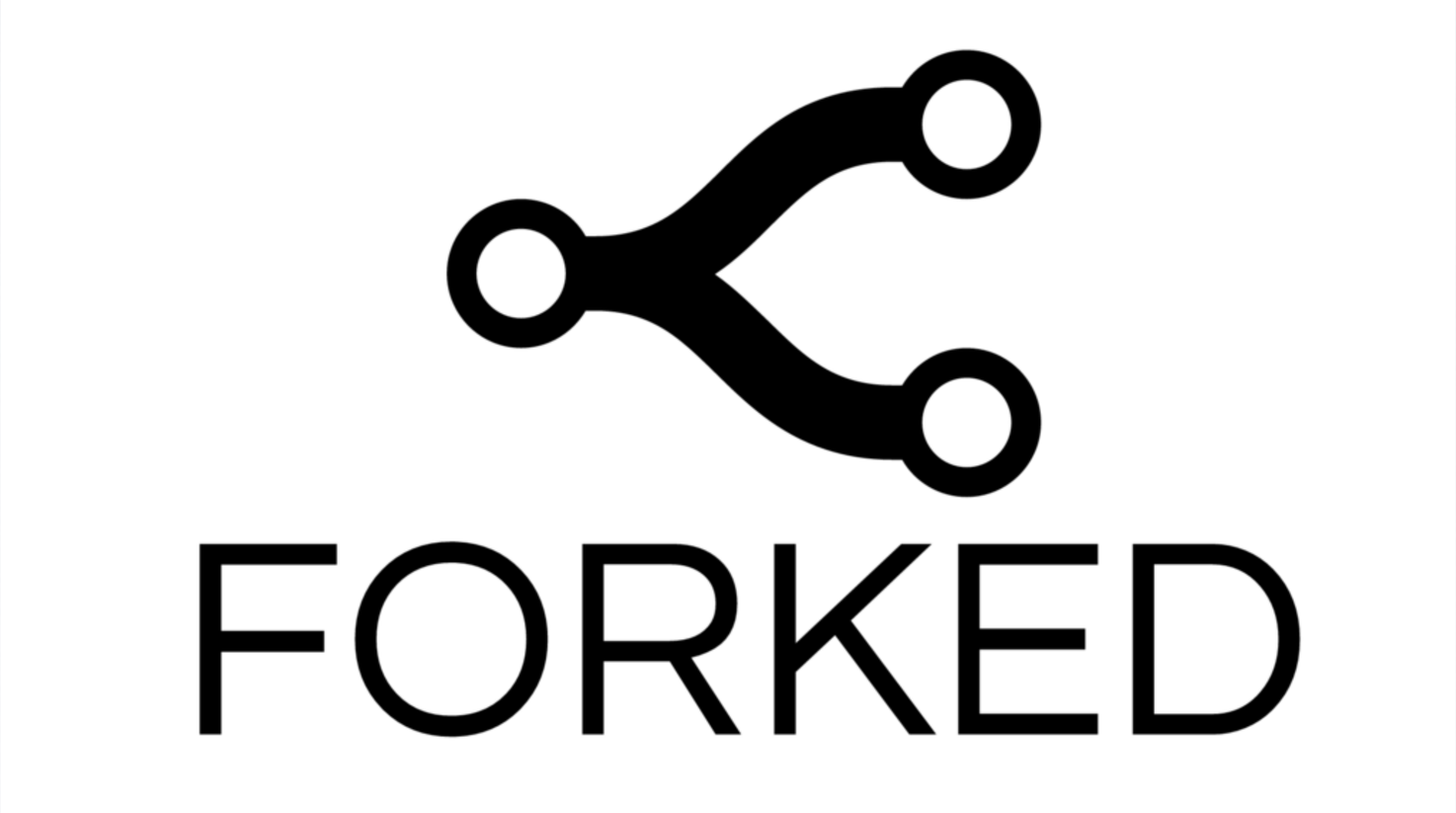
ALTERNATE UNIVERSE



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ONE CHANGE:
REGULAR RETROSPECTIVE MEETINGS

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Rob - Manager

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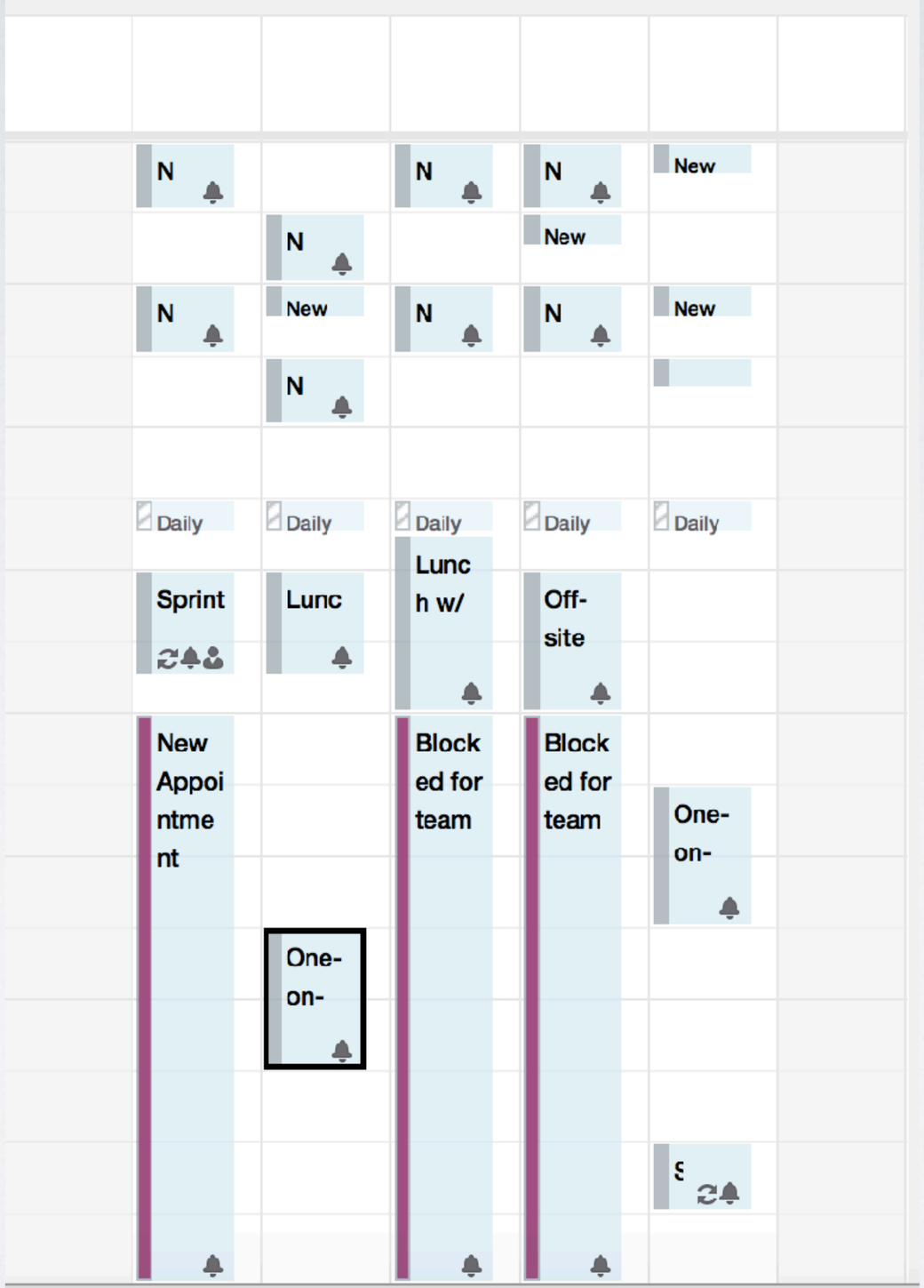
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Rob - Manager

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Ethan
Sr. Engineer

@ablythe

Shelly
Sr. Engineer

@ablythe

Tabitha
Engineer

@ablythe

Michael
Engineering Intern

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DIFFERENCES THIS TIME AROUND

- Group Chat (Slack)
- Alert assigned to rotation
- Alert Posted to Group Chat
- Acknowledgement visible to team
- Code build in CI/CD
- Rollback switch DNS back (10-min mark)
- Blameless Post-Mortem Scheduled

- ~~One-on-one IM~~
- ~~Alert just to Shelly's email~~
- ~~Alert just to Shelly's email~~
- ~~Shelly forwarding email/IM'ing people~~
- ~~Code manually deployed by Ethan~~
- ~~Rollback manually removing code~~
- ~~Team left defeated/dejected~~

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BLAMELESS POST-MORTEM

- Test Environment just like Prod (found differences between two)
- Use dns-a and dns-b (As do today)
  - However test before making the switch

Trust

Justice

…BUILDING A HIGH TRUST CULTURE IS LIKELY THE LARGEST MANAGEMENT CHALLENGE OF THIS DECADE.

Gene Kim

@ablythe

TYPES OF MEETINGS

- Root Cause Analysis Meeting (Monthly)
- Post Mortem Meeting (per Incident)
- Retrospective Meeting (Fortnightly)

- To Err is Human
- Blame does NOT do what you think it does
- Group reflection is key - regardless of what type of meeting you have
- Justice comes in more forms that Retributive

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“I think about my education sometimes. I went to the University of Chicago for awhile after the Second World War. I was a student in the Department of Anthropology. At that time they were teaching that there was absolutely no difference between anybody.

They may be teaching that still.

Another thing they taught was that no one was ridiculous or bad or disgusting. Shortly before my father died, he said to me, ‘You know – you never wrote a story with a villain in it.’

I told him that was one of the things I learned in college after the war.”

–Kurt Vonnegut, Slaughterhouse Five

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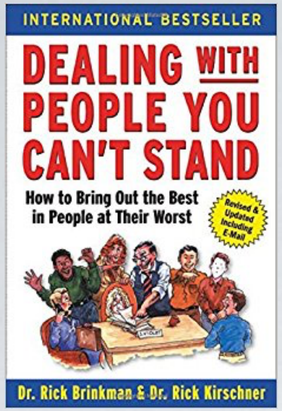
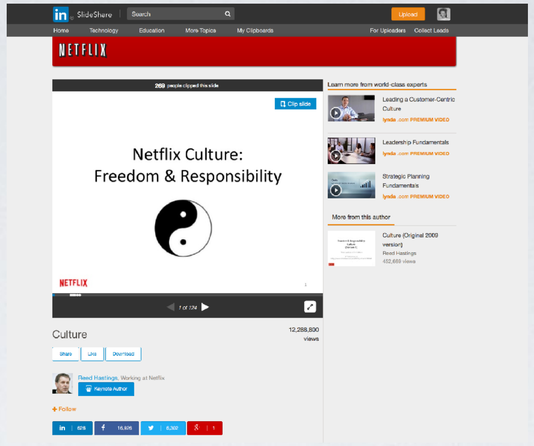
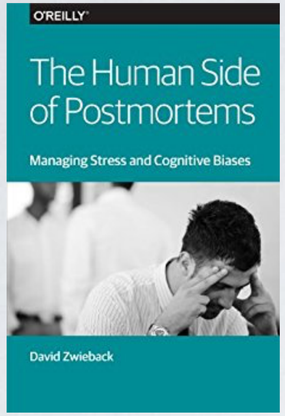


Dr. Rick Brinkman
Dr. Rick Kirchner
Dealing with People
You Can't Stand

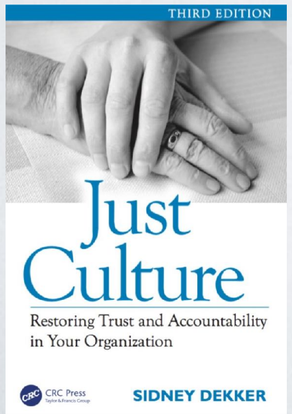


Reed Hastings
Culture Deck

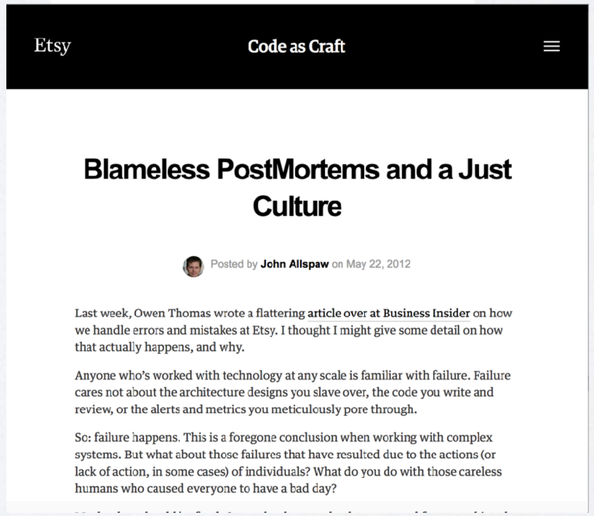


David Zweiback
Human Side of
Postmortems

Paul Graham
Makers Schedule vs.
Manager's Schedule



Sidney Dekker
Just Culture



John Allspaw
Blameless PostMortems
and a
Just Culture

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HTTP://AARONBLYTHE.ORG/