

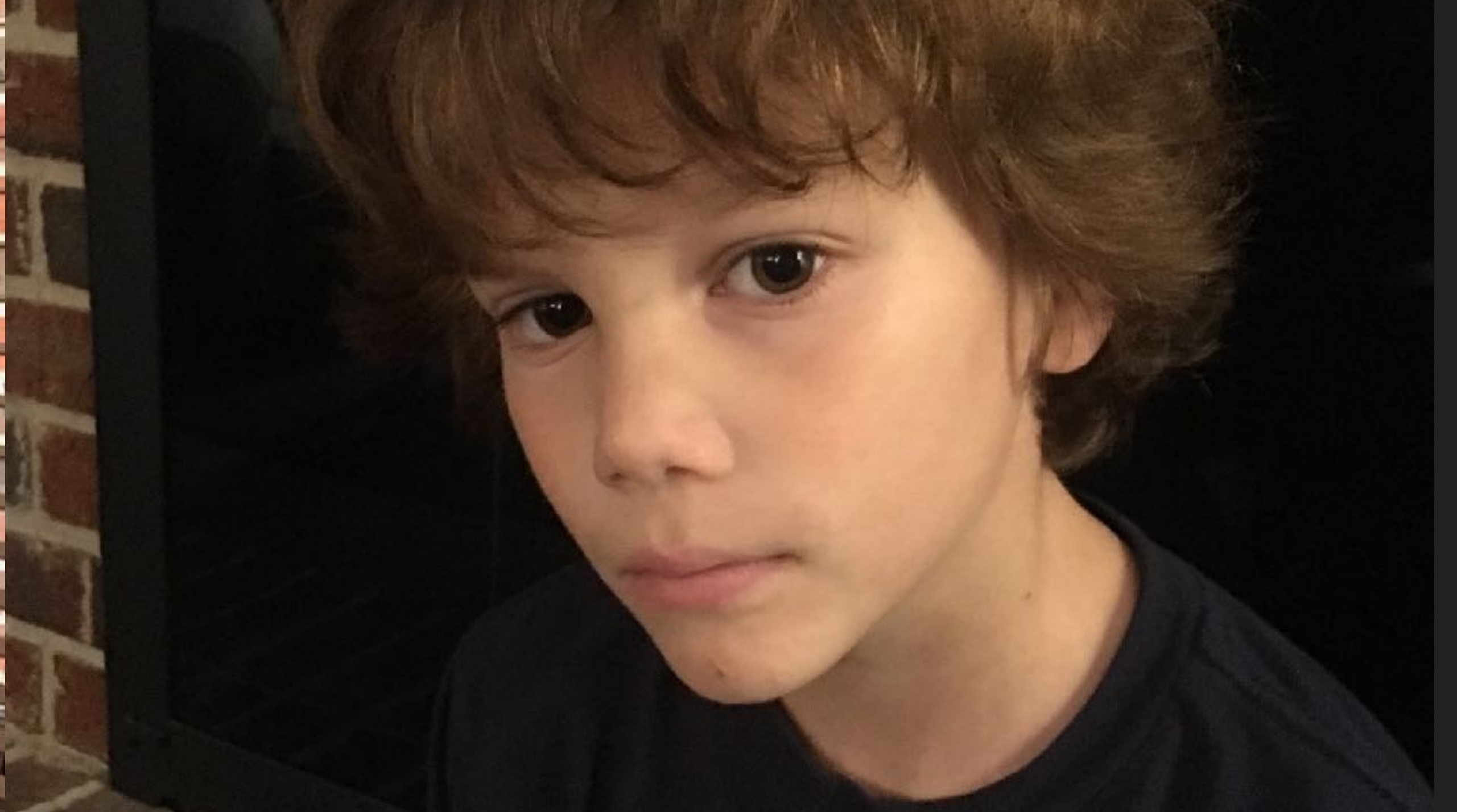
HOW TO INFECT YOUR ORGANIZATION

WITH HUMANE OPS



Matty Stratton
DevOps Evangelist, PagerDuty

 @mattstratton





Matty Stratton

@mattstratton

Describe your on-call situation in three words:

1:00 PM - 14 May 2018



Rich Adams @r_adams · 6h

Replying to @mattstratton

This is fine.



Josh Hull @VestigialEthics · 4h

Replying to @mattstratton @ChrisShort

You did what?



Dana Bowlin @bowlindm · 3h

Replying to @mattstratton

Just call everyone



Victor Palacio @vjpalacio · 3h

Please mute yourself



Emily Freeman @editingemily · 5h

Replying to @mattstratton

A dumpster fire.



Jan Mara @skullboxx · 4h

Replying to @mattstratton

Works in Dev!



JJ Asghar @jjasghar · 4h

Replying to @mattstratton

Back in the day?

"Scotch, scotch, scotch"

50,000 RESPONDERS RECEIVING A TOTAL OF 760 MILLION NOTIFICATIONS

- ▶ 60 million notifications during dinner hours
- ▶ 82 million notifications during evening hours
- ▶ 250 million notifications during sleeping hours
- ▶ 122 million notifications on weekends
- ▶ A total of 750,000 nights with sleep-interrupting notifications
- ▶ A total of 330,000 weekend days with interrupt notifications

THE MOST MEANINGFUL METRICS ON ATTRITION ARE

- ▶ Number of days where a responder's work and life are interrupted
- ▶ Number of days when a responder is woken overnight
- ▶ Number of weekend days interrupted by notifications.



COINED THE TERM "MEME"



**IS NOW IN A MEME
ABOUT MEMES**

EXAMPLES OF MEMES ARE TUNES, IDEAS, CATCH-PHRASES, CLOTHES FASHIONS, WAYS OF MAKING POTS OR OF BUILDING ARCHES. JUST AS GENES PROPAGATE THEMSELVES IN THE GENE POOL BY LEAPING FROM BODY TO BODY, SO MEMES PROPAGATE THEMSELVES IN THE MEME POOL BY LEAPING FROM BRAIN TO BRAIN VIA IMITATION.

Richard Dawkins

SNOW CRASH

- ▶ In the book, "Snow Crash" itself is a neural-linguistic virus.
- ▶ The bad guys figure out how to unlock it, and it spreads from hacker to hacker like a meme
- ▶ Plus, lots of swordplay

**"IDEOLOGY IS A VIRUS."
- NEAL STEPHENSON**



WHAT IF YOU ARE THE SUPREME LEADER?

- ▶ “Command and control” doesn’t work
- ▶ Use measurement for good, not for evil
- ▶ Avoid “executive swoop”



MIDDLE MANAGEMENT TIPS

- ▶ Encourage safe post-incident review spaces
- ▶ Drive for a culture of learning
- ▶ You hired smart people - use them



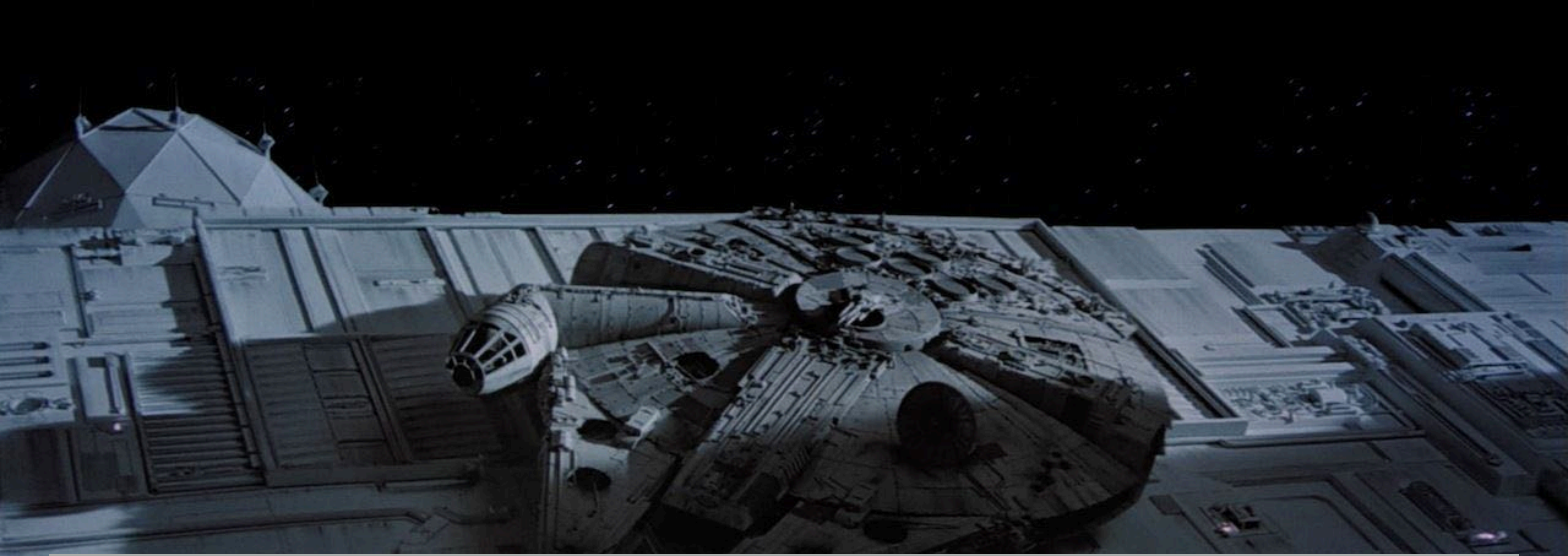
A CULTURE OF LEARNING

- ▶ In a generative, performance-oriented organization, “failure leads to inquiry.”
- ▶ Don’t take my word for it. Ask Ron Westrum.
- ▶ You can also ask Dr. Nicole Forsgren. She’s here.

<http://bit.ly/2KpzKKW>



**USE THE FORCE, EVEN
IF YOU AREN'T A JEDI**



REVIEW ALL THE THINGS

NORMALIZATION OF DEVIANCE

- ▶ The gradual process through which unacceptable practice or standards become acceptable. As the deviant behavior is repeated without catastrophic results, it becomes the social norm for the organization.
- ▶ This happened to NASA. Twice.
- ▶ In our case, we start to accept alerts or degradations as acceptable.

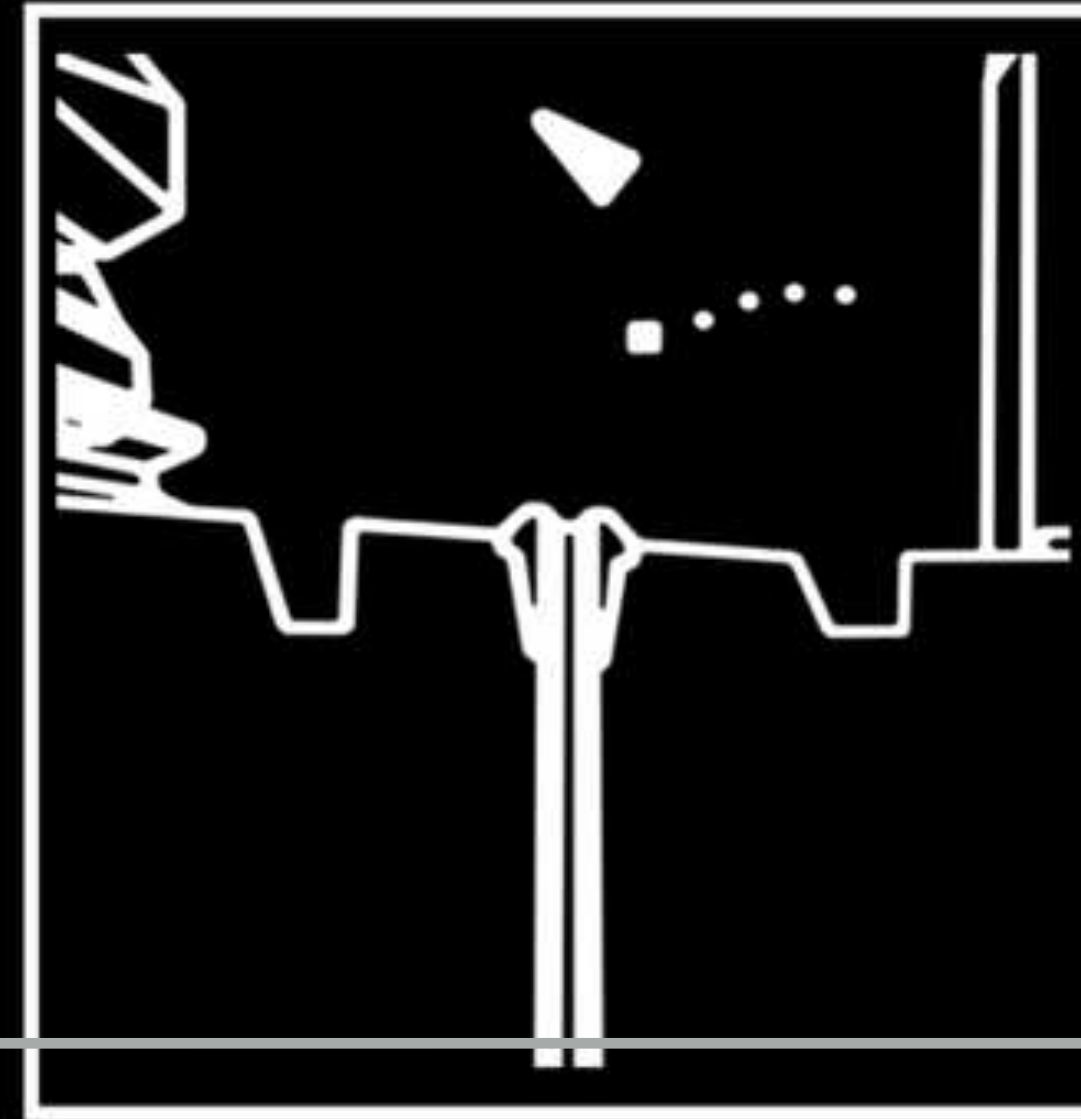
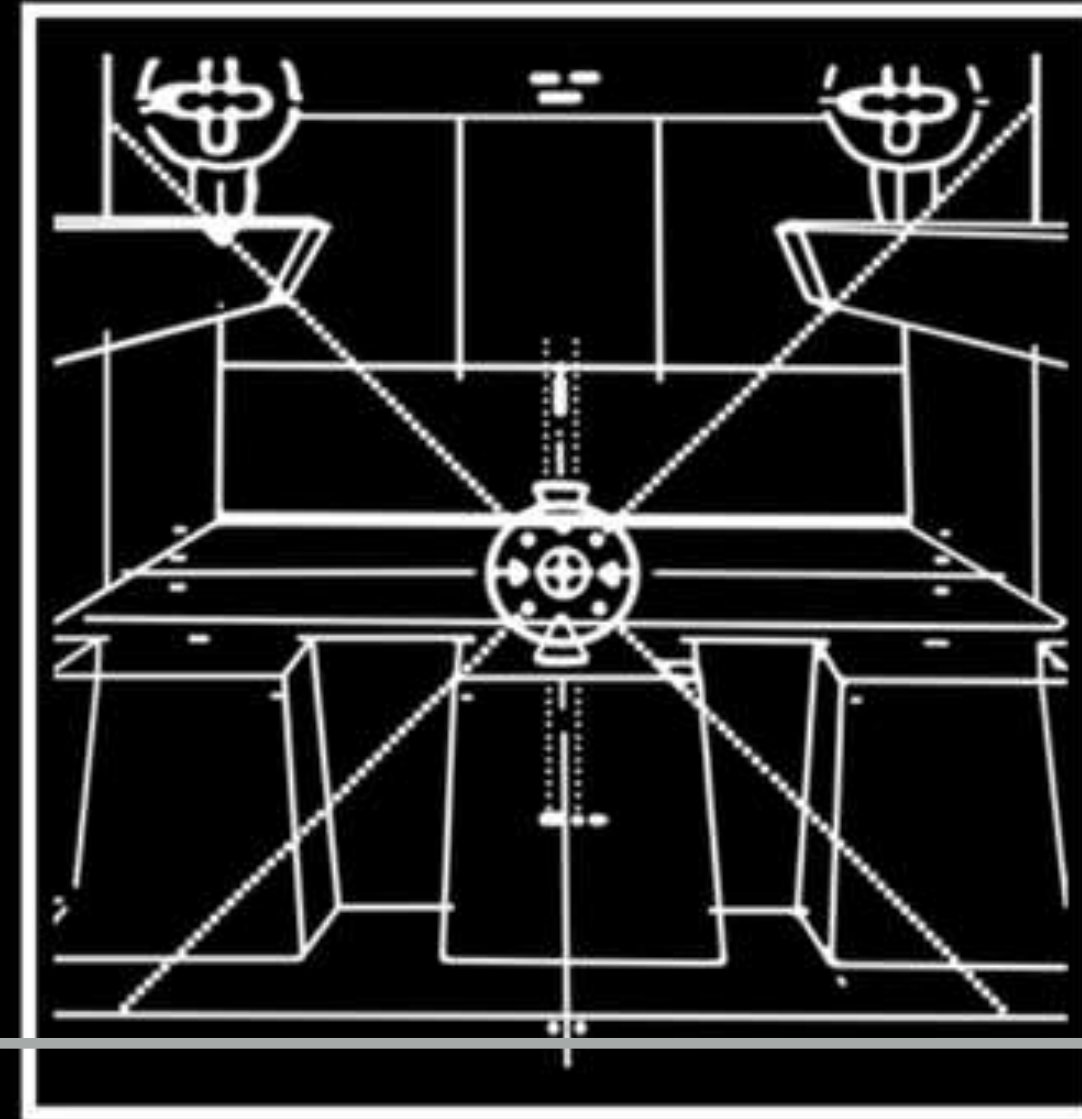
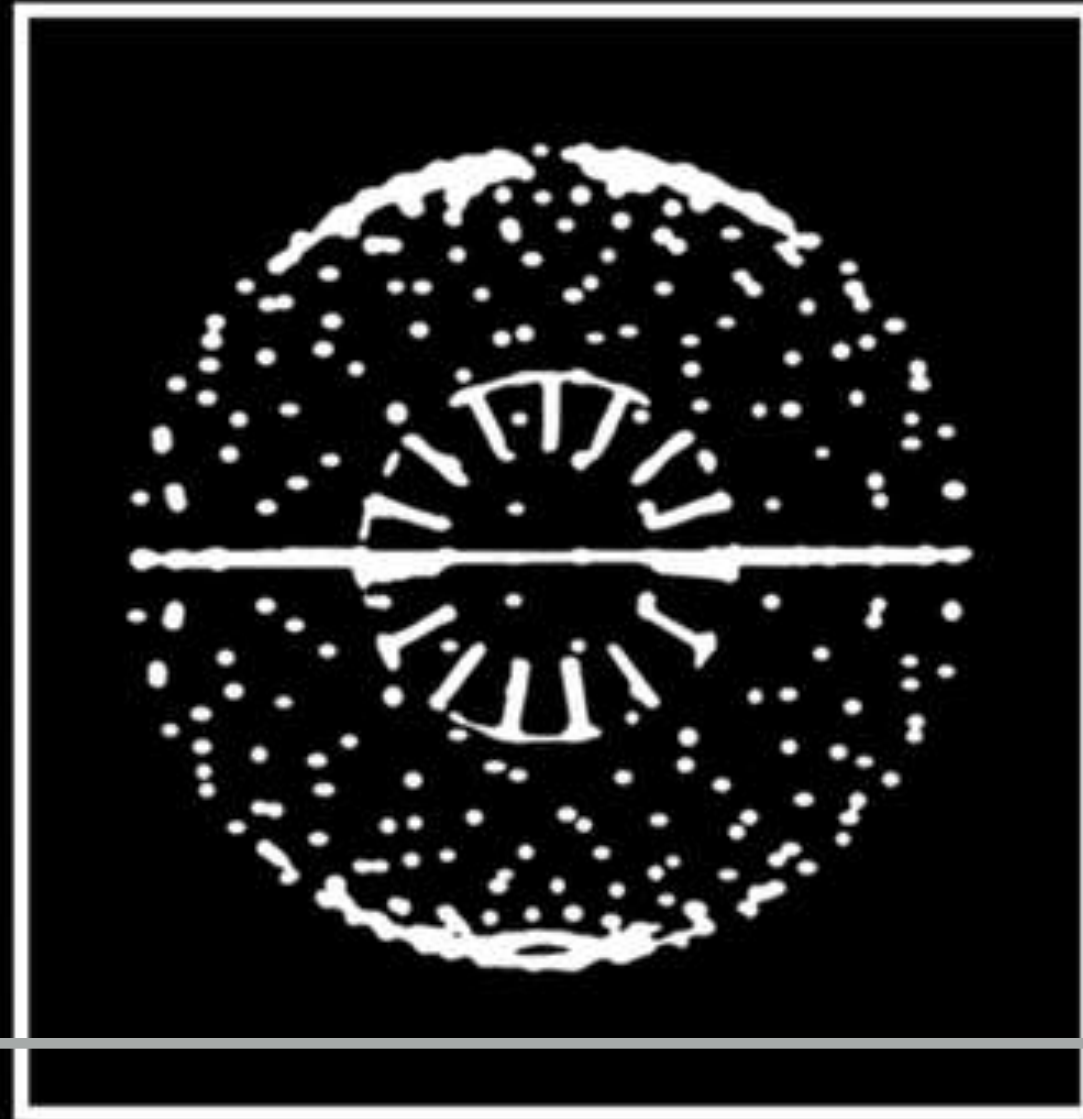
<http://bit.ly/2lhj1wV>



QUESTION METRICS

WHY ARE WE USING THESE NUMBERS?

- ▶ What is the data that drive your incident process
- ▶ Are your metrics tied to business outcomes?
- ▶ Correlation doesn't always equal causation



SIMPLE. ALWAYS.

**THE MORE RESILIENTLY THE SYSTEM IS
DESIGNED, THE MORE LIKELY IT IS TO CAUSE
A BUSINESS IMPACT**

Stratton's Law of Catastrophic Predestination

COMMUNICATE.

TALK TO PEOPLE

- ▶ Who are your customers? What are their expectations?
- ▶ Whose customer are you? Can you help them out?
- ▶ What are the perceptions of your team?



HUMANS, PEOPLE ARE

- ▶ Consider contextual on-call
- ▶ The Golden Rule
- ▶ Bake cookies



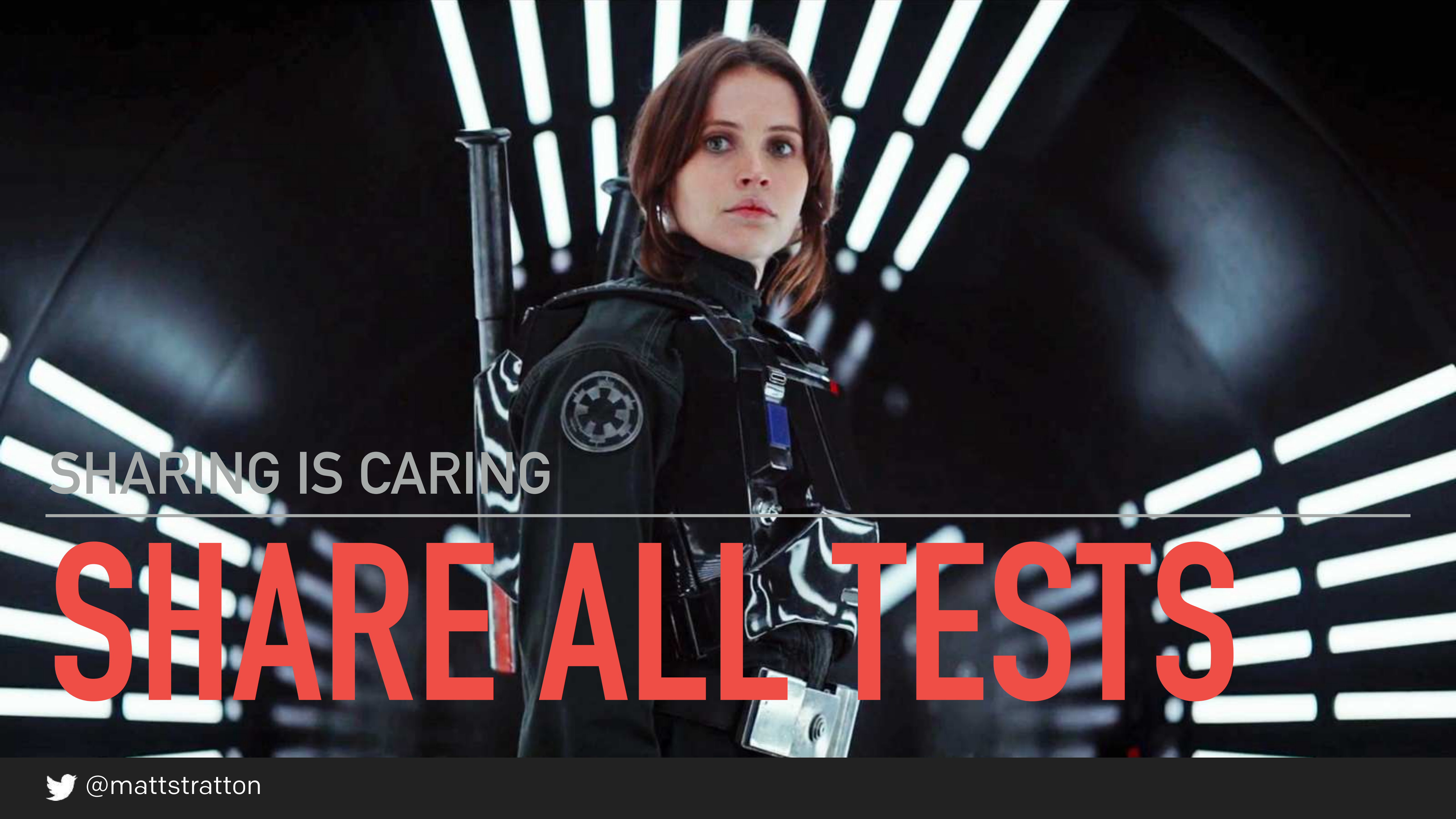
A close-up shot of a man with a mustache, wearing a flight suit, smiling in a cockpit. The background shows other crew members and cockpit equipment.

LEARN TO TAKE COMMAND

INCIDENT COMMAND

DURING A CALL

- ▶ Have clearly defined roles
- ▶ Avoid bystander effect
- ▶ Rally fast, disband faster
- ▶ Don't litigate severity
- ▶ Have a clear mechanism for making decisions



SHARING IS CARING

SHARE ALL TESTS

TESTS ARE FOR SWE AND SRE BOTH

- ▶ All functional tests used in preproduction should have a corresponding monitor in production
- ▶ All monitoring functionality in production should have corresponding tests in the build/release process
- ▶ Monitoring is testing with at time dimension. **There should be full parity between preproduction and production.**



EVERY SPRINT

DO ONE NICE THING

HELP YOUR RESPONDERS IN EACH AND EVERY SPRINT

- ▶ In each sprint/work unit, add value to your responders
- ▶ Even if it's not on a card
- ▶ You rebel, you.

SOME EXAMPLES

- ▶ Provide better context in logging (stacktraces alone don't count)
- ▶ Remove some technical debt. Yes, you have some.
- ▶ Add some (useful) tests
- ▶ Remove something unused

- ▶ If you use feature flags, add a description field to the configuration
- ▶ If you use runbooks, ensure they are up to date every time you cut a release. If you don't do this, abandon the runbook altogether (an incorrect runbook is considered harmful)
- ▶ SIMPLIFY, MAN!



@MATTSTRATTON

[LINKEDIN.COM/IN/MATTSTRATTON](https://www.linkedin.com/in/mattstratton)

[MATTSTRATTON.COM](https://mattstratton.com)

[ARRESTEDDEVOPS.COM](https://arresteddevops.com)

**SHARE YOUR ON-CALL
STORIES WITH ME LATER**

 @mattstratton

FURTHER READING AND REFERENCES

- ▶ Improving Your Employee Retention With Real-Time Ops Data - <http://bit.ly/2rGTnq4>
- ▶ Page It Forward! - <http://bit.ly/2In8Lzc>
- ▶ The study of information flow: A personal journey - <http://bit.ly/2KpzKKW>
- ▶ The Normalization of Deviance (If It Can Happen to NASA, It Can Happen to You) - <http://bit.ly/2Ihj1wV>

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- ▶ *Snow Crash* by Neal Stephenson - <http://bit.ly/2liuc8L>
 - ▶ The Cybersecurity Canon: *Snow Crash* - <http://bit.ly/2InDYGI>
 - ▶ Disasters! Arrested DevOps Episode 37 - <https://arresteddevops.com/37>
 - ▶ PagerDuty Incident Response - <http://response.pagerduty.com>