

# HOW TO INFECT YOUR ORGANIZATION

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# WITH HUMANE OPS



Matty Stratton  
DevOps Advocate, PagerDuty

 @mattstratton

D!







**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



**Jan Mara** @skullboxx · 4h

Replying to @mattstratton

Works in Dev!



**Emily Freeman** @editingemily · 5h

Replying to @mattstratton

A dumpster fire.



**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.





**Charity Majors**

@mipsytipsy

Follow

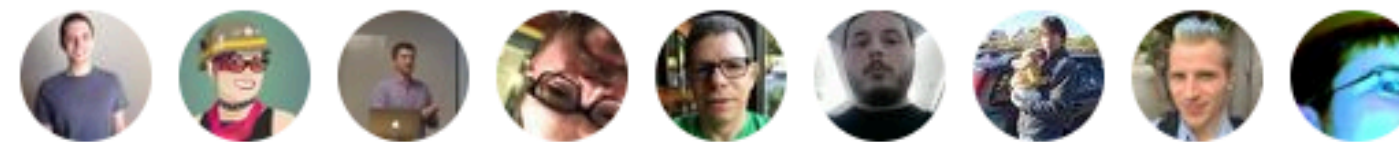


Yes, yes. On call sucks and can destroy your life. I know this. Bored now.

On call is a fact of life for anyone who cares about developing high quality software for the long run. So how can we make it \*not\* suck?

6:43 AM - 31 Jan 2018 from [City of London, London](#)

9 Retweets 25 Likes



**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”



## WHAT IF YOU ARE THE SUPREME LEADER?

- ▶ "Command and control"
- ▶ Use measurement
- ▶ Avoid "executive"



## MIDDLE MANAGEMENT TIPS

- ▶ Encourage safe post-incident review spaces
- ▶ Drive for a culture of learning
- ▶ Take care of your people



## A CULTURE OF LEARNING

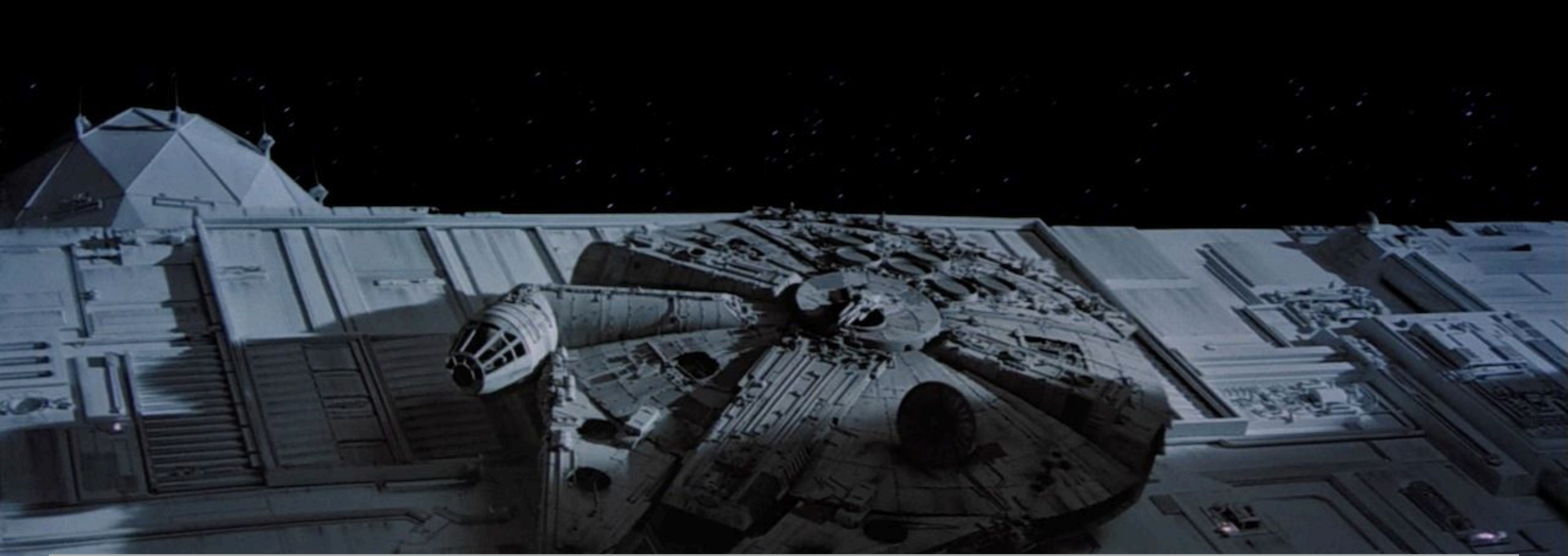
- ▶ In a generative, performance-oriented organization, “failure leads to inquiry.”
- ▶ Don't take my word for it. Ask Ron Westrum.
- ▶ You can also ask Dr. Nicole Forsgren - @nicolefv

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



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



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# REVIEW ALL THE THINGS

## THE ON-CALL REVIEW

- ▶ Primary purpose is to understand on-call load and pain
- ▶ Approximately a week's worth of on-call history is common
- ▶ Take about 30 minutes, give or take

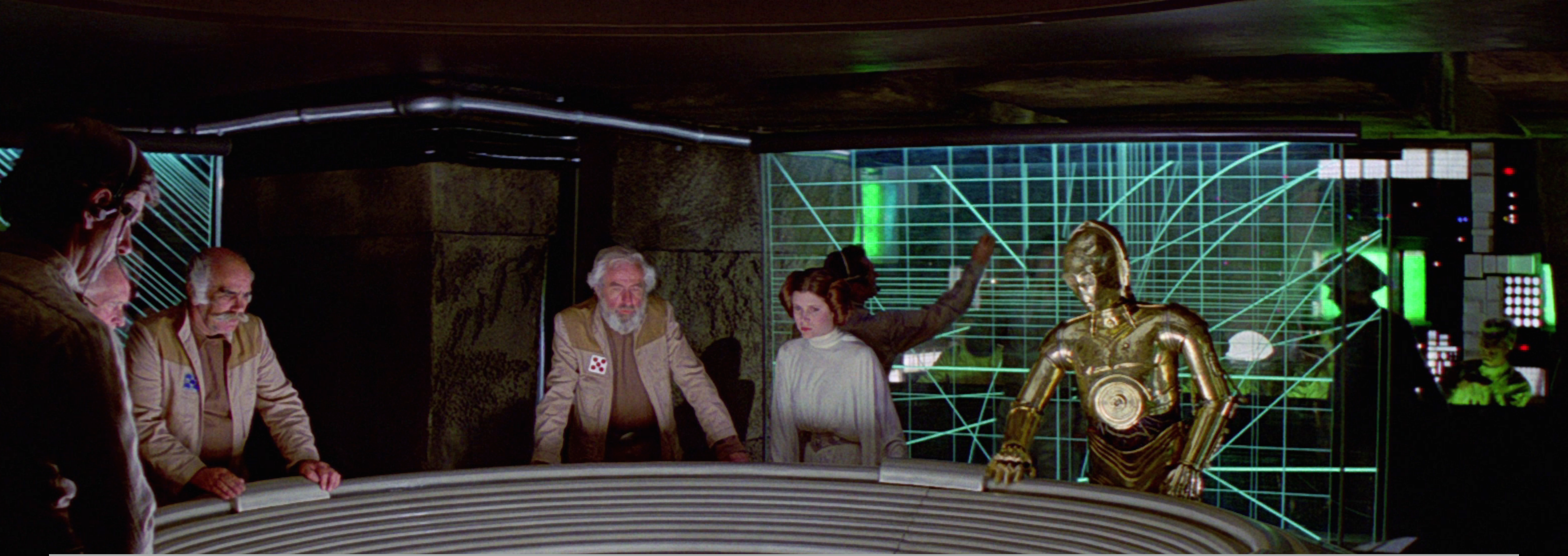


- ▶ Typically instituted by a team manager
- ▶ Usually run by on-call responders
- ▶ Minimum attendees are the team manager, outgoing on-call, and incoming on-call
- ▶ BETTER PRACTICE - include the entire team!

## 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.

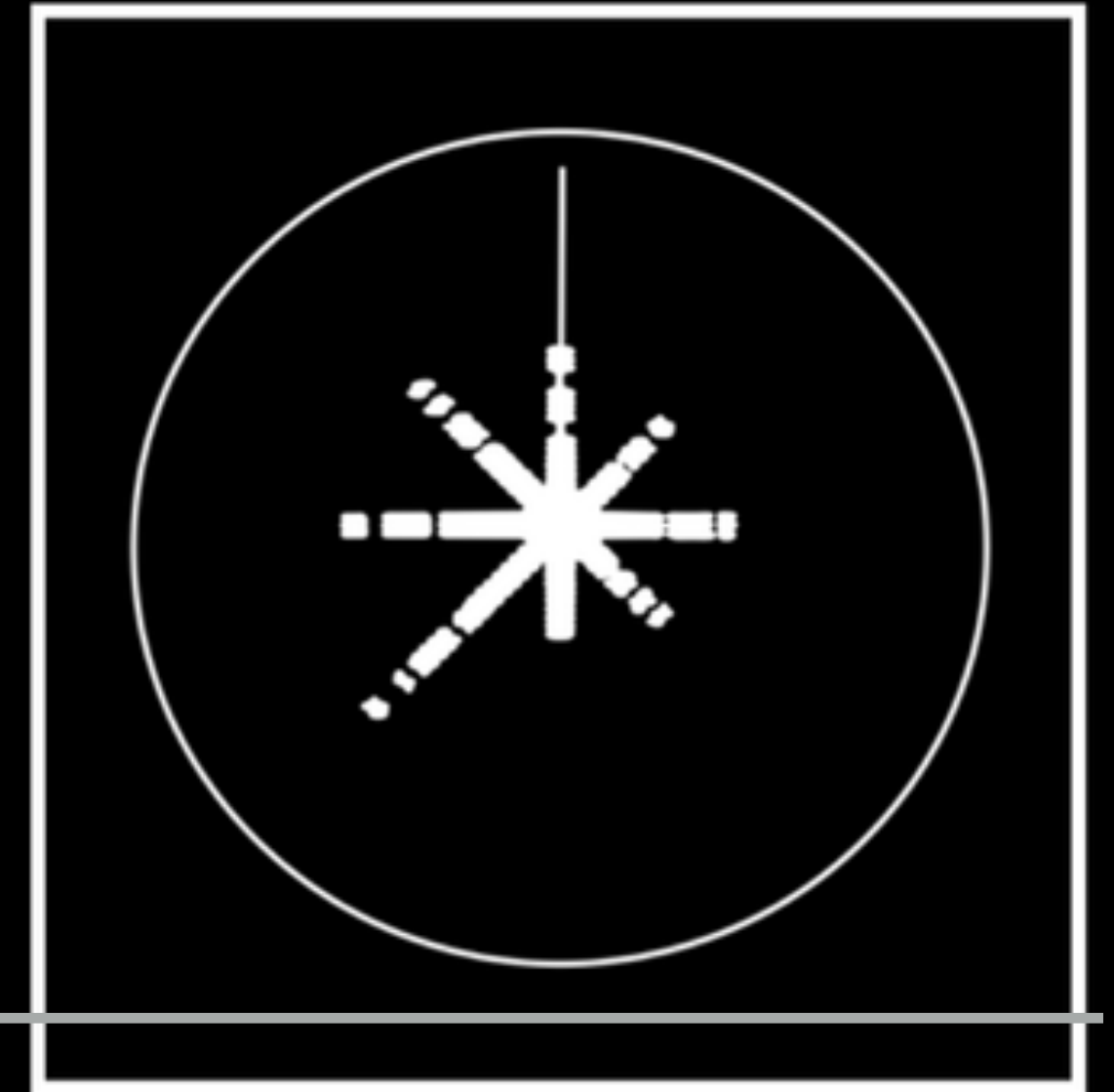
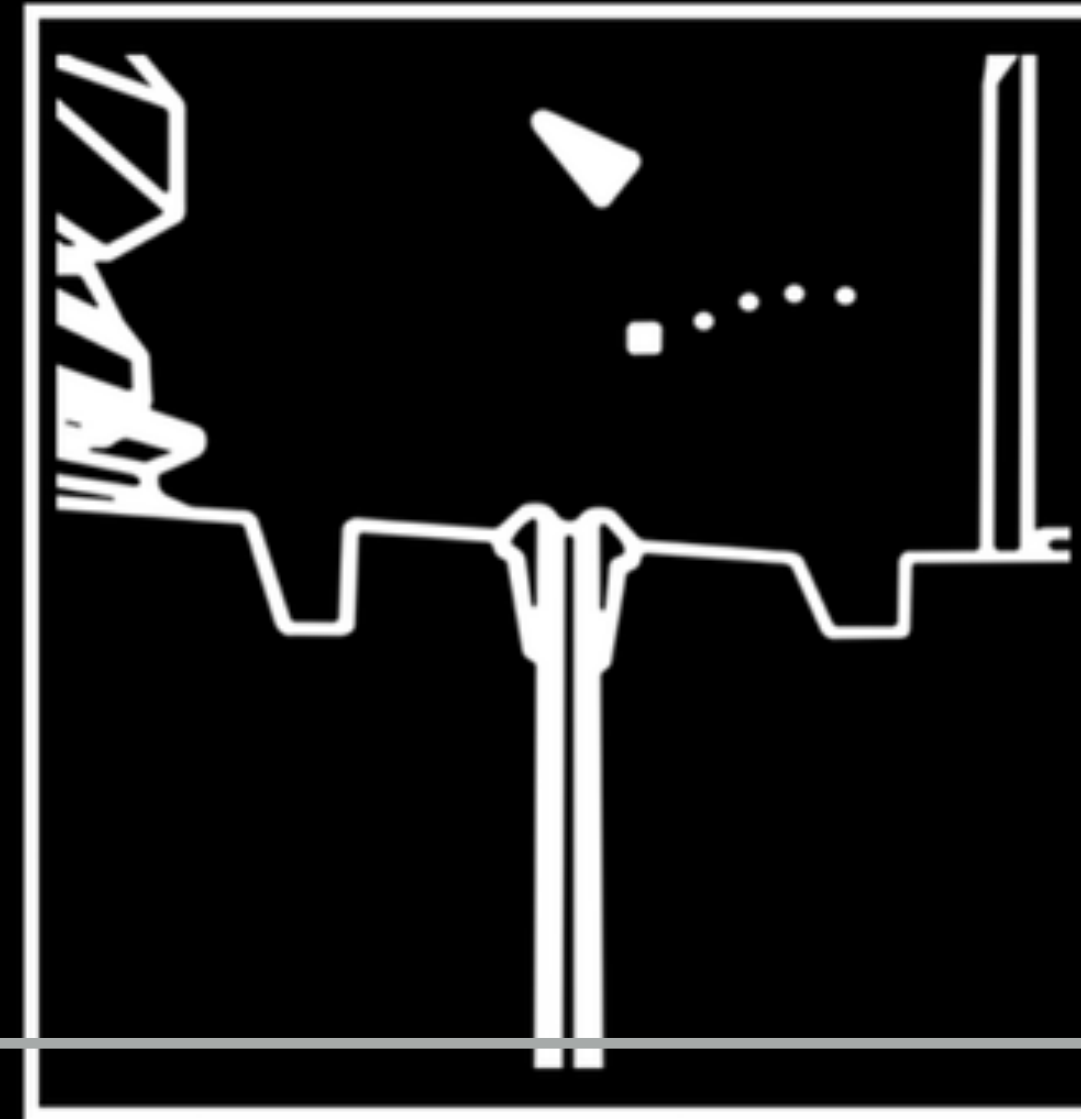
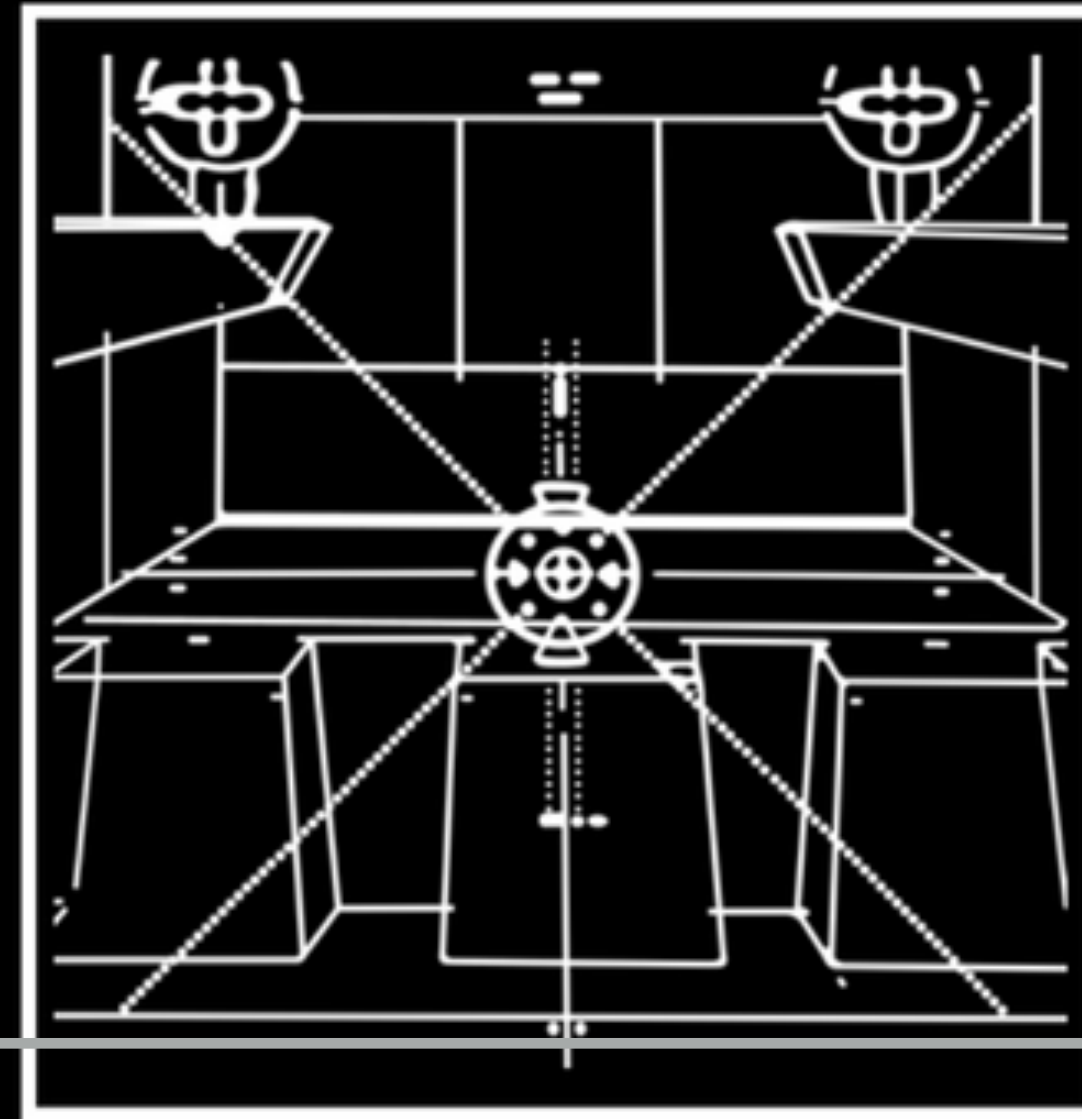
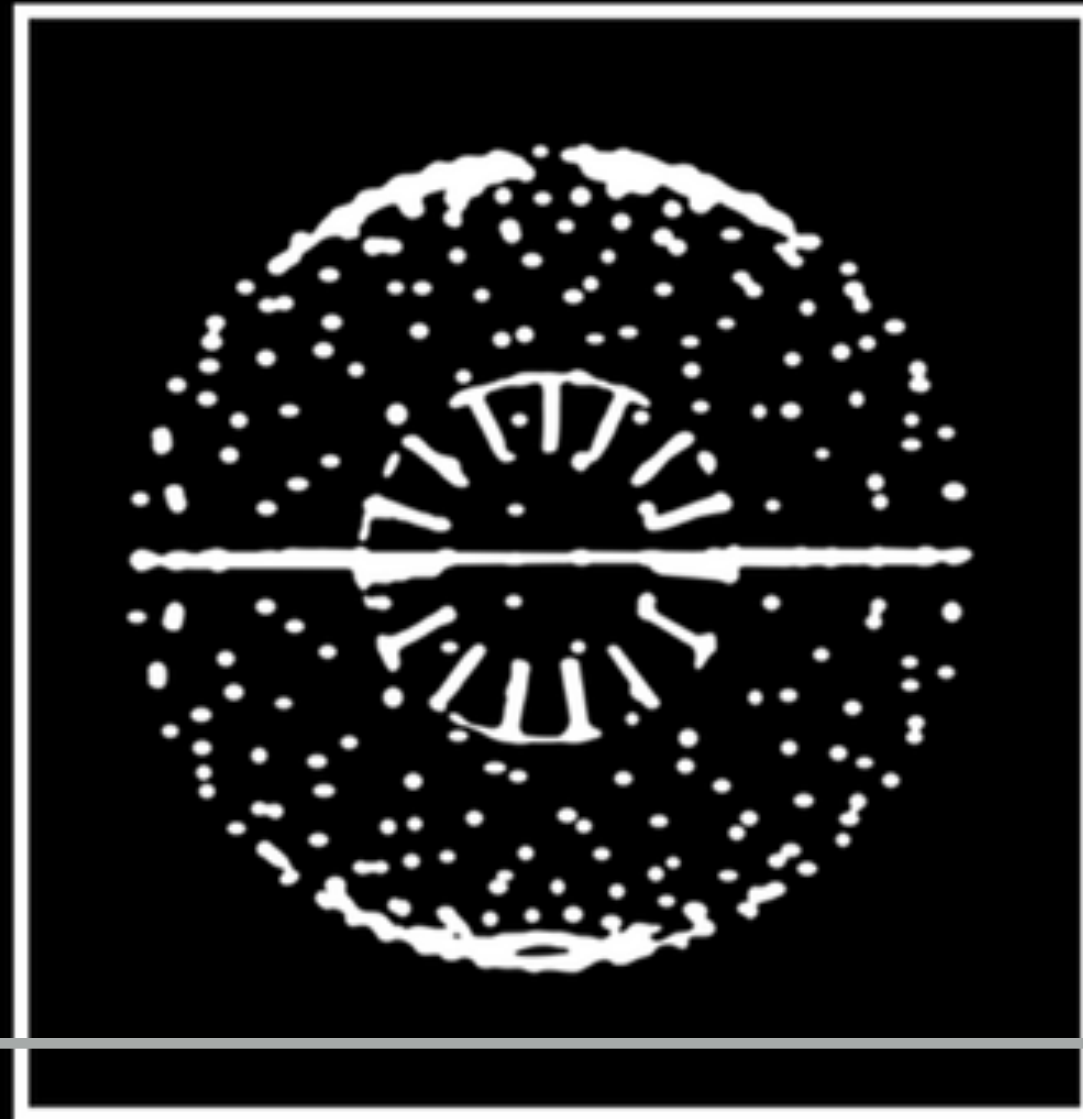
<http://bit.ly/2lhj1wV>



# 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 NEGATIVE BUSINESS IMPACT**

**Stratton's Law of Catastrophic Predestination**

## 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



## CookieOps

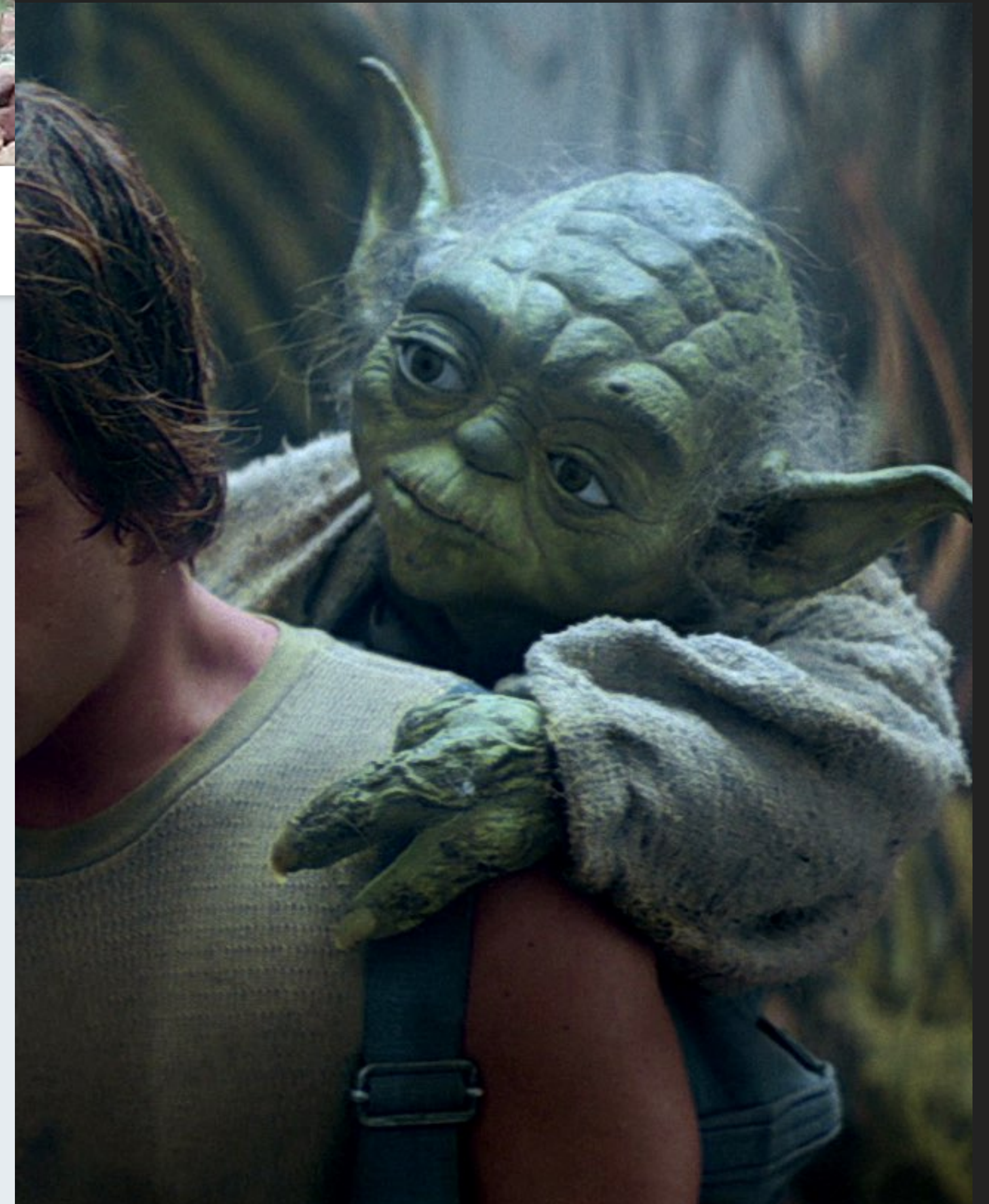
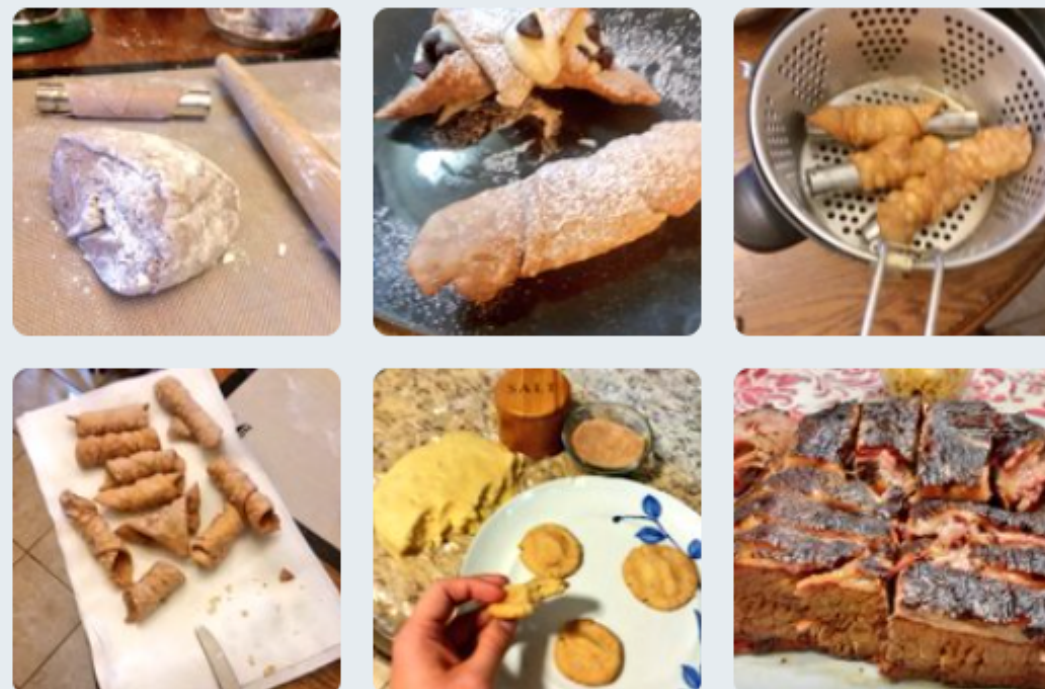
@cookieopsdotcom

#DevOps Makes More Sense with Cookies.

[cookieOps.com](https://cookieops.com)

Joined September 2014

32 Photos and videos





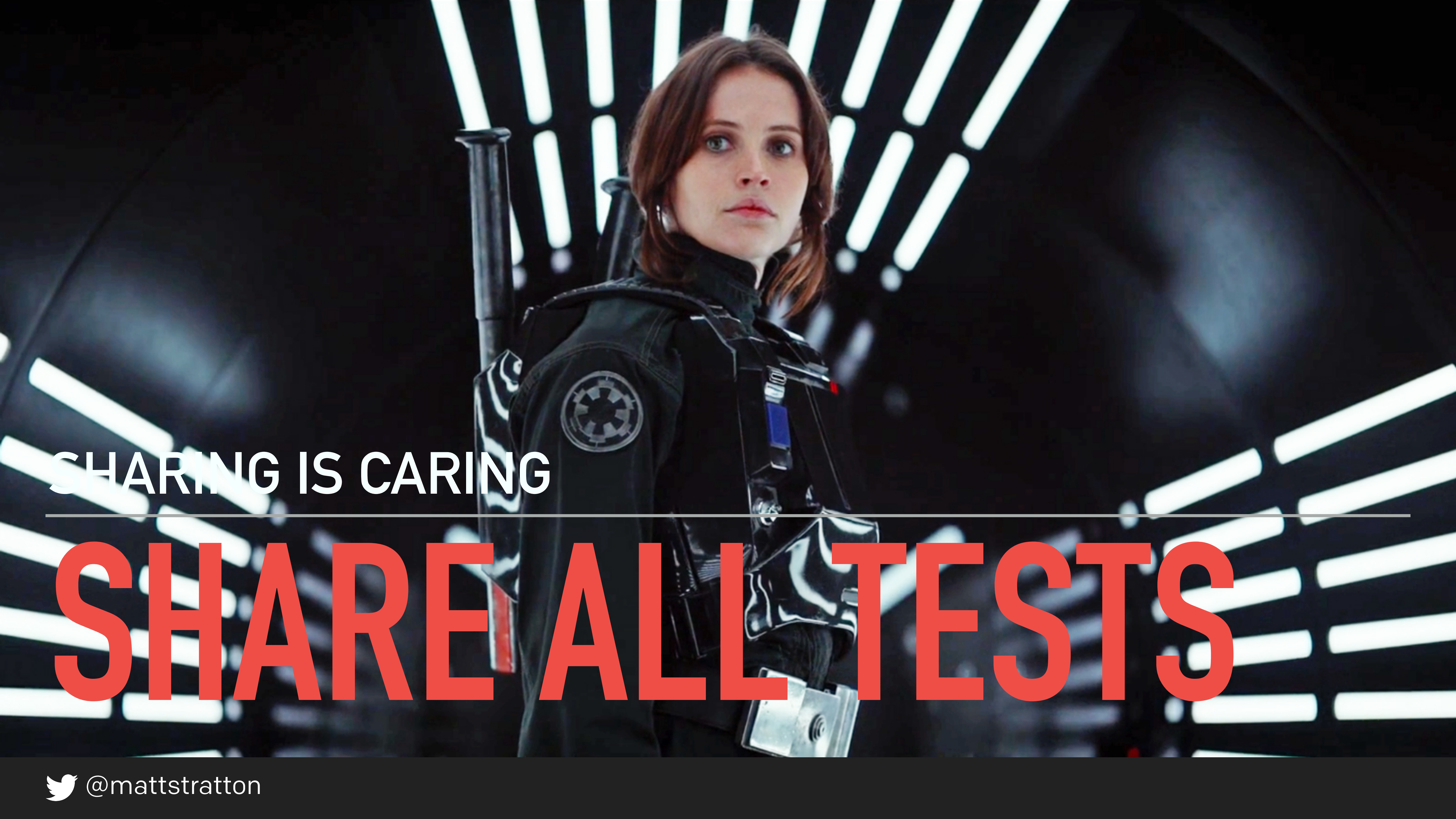
A man with a mustache, wearing a military uniform, is shown in a control room. He is looking slightly to the right with a slight smile. The background is filled with various pieces of equipment and other people working at consoles.

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

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**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 a time dimension. **There should be full parity between preproduction and production.**



EVERY SPRINT

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DO ONE NICE THING

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## 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  
MATTSTRATTON.COM  
ARRESTEDDEVOPS.COM

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

 @mattstratton

**SPEAKING.MATTSTRATTON.COM**

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## 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 - <https://response.pagerduty.com>
  - ▶ Operational Reviews - <https://reviews.pagerduty.com>