

Findings From The Field

Two Years of Studying Incidents Closely

**DevOps Enterprise Summit 2020
Las Vegas Edition**

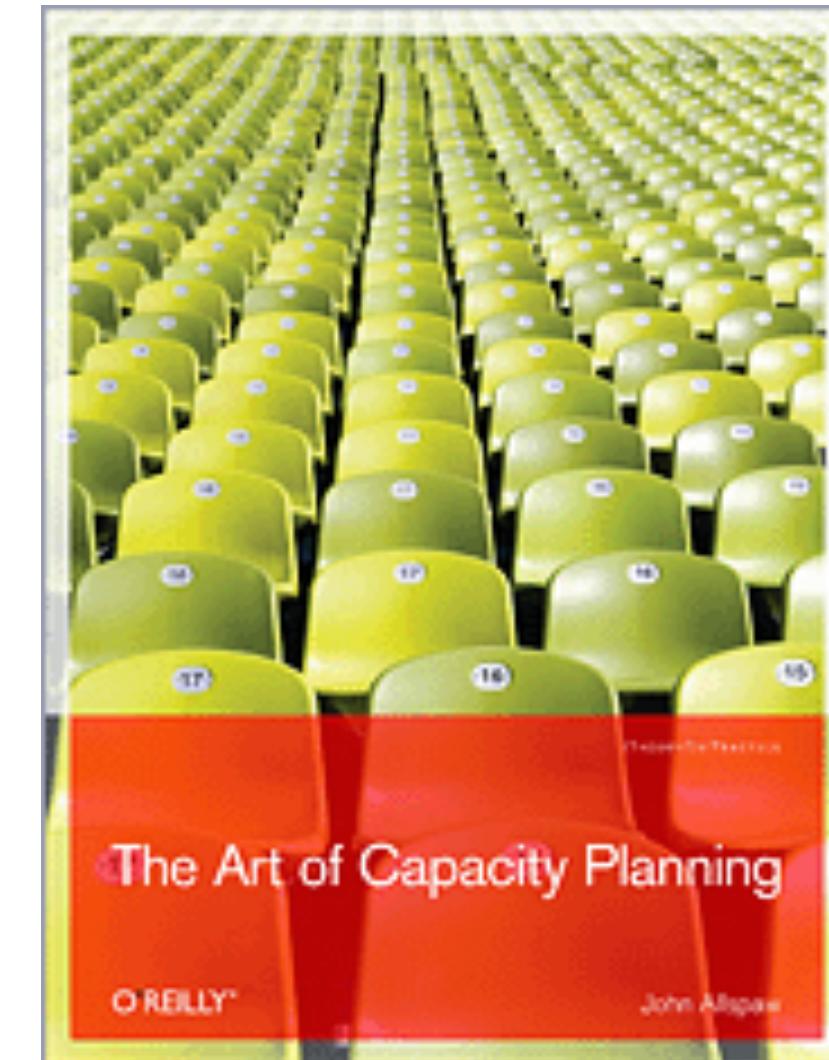
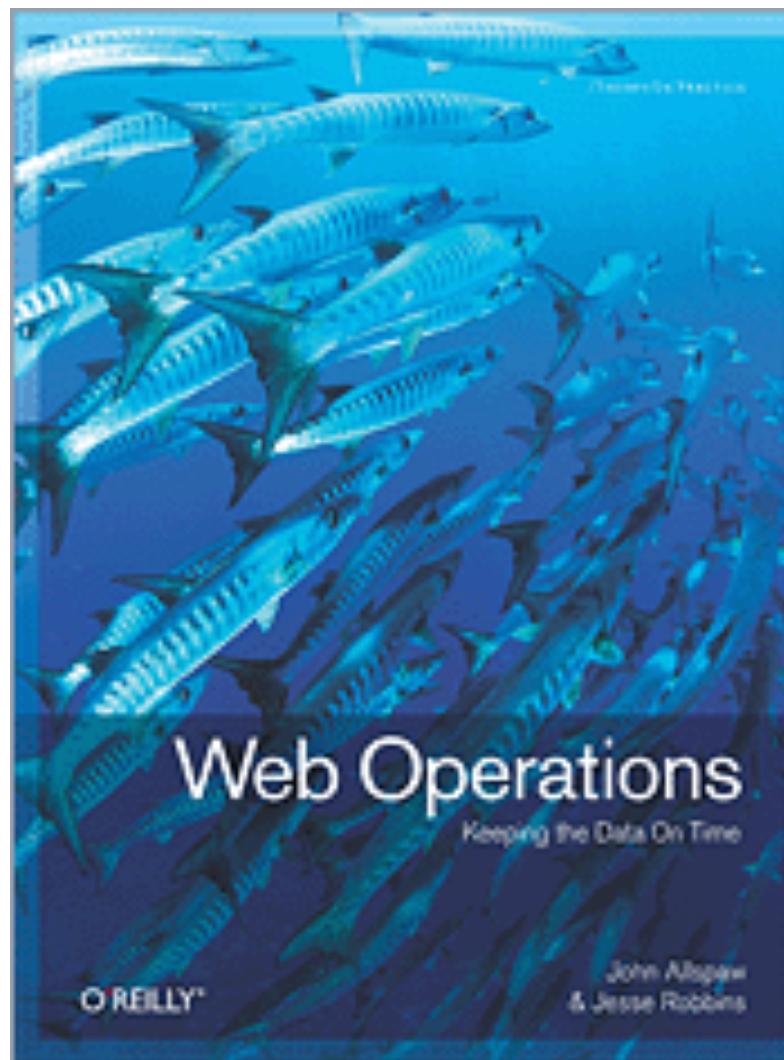
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Consortium for Resilient
Internet-Facing Business IT

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disclosure

1. these are only a **few** of the most common patterns
2. these are not judgements/comments on **any single organization**

Bottom Line, Up Front: what we've observed across the industry

1. The state of maturity in the industry on *learning from incidents* is **low**.
2. Significant gaps exist between **technology leaders** ↔ **hands-on practitioners** on what it means to *learn from incidents*.
3. Learning from incidents is given **low** priority, resulting in a narrow focus on *fixing*.
4. Overconfidence in what *shallow* incident metrics mean and significant energy wasted on tabulating them.

Technology Leaders ↔ Hands-on Practitioners

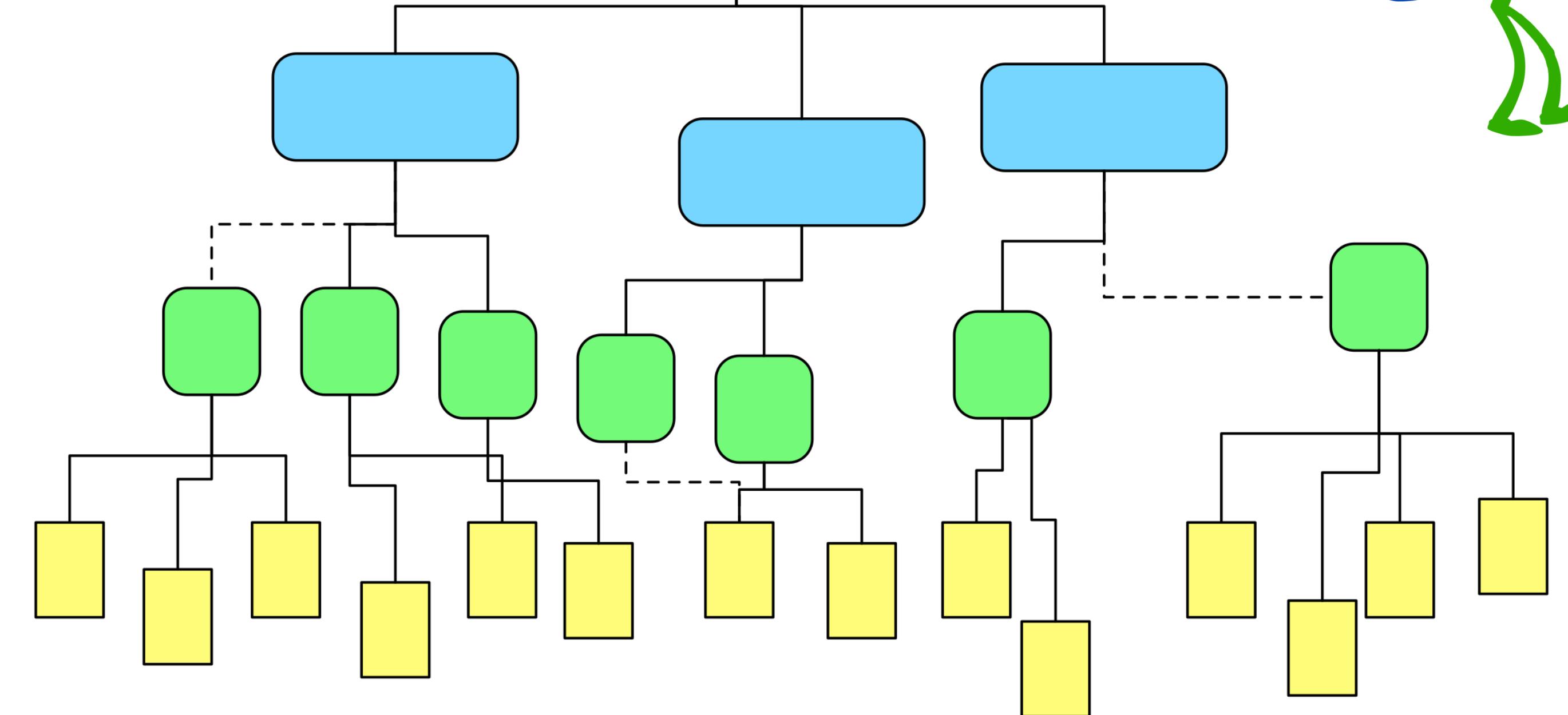


a gap exists here

- **what** is actually learned
- **how** learning actually takes place
- **what** the incident actually means *(for the past, for now, and for the future)*

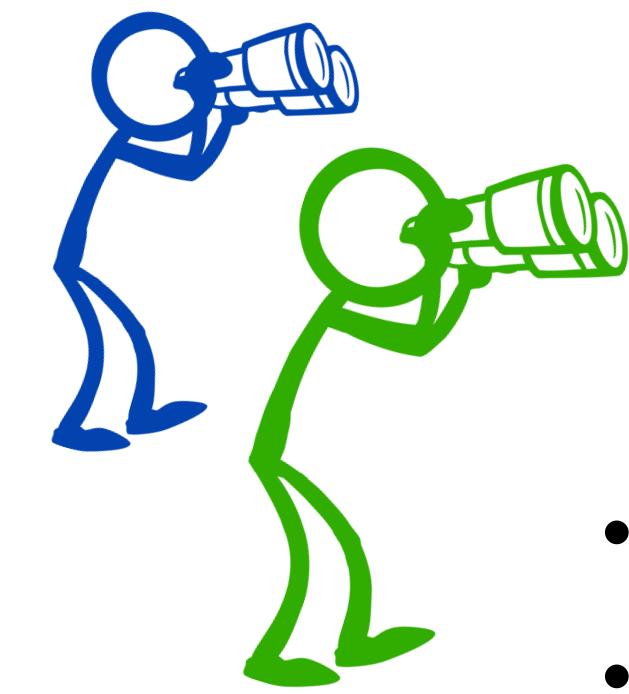
“Blunt” End

Technology Leaders

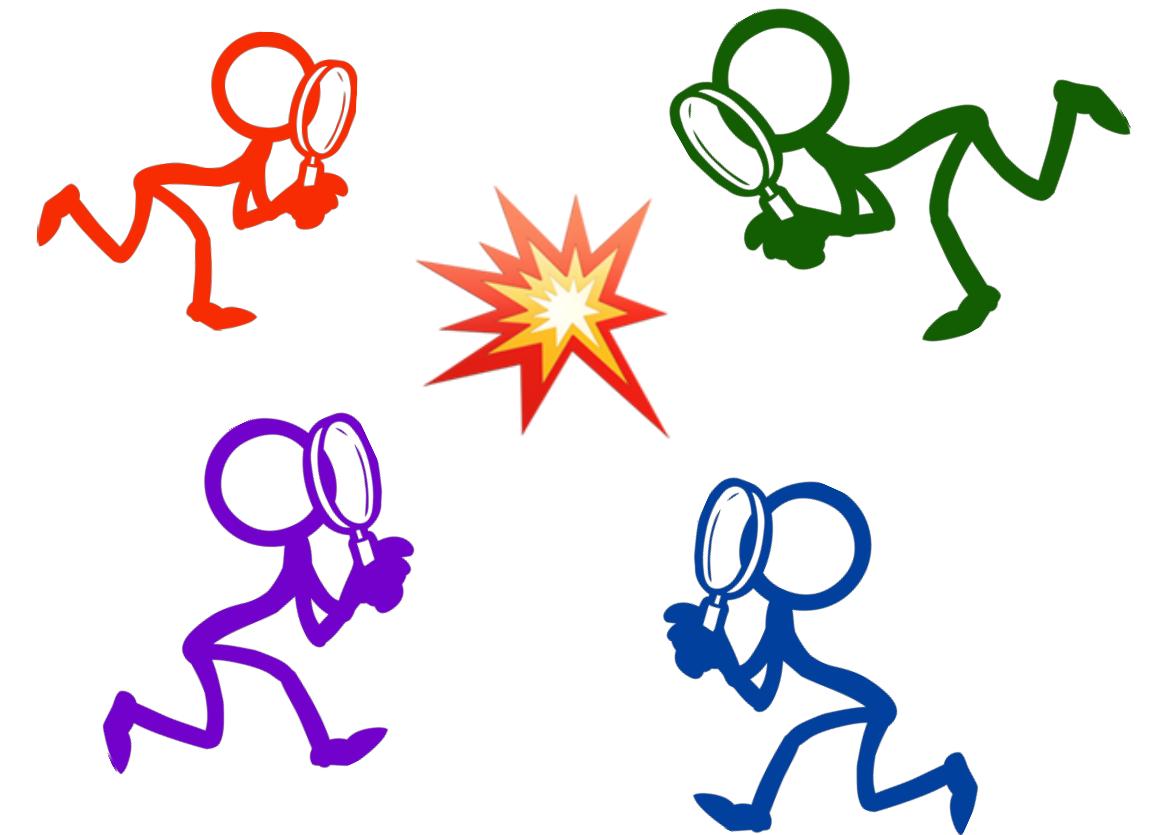
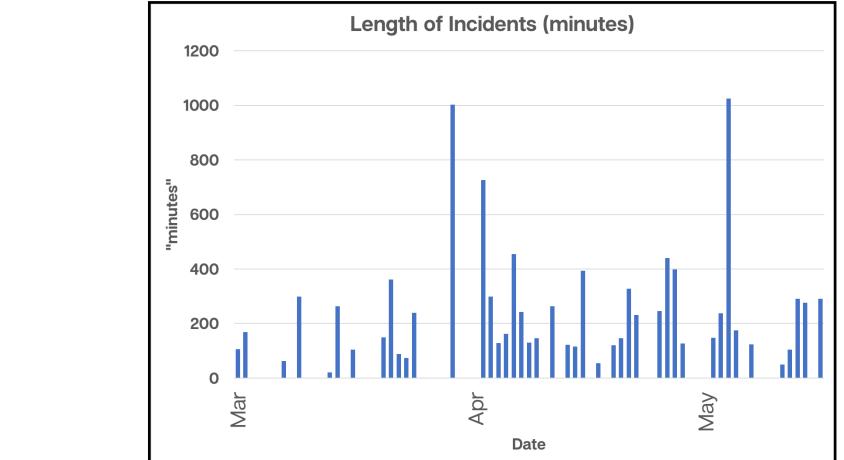


“Sharp” End

Hands-on Practitioners



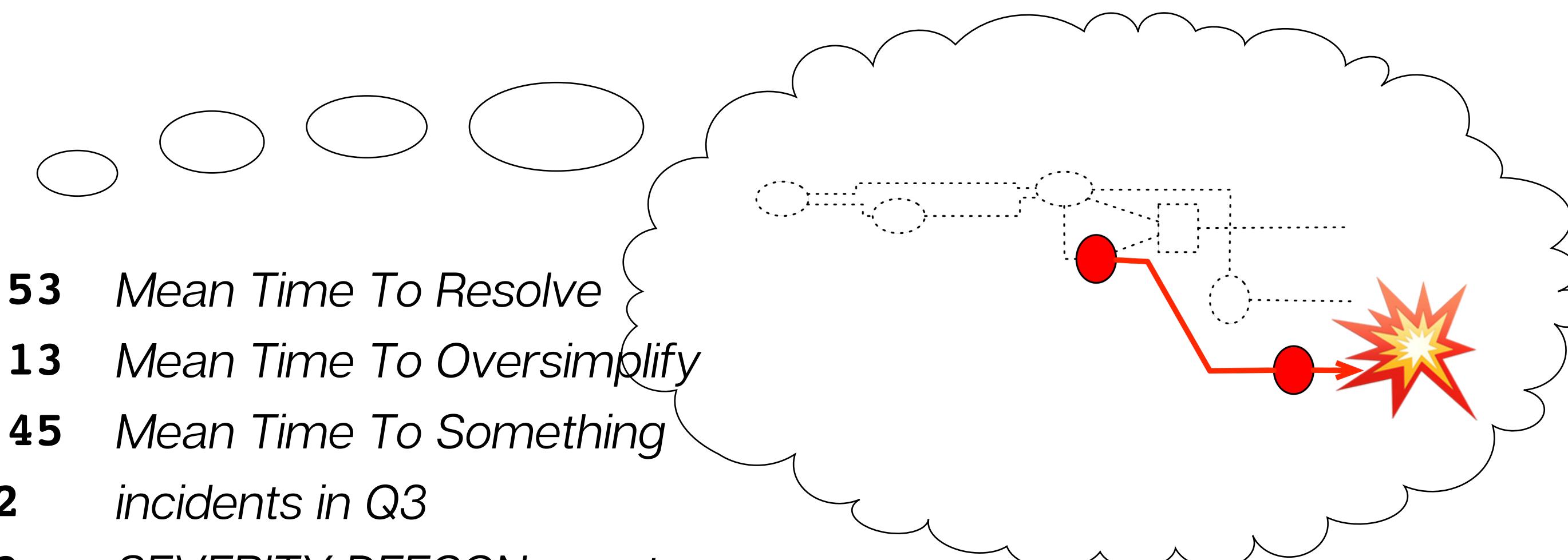
- summaries
- simplifications
- abstractions
- statistics



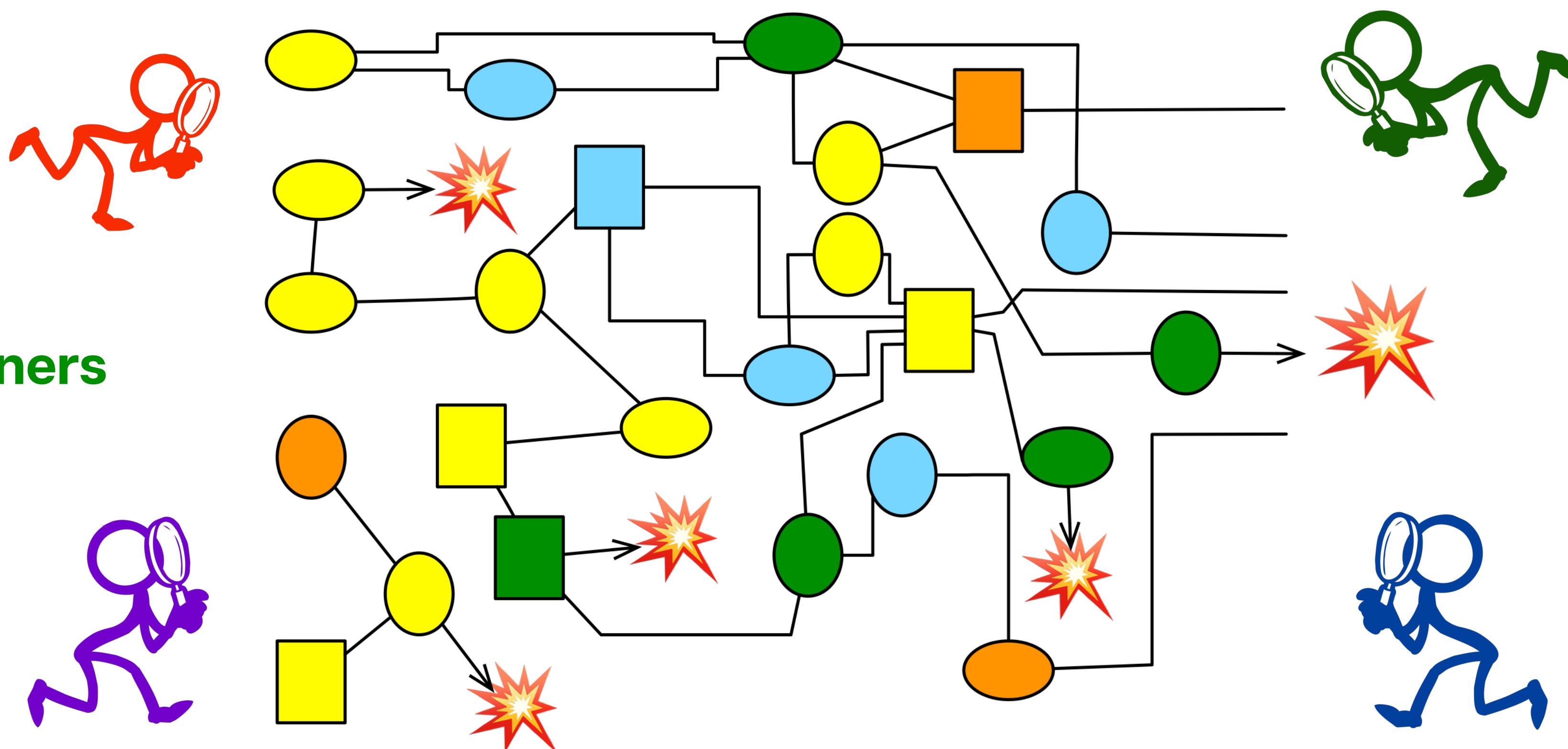
Technology Leaders



- 24.53** Mean Time To Resolve
- 32.13** Mean Time To Oversimplify
- 14.45** Mean Time To Something
- 22** incidents in Q3
- 12** SEVERITY DEFCON events



Hands-on Practitioners



Technology Leaders

- typically are far away from the “messy details” of incidents
- frequently believe their presence and participation in incident response channels (chat, bridges, etc.) has a positive influence (it doesn’t)
- typically believe incidents are adverse events in an otherwise “quiet” and healthy reality (they’re not)
- typically fear how incidents reflect poorly on *their performance* more than they fear practitioners not learning effectively from them

Technology Leaders

- typically believe abstract incident metrics tell enough of a story for them to understand the state of the “system” (they don’t)
- typically believe abstract incident metrics reflect more about their teams’ performance than it reflects the complexity those teams have to cope with
- typically believe the above observations don’t apply to them 😊

shallow metrics

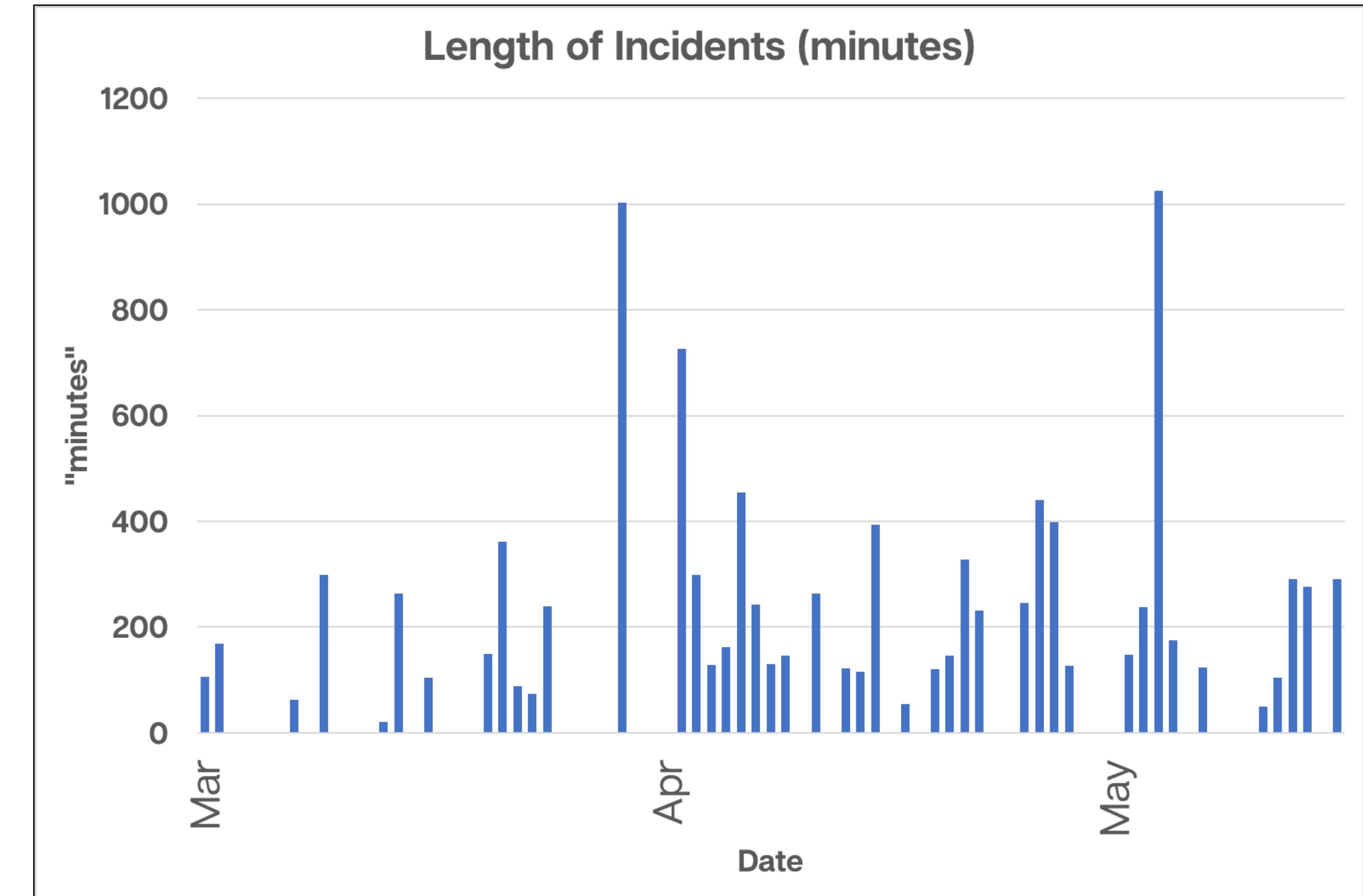
(M)TTR/(M)TTD

Frequency

Severity

Customer impact

...



*no predictive value forward
no explanatory value backward*

“but they help us ask deeper questions”



Technology Leaders

How can you tell the difference between...

A difficult case
handled well.

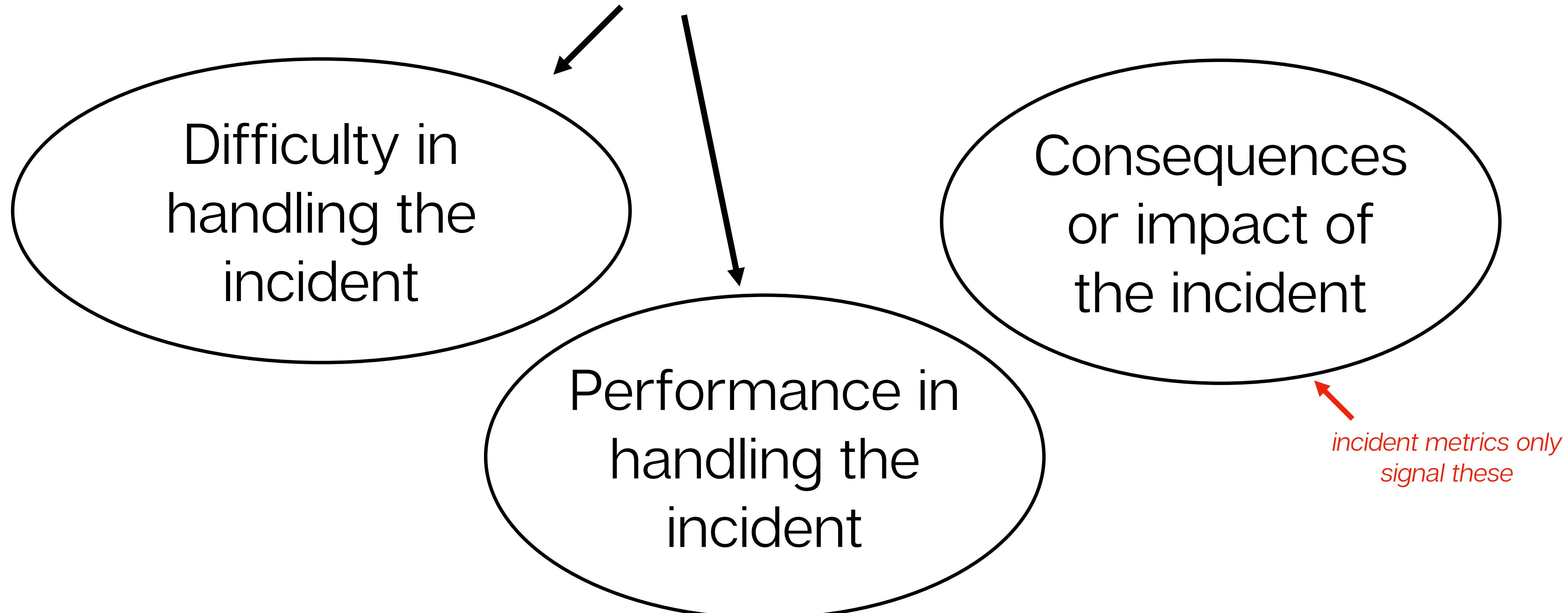


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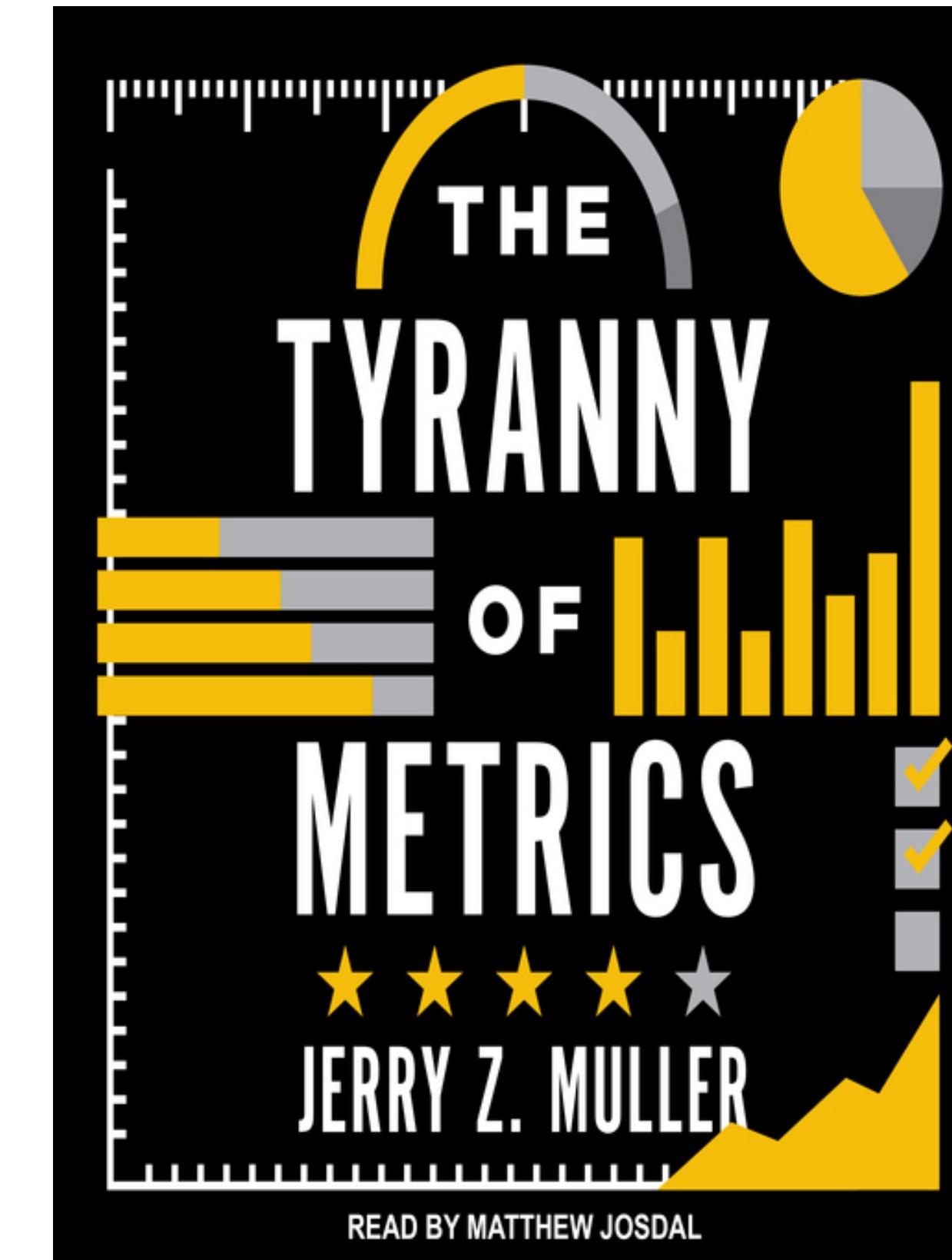
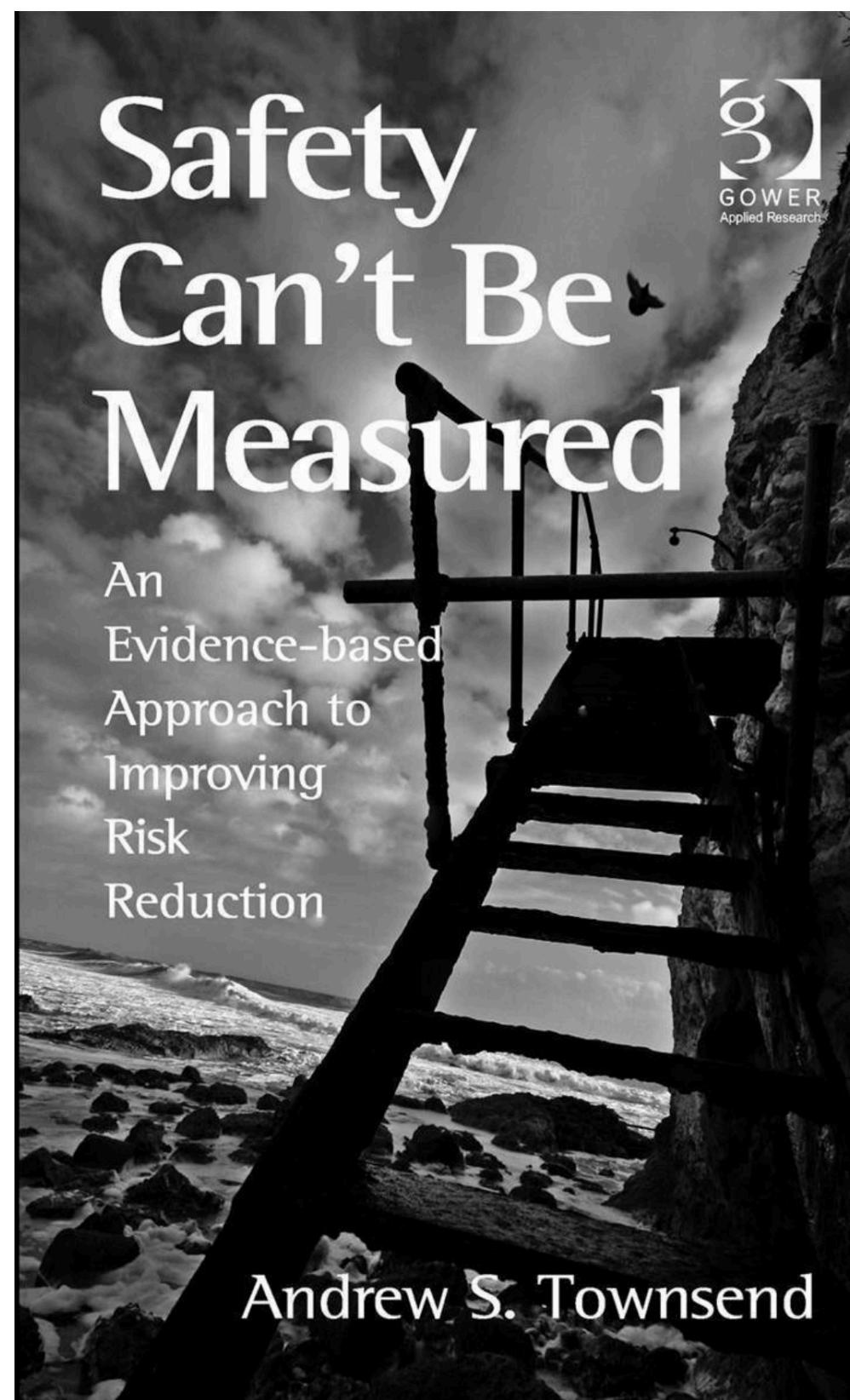
A straightforward
case handled
poorly.

Technology Leaders

without these, you cannot understand what incidents mean in context



incident metrics do not do what you think they do



More on this topic:
<https://bit.ly/beyond-shallow-data>

Hands-on Practitioners

- typically view post-incident activities to be a “check-the-box” chore
- typically believe in a future world where automation will make incidents disappear
- typically do not capture what makes an incident *difficult*, only what technical solution there was for it.
- typically do not capture the post-incident writeup for readers beyond their local team

Hands-on Practitioners

- typically do not read post-incident review write-ups from other teams
- typically fear what leadership thinks of incident metrics **more** than they fear misunderstanding the origins and sources of the incident
- typically has to exercise significant restraint from immediately jumping to “fixes” before understanding an incident beyond a surface level
- typically believe the above observations don’t apply to them 😊



*Learning is not the
same as fixing.*

More about this here:
<https://bit.ly/learning-not-fixing>

Ok! We get it!
What are *solutions*, wiseguy?

Technology Leaders

Learning from incidents effectively requires skill and expertise that most do not have

**These are skills that can be learned and improved.
Prioritize it when things are going well.
It will accelerate the expertise in your org.**

More on this:

<https://www.learningfromincidents.io/>

Technology Leaders

Focus less on incident metrics and more on signals that people are learning

- analytics on *how often* incident write-up are being *read*
- analytics on *who* is reading the write-ups
- analytics on where incident write-ups are being *linked from*
- support group incident review meetings being *optional*, and *track attendance*
- track which write-ups that link to prior relevant incident write-ups

More about this here:

<https://bit.ly/learning-markers>

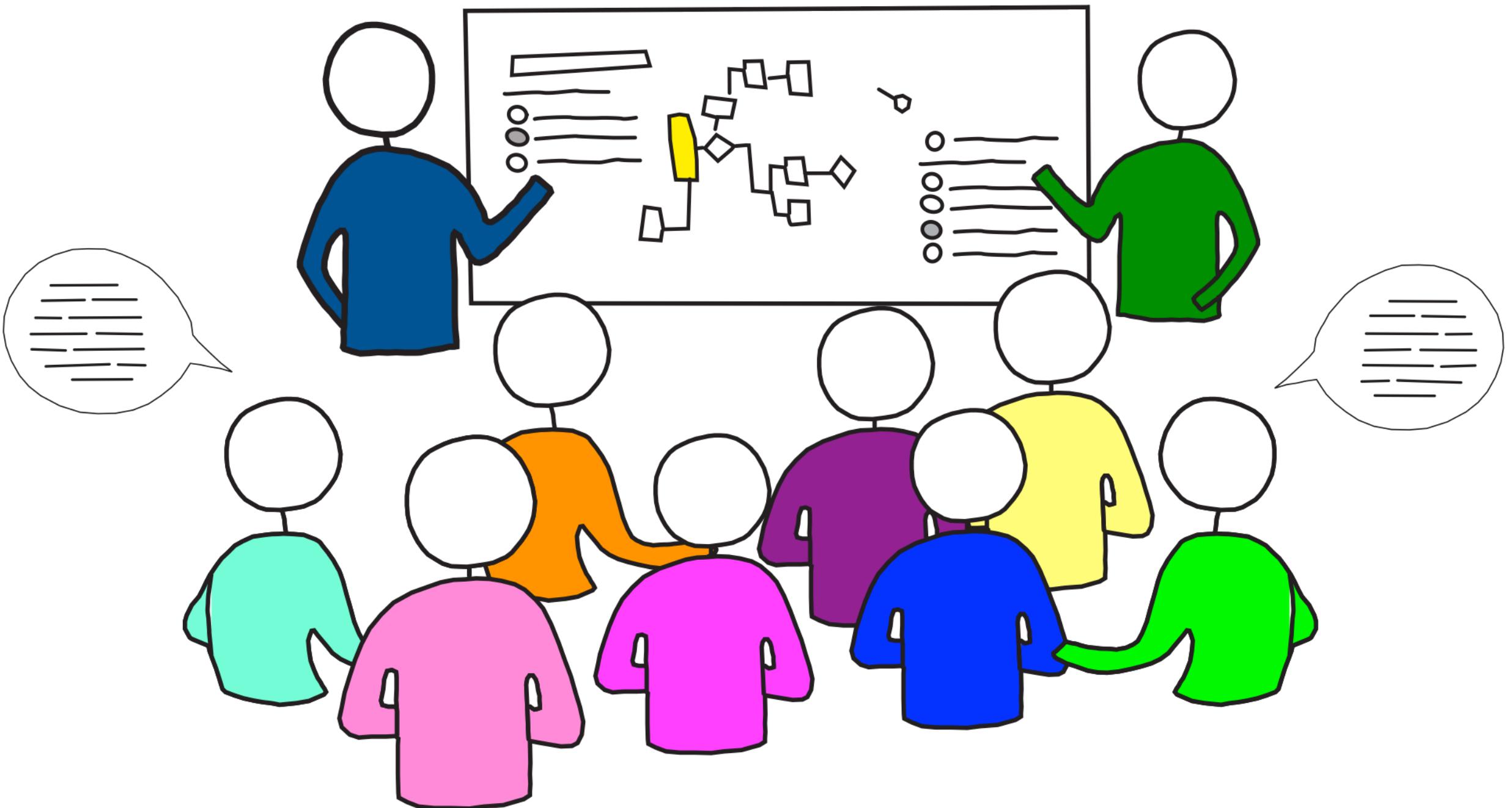
Practitioners

Don't place *all* the burden on a group review meeting!

Use this meeting to present and discuss analysis ***that has already been done.***

**Too many potential pitfalls to bet everything
on a single meeting...**

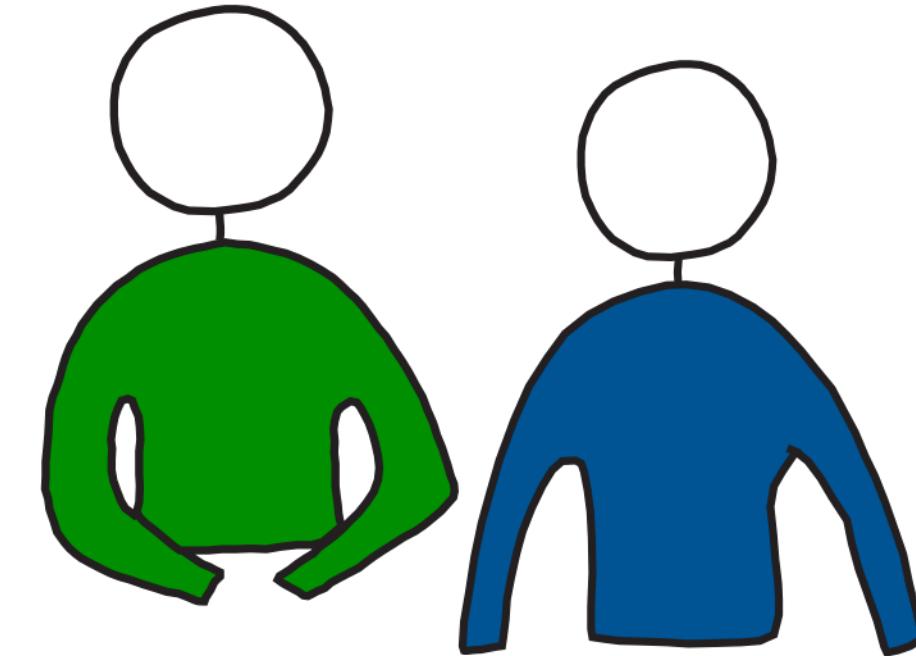
- HiPPO (“highest paid person's opinion”)
- Groupthink
- Tangents
- Redirections
- Elephants in the room
- “Down in the weeds”



this is an important meeting – prepare for it like it's expensive – because it is!

Practitioners

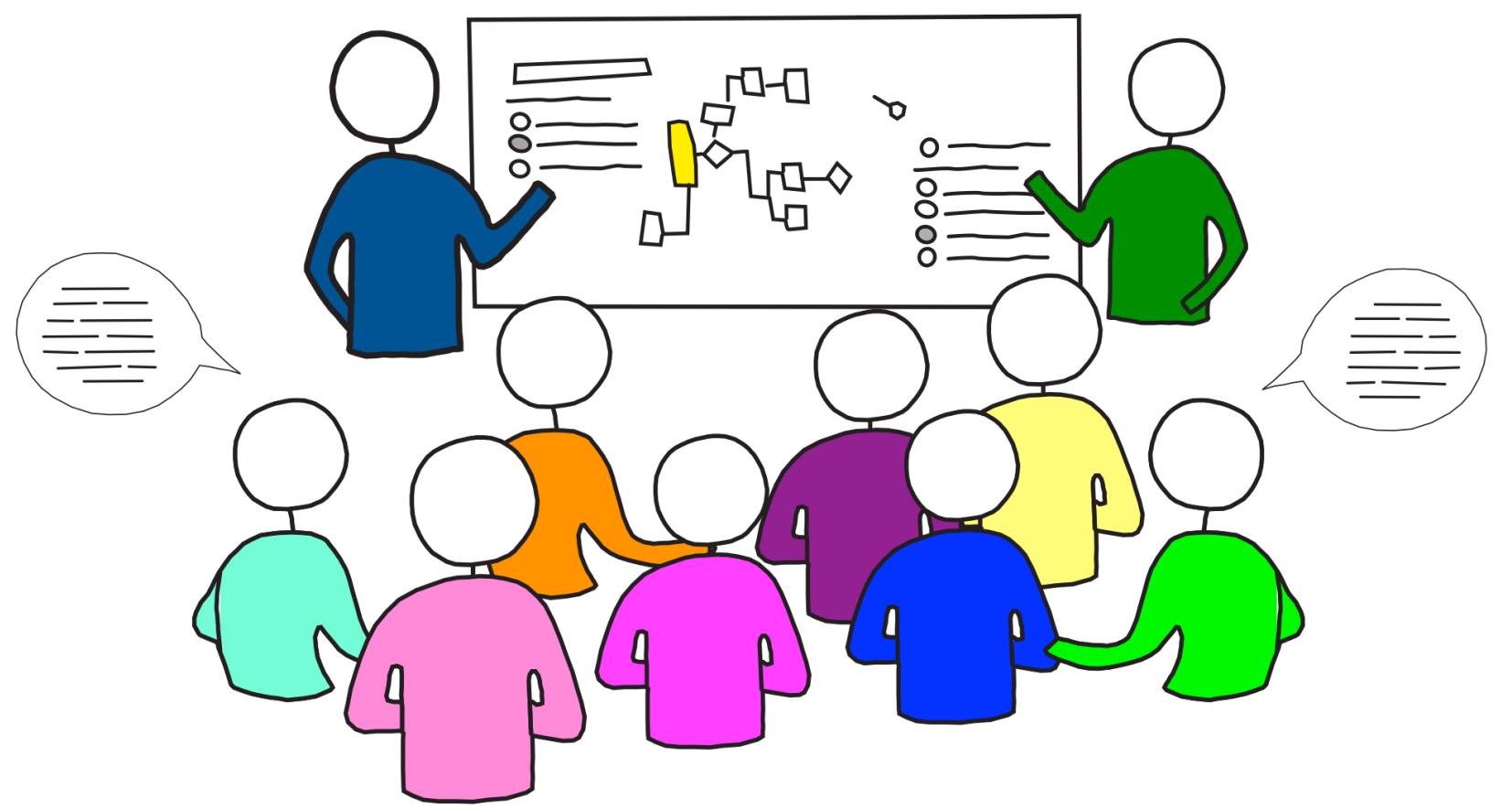
Incident analysts should *NOT* be stakeholders



- Your role is **not** to tell the One True Story™ of what happened.
- Your role is **not** to dictate or suggest what to do.
- Maintaining a *non-stakeholder stance* signals to others that you have no agenda other than understanding *how they understood* the event
- *Half of your job* is to get people to genuinely look forward to and participate in the next incident analysis.

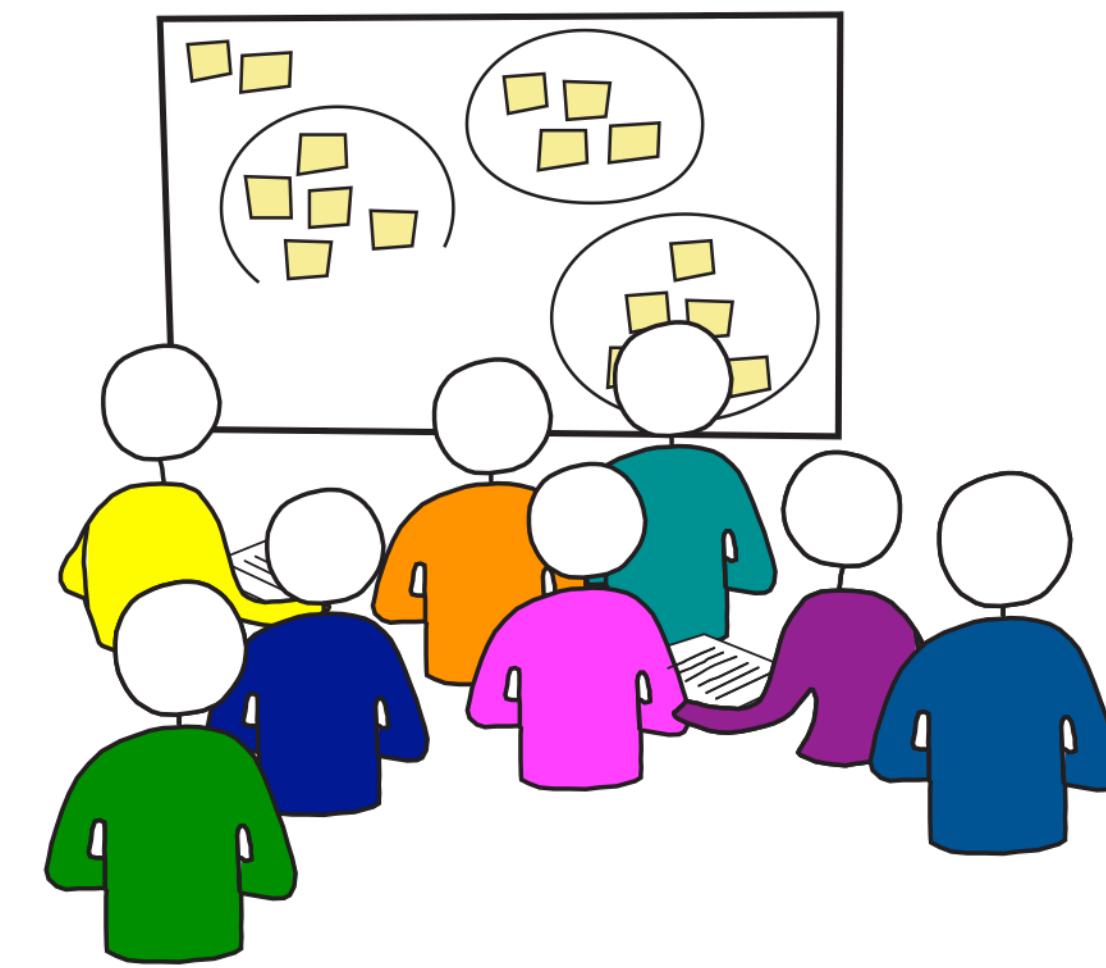
Practitioners

Separate generating action items from the group review meeting



Group Review Meeting

“soak time”



Action Items Generation

ACL Challenge

Technology Leaders

Start tracking how often post-incident write-ups are **voluntarily read** by people *outside of the team(s) closest to the incident*.

Start tracking how often incident review meetings are **voluntarily attended** by people *outside of the team(s) closest to the incident*.

Practitioners

For every incident that has a “red herring” episode...capture the red herring part of the story **in detail** in the write-up, especially on what made following the “rabbit hole” seem reasonable at the time.

Help I'm Looking For

Thank You!