Get Your Non-SREs Oncall Ready!

Create confident oncallers

Google

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Hello
my name is

JC van Winkel

Google Switzerland

- 14 years at Google

- Lead Educator SRE EDU

- Was oncall for production monitoring at Google for 6 years

- 30+ years experience in teaching

Google

Hello

my name is

Brad Lipinski

Google Switzerland

- 11 years at Google
- Several service teams for 6 years
- SRE EDU 5 years, Tech Lead

Google

SRE EDU Onboarding

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  - hands on

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- Real production system: a simple photo service which we can break.
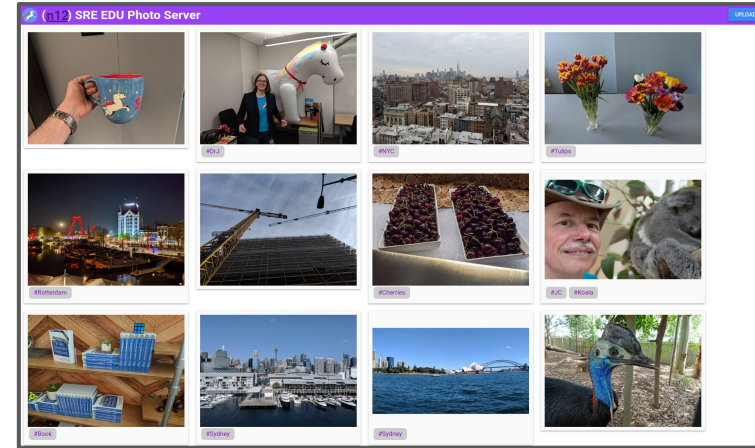
SRE production training

- SRE Orientation is …
  - expensive to run
  - ~infrequently run
  - run in a few time zones

- non-SREs wanted to attend SRE EDU orientation, but a whole week?

- How can we make this work for non SREs?

Image by Gemini

Non SRE production training

- non-SRE Engineering is at least 10X SREs

- What is the crown jewel of SRE orientation? photo service + breakages
  - 3 students get ownership of one instance, we break it, they fix it

- **How do we scale?**
  - Let the learners run everything

Oncall Ready Drills!

https://it.m.wikipedia.org/wiki/File:The_Thundering_Herd_-_1925_Lobby_Card.jpg public domain

Oncall Ready Drills ?

Give non-SREs in engineering experience in investigating and mitigating an outage

- Safe: our dedicated (educational) service

- Same breakage exercises as SRE EDU Orientation

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- No teacher but a student as the TA

KEEP CALM AND GET ONCALL READY

How to get there, technically?

- Capacity
  - We have spare capacity

- Self-service:
  - reservations
  - orchestration

Reservation Service, Orchestration

- Reservation Service:
  - Students pick a time slot
  - Reserves the instance(s)
  - Creates calendar entries
  - Sends instructions

- Orchestration:
  - Grants permissions
  - Initiates lifecycle steps (prep, page release, shutdown, cleanup)
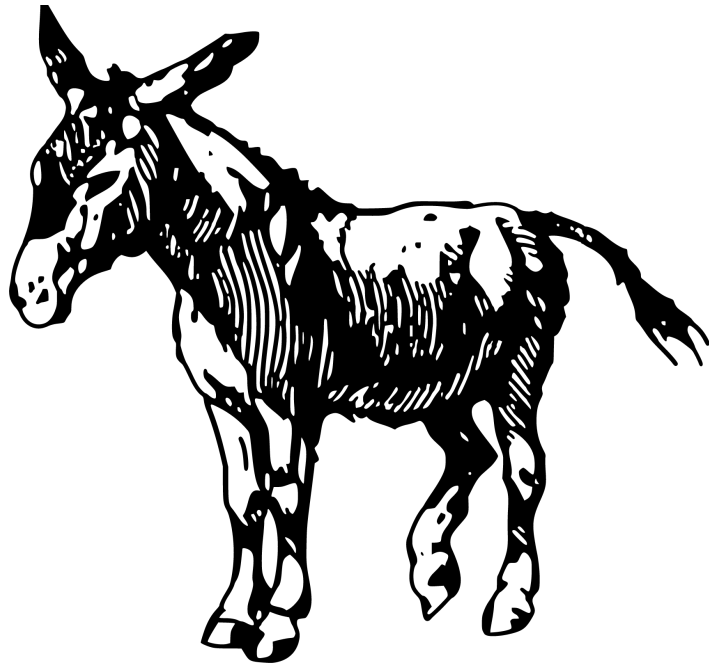 - Monitoring alerts if things *aren't* broken

Preparing the learners
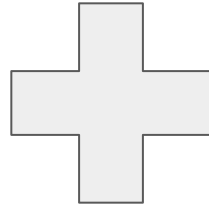
Students may not have lots of experience

- We need to give students background info

- In orientation that is 3h30 worth of classes...

- How to get from 3h30 of preparation classes to something that is concise?

- ASSBATs!
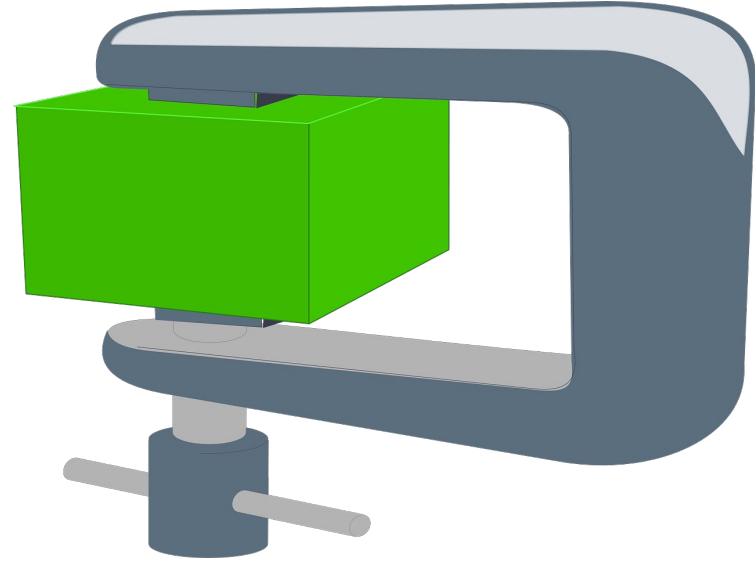
ASSBATs?

ASSBAT

+

Assbat: "**A S**tudent **S**hould **B**e **A**ble **T**o"

Our ASSBATs

- Do an analysis of the happy path of solving the breakage

- Strictly follow the list of steps obtained from the analysis phase

- This should automatically make you leave out anything that is not directly involved with the drill

Based on the ASSBATs, create a layout of the class, build it and record the video

ASSBAT
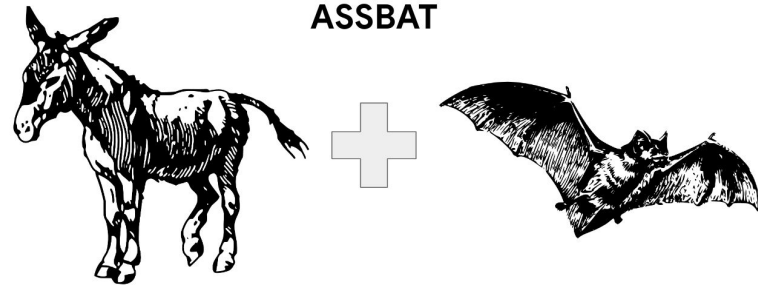
Preparing the TAs

- For each of our breakage scenarios:

  - Give the happy path to the TA

  - Record a video of an SRE going through the breakage, following the happy path

  - Give the TAs these materials

KEEP CALM AND GET ONCALL READY

Launch!

- Gradual launch and canary
  - Existing orientation program
  - Observed new sessions
  - Unobserved new sessions
  - Roll out in:
    - one location
    - a region
    - globally
  - Invite new oncallers

- Monitoring
  - The service itself (usage, problems)
  - Survey & freeform feedback

Image by Gemini
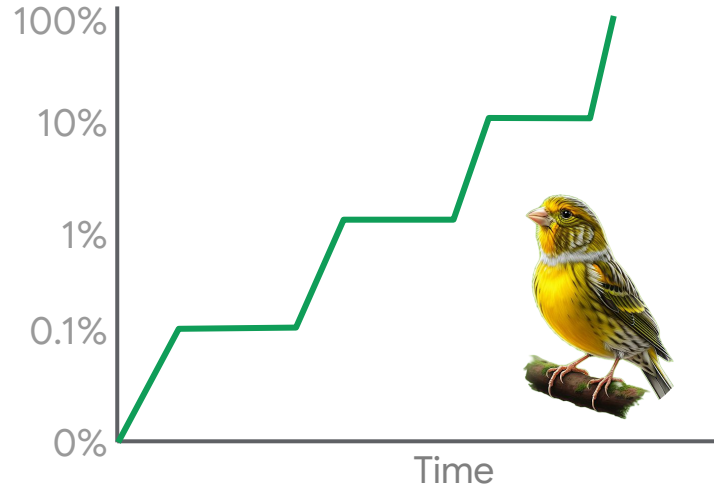
What did our monitoring tell us?

95% net promoter score (%positive - %negative)
Similar time to mitigation (where measurable)

Gemini analyzed free-text responses:

> The survey responses primarily revolve around the positive aspects of the training session:
>
> - The practical, hands-on nature of the training, allowing participants to apply their knowledge in real-life scenarios

"I have recommended the training to my teammates who are not on-call."

But...

Icon: Google data analytics logo

What did our monitoring tell us?

Students found it hard to form groups...

- We built a group matching service!

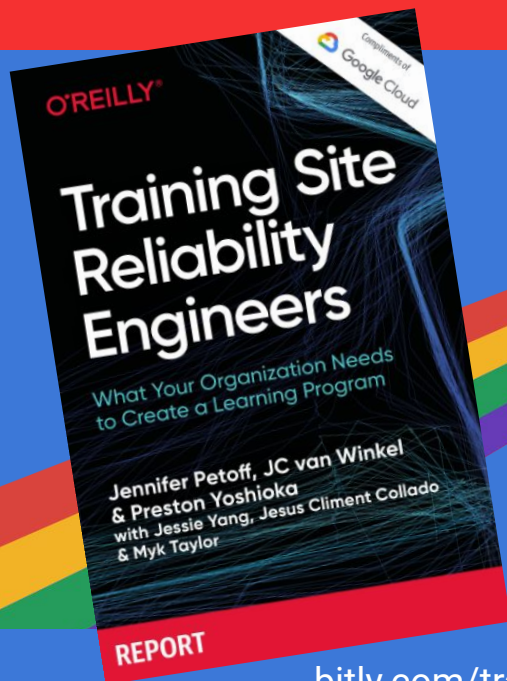- This involves matching time zones...

Conclusion

- SRE Orientation now available to the general engineering population

- People who go oncall (as non-SREs) get invited automatically

- If you build it they will come

KEEP CALM AND GET ONCALL READY

Q & A

Training Site Reliability Engineers

What Your Organization Needs to Create a Learning Program

Jennifer Petoff, JC van Winkel & Preston Yoshioka
with Jessie Yang, Jesus Climent Collado & Myk Taylor

REPORT

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