

Cognitive Apprenticeship in Action

Paige Cruz



chronosphere

Agenda

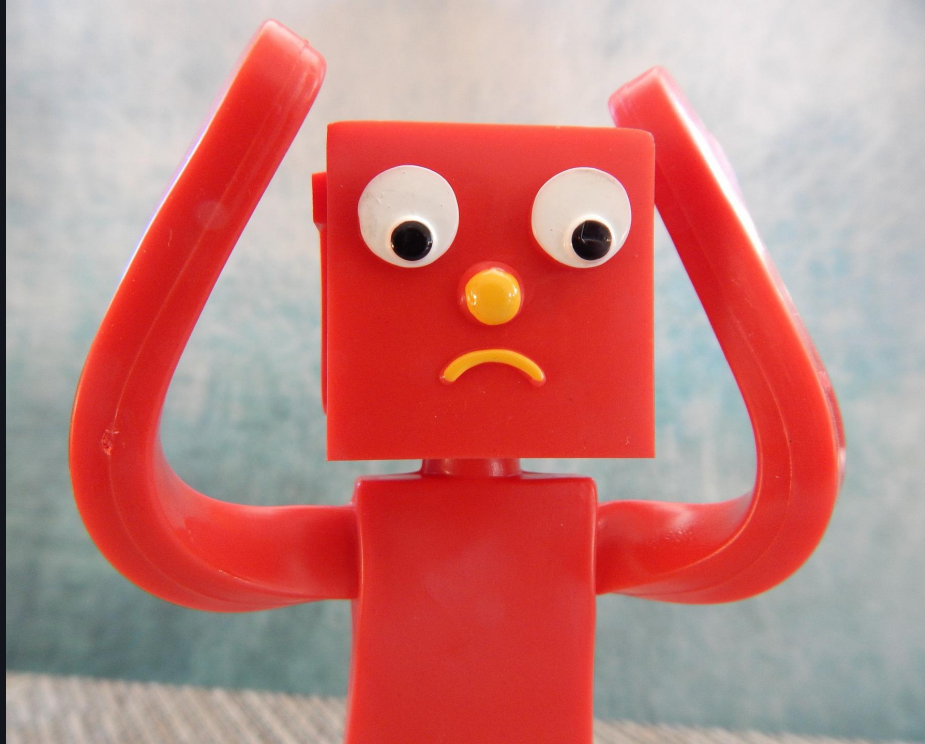
- 01 I'm on-call for WHAT?!
- 02 Alert Triage Hour of Power
- 03 Findings
- 04 Cognitive Apprenticeship
- 05 Outcomes

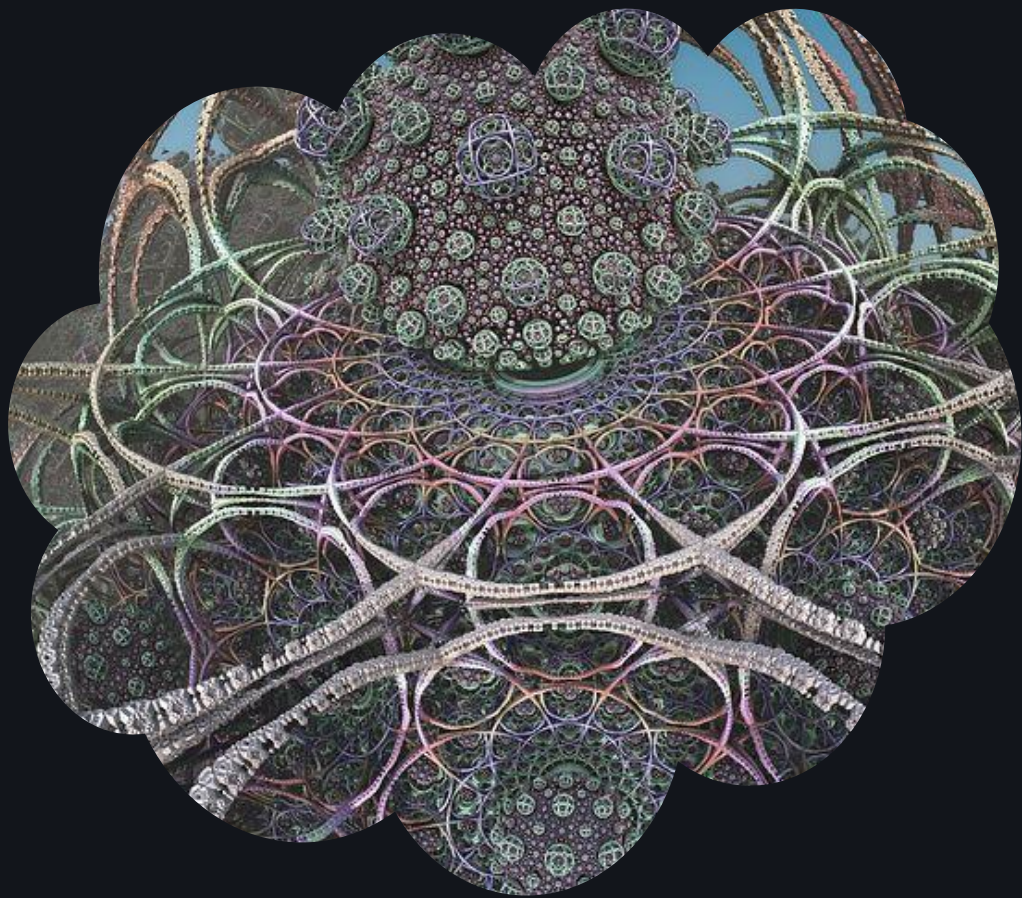




01

I am on-call
for WHAT!?







On-call Onboarding *Before*



Read the
docs



On-call Onboarding *Before*



Read the
docs



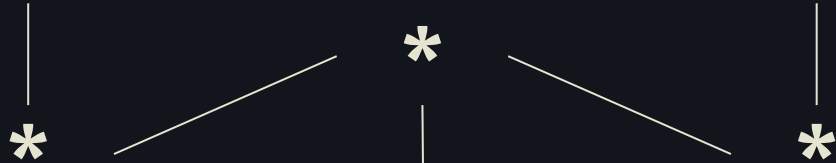
Pair with
buddy



On-call Onboarding *Before*

Read the
docs

Shadow
Primary



Pair with
buddy

On-call Onboarding *Before*

Read the docs

Shadow Primary

*

*

*

*

Pair with buddy

Reverse Shadow



On-call Onboarding *Before*

Read the docs

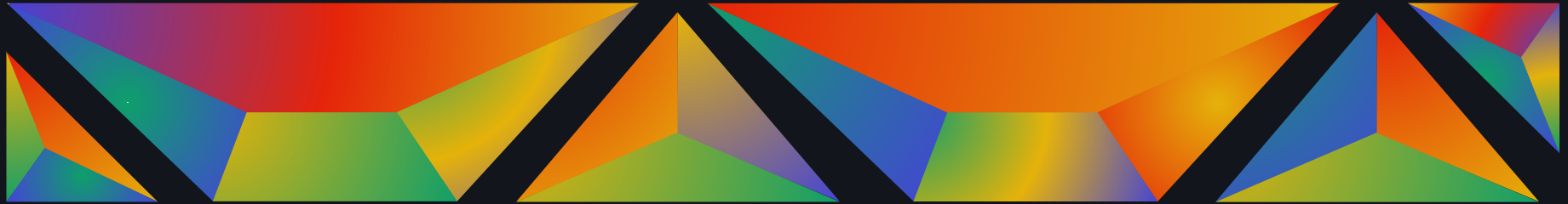
Shadow Primary



Pair with buddy

Reverse Shadow





On-Call Knowledge Areas



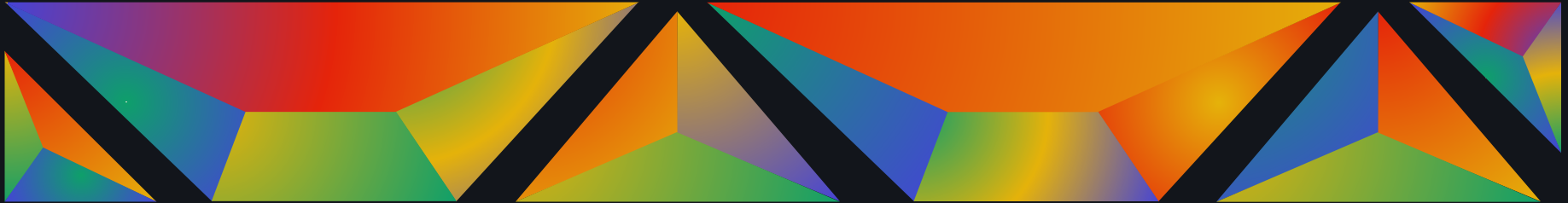
System



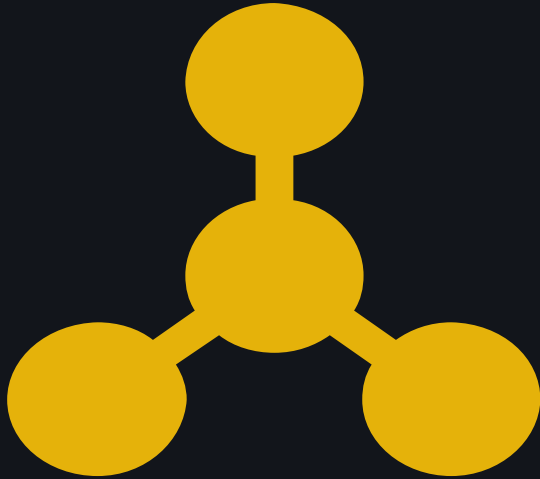
Telemetry



Business
Context



The System



- Application
- Infrastructure
- Release Process
- Architecture

Available Telemetry



- Traces? Events?
Logs?
- Instrumentation
- Querying
- Tags/Attrs

Business Context




- Tool sprawl
- Alert hygiene
- Who owns what

**Sarah H.
Staff SWE**








02

Alert Triage
Hour of Power



The image features a dark blue background with four large, colorful geometric shapes in the corners. Each shape is a complex polygon composed of several overlapping triangles in shades of purple, red, orange, yellow, green, and blue. The shapes are arranged symmetrically, with two on the left and two on the right, framing the central text.

**“[Alert Triage] is the most
valuable meeting on my
calendar” - paigerduty**

Alert Triage Hour of Power

Meeting Intention & Roles	10m
Investigate alert	40m
Wrap up	10m



Roles



Facilitator



Driver



Scribe



Support



Facilitator

Select alert

Stay on track

Set Tone

Protect Recap





Driver



Advocate for your learning needs

Externalize thought process

Ask for guidance



Scribe



Capture learnings

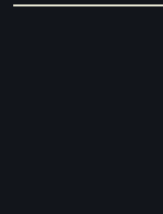
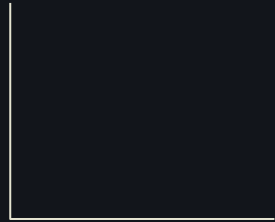
Ask for clarification

Sharing is caring



Support

Differing perspectives



Cheerleaders

Agenda

Meeting Intention & Roles	10m
------------------------------	-----



Set Up

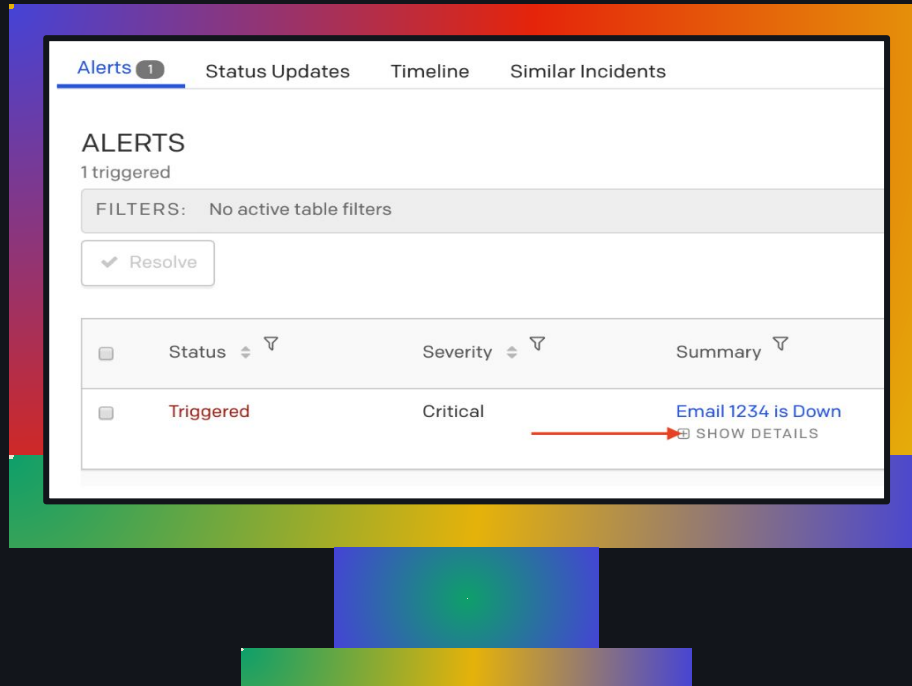


Alert Triage Hour of Power

Meeting Intention & Roles	10m
Investigate alert	40m



ACK the “page”



Verify then trust the alert

```
# 6h latency burn rate
(
  1 - (
    (sum(rate(trace_call_duration_bucket{to_svc="ordering-svc",
to_op="/ordering.Ordering/ListOrders", le="0.5"}[6h])))
    /
    (sum(rate(trace_call_duration_count{to_svc="ordering-svc",
to_op="/ordering.Ordering/ListOrders"}[6h])))
  ) > (6 * 0.000999999999999999432)
)
)
```


Investigate



Alert Triage Hour of Power

Meeting Intention & Roles	10m
Investigate alert	40m
Wrap up	10m





Alert Recommendations

KEEP

TUNE

DELETE

On-call Onboarding *After*



Alert
Triage:
Support
x2



Alert
Triage:
Driver



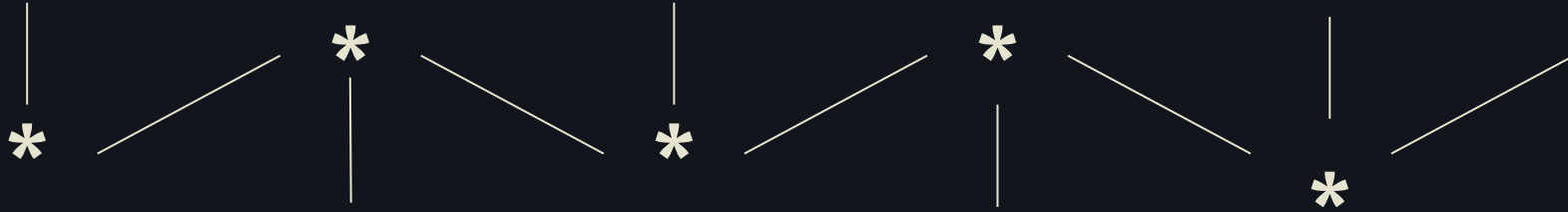
On-call Onboarding *After*



Alert
Triage:
Support
x2

Pair with
buddy

Reverse
Shadow



Alert
Triage:
Driver

Shadow



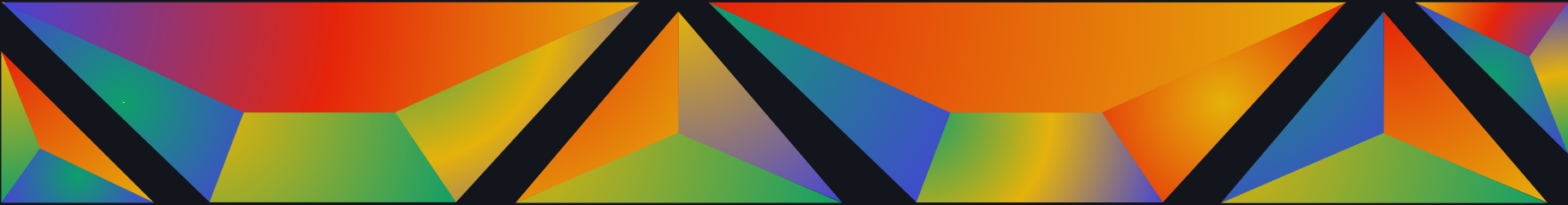
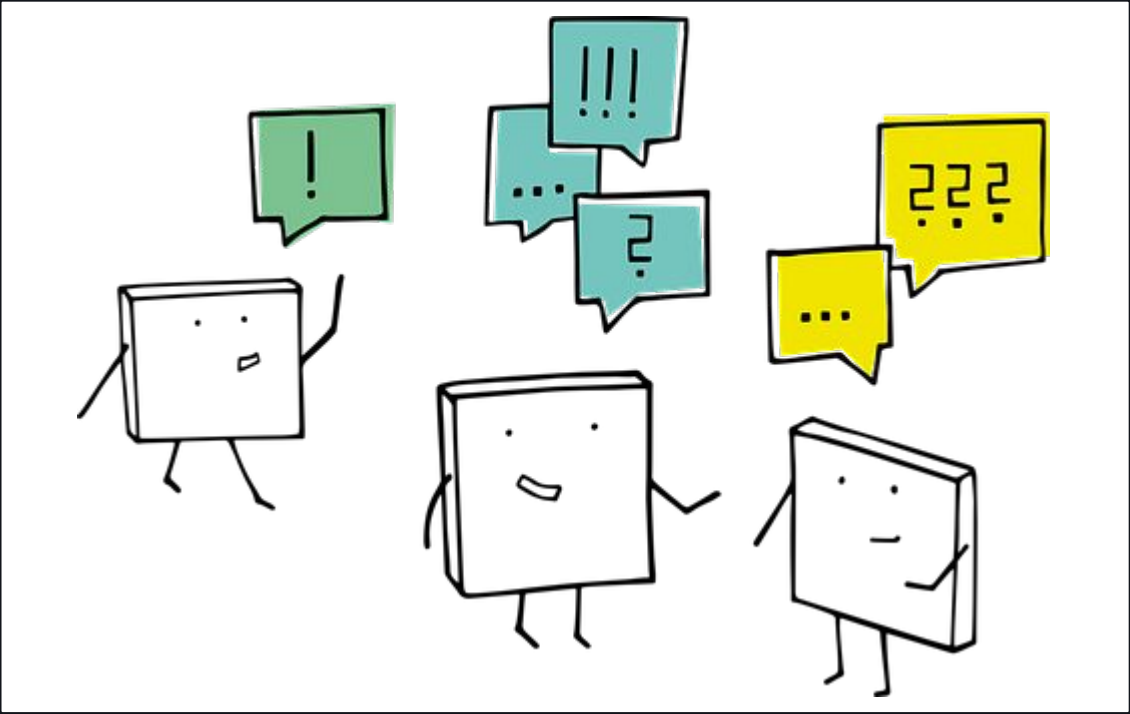


03

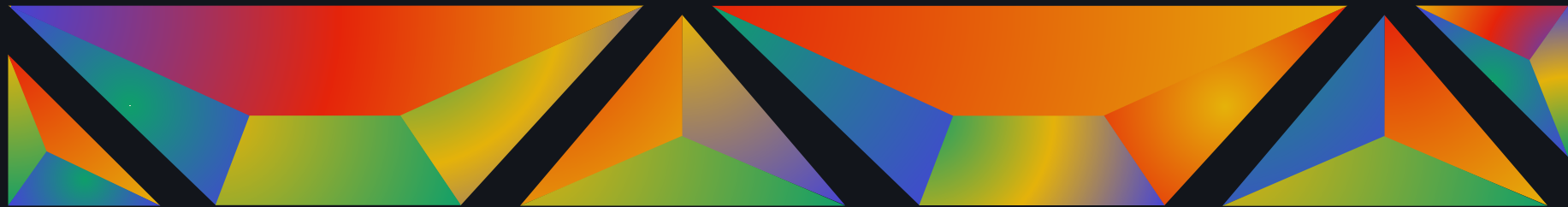
Lessons
Learned

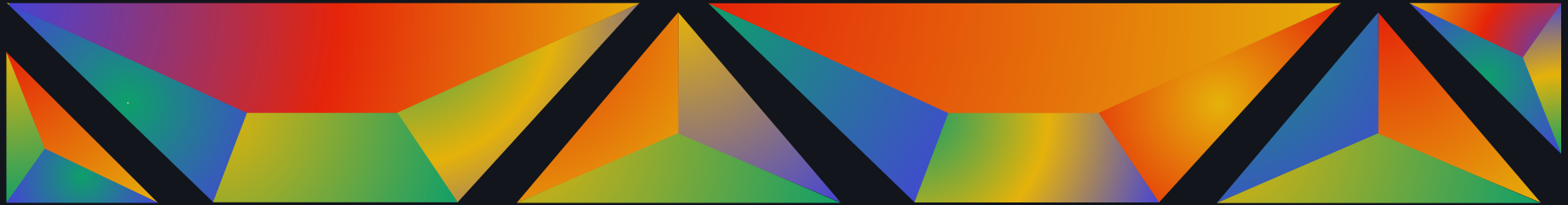
Alerts are
not precious!
- apk

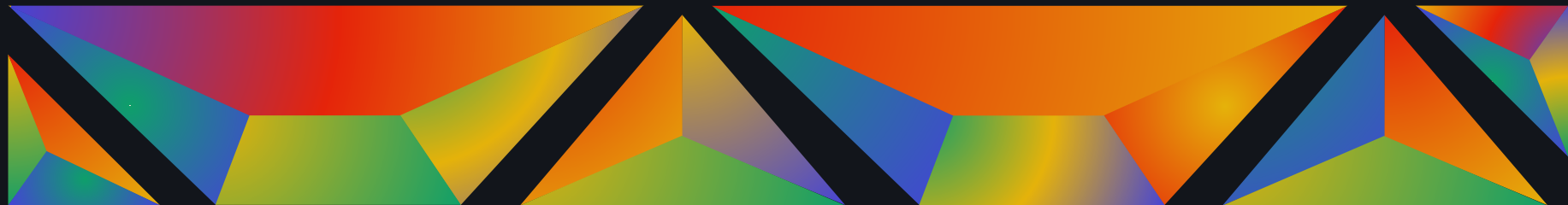
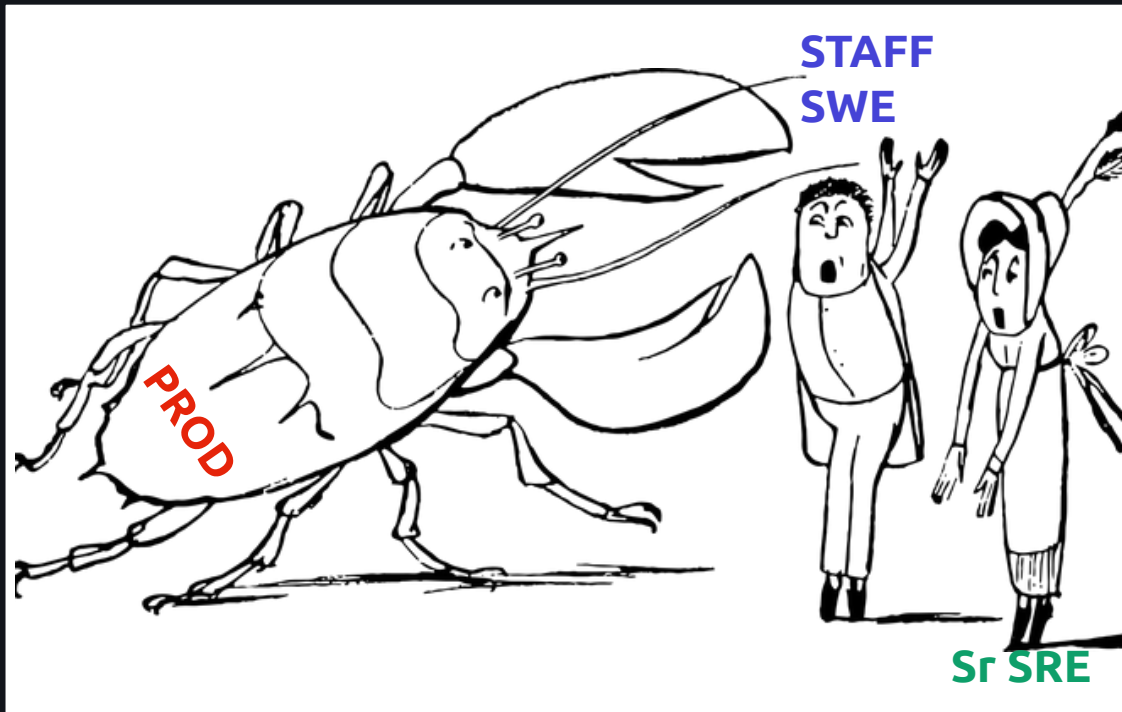




子









Findings



Alerts are not
precious



Findings



Alerts are not
precious



Active listening is
tricky

Findings



Alerts are not
precious



Learning is a worthy
goal



Active listening is
tricky

Findings



Alerts are not
precious



Learning is a worthy
goal



Active listening is
tricky



Alert triaging is not an
innate skill

Findings



Alerts are not precious



Learning is a worthy goal



Active listening is tricky



Alert triaging is not an innate skill



Production can surprise all levels

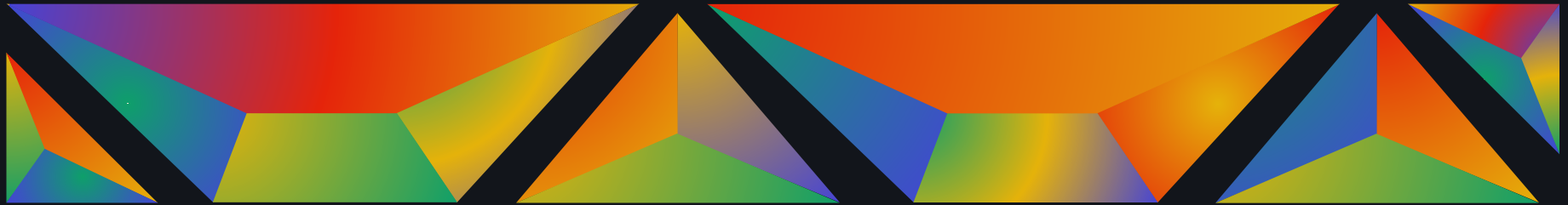


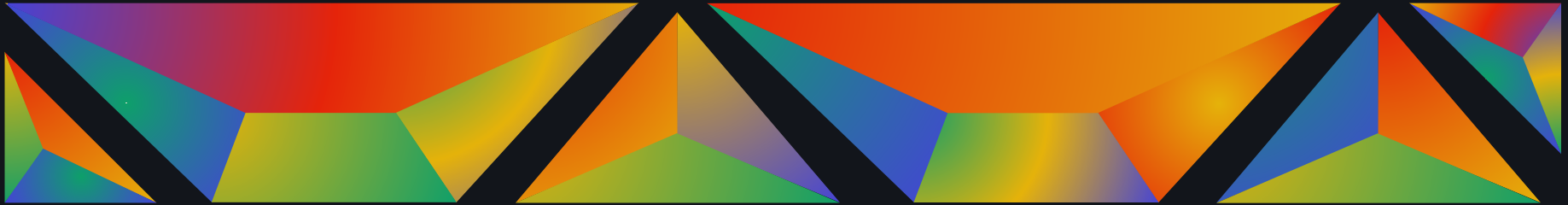
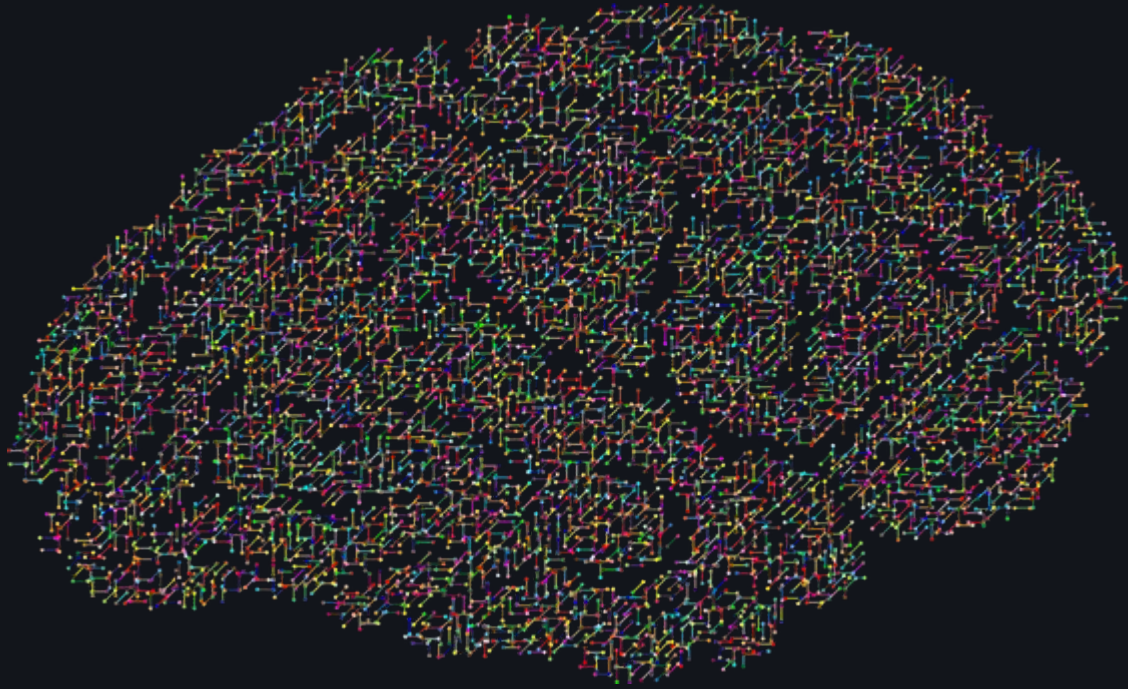
04

Cognitive
Apprenticeship



!mentorship





Apprentice -> Expert



Modeling



Coaching



Scaffolding



Articulation



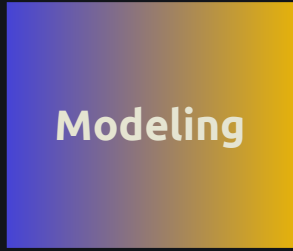
Reflection



Exploration



Alert Triage



Alert Triage



Alert Triage



Alert Triage



Alert Triage



Alert Triage





05

Outcomes

Real Results*

1000% uptime

-50% unactionable alerts

100% runbook coverage

∞ reliability

Real Results

1000% uptime

-50% unactionable alerts

100% runbook coverage

∞ availability

IC meets VP: Explaining Incident Mgmt



Mr. VP



Mr. IC

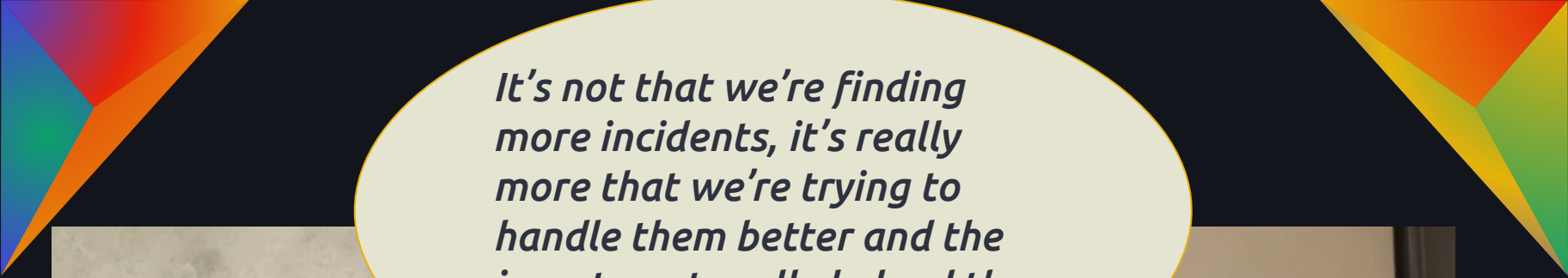


We invested a lot in Incident Management last quarter and incidents went up... Is that expected?



Mr. VP

Mr. IC



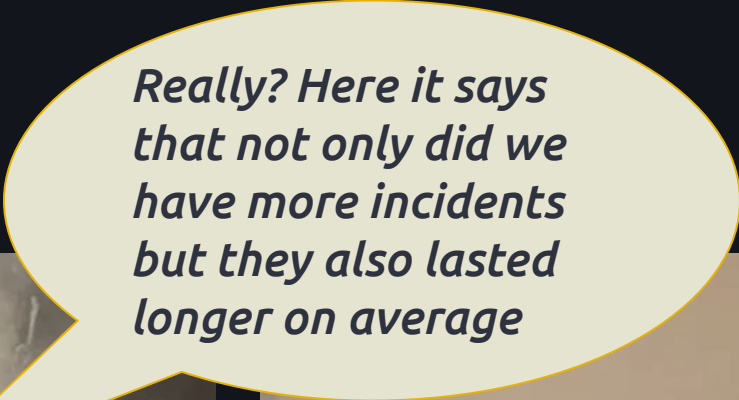
It's not that we're finding more incidents, it's really more that we're trying to handle them better and the investment really helped the team to do that!



Mr. VP



Mr. IC



*Really? Here it says
that not only did we
have more incidents
but they also lasted
longer on average*




Mr. VP



Mr. IC



What's the ROI of Alert Triage Hour of Power?



Really Real Results

3 Years strong

15-20 Regular attendees

EPD Expanded to PM & Designers

0% Reduction in spammy alerts





Margaret Gorguissian · 1:56 PM

And people consistently call it the best meeting at Lightstep -- your legacy lives on!!!

New engineers are always so stoked about it :D





Thanks!



@paigerduty@hachyderm.io



paigerduty



paigerduty.com

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon** and infographics & images by **Freepik**



Booth
#214

