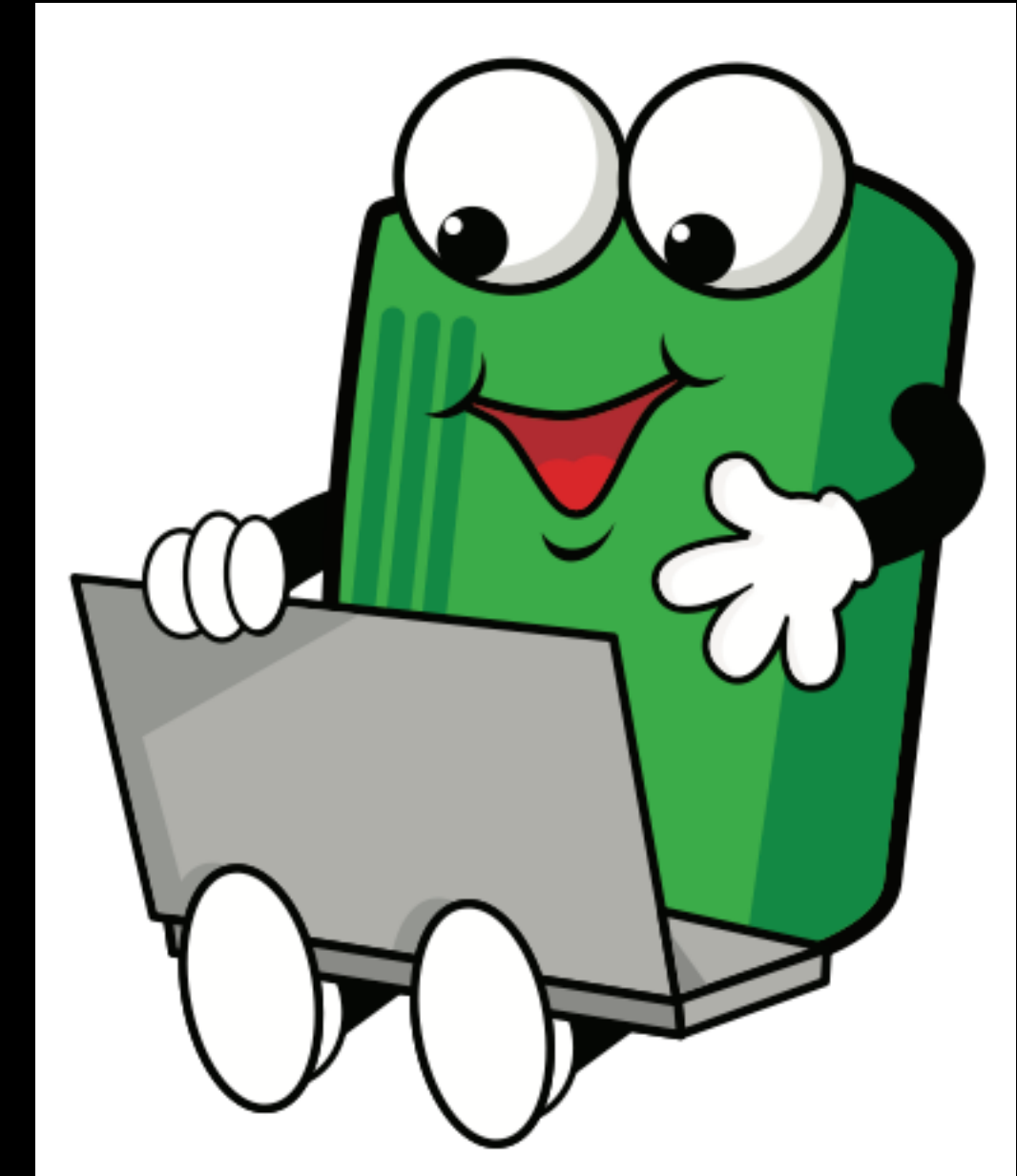


# The Psychology of Chaos Engineering

Matty Stratton, PagerDuty



**Kitchens**

@this\_hits\_home

.@mattstratton has the best hair of any developer advocate 🌟😊

fite me

4:14 PM · Feb 13, 2019 · Twitter for iPhone

**Chaos Engineering is the discipline of experimenting on a system  
in order to build confidence in the system's capability  
to withstand turbulent conditions in production.**

*<https://principlesofchaos.org/>*

**“By running Chaos Monkey in the middle of a business day, in a carefully monitored environment with engineers standing by to address any problems, we can still learn the lessons about the weaknesses of our system, and build automatic recovery mechanisms to deal with them. So next time an instance fails at 3 am on a Sunday, we won’t even notice.”**

*-Netflix Technology Blog, 2011*

<https://bit.ly/netflix-chaos>



# What chaos engineering is NOT







# It's not about breaking things



**Silvia Botros**  
@dbsmasher



Replying to [@mattstratton](#)

It's not about breaking things



**Back off, man... I'm a scientist.**



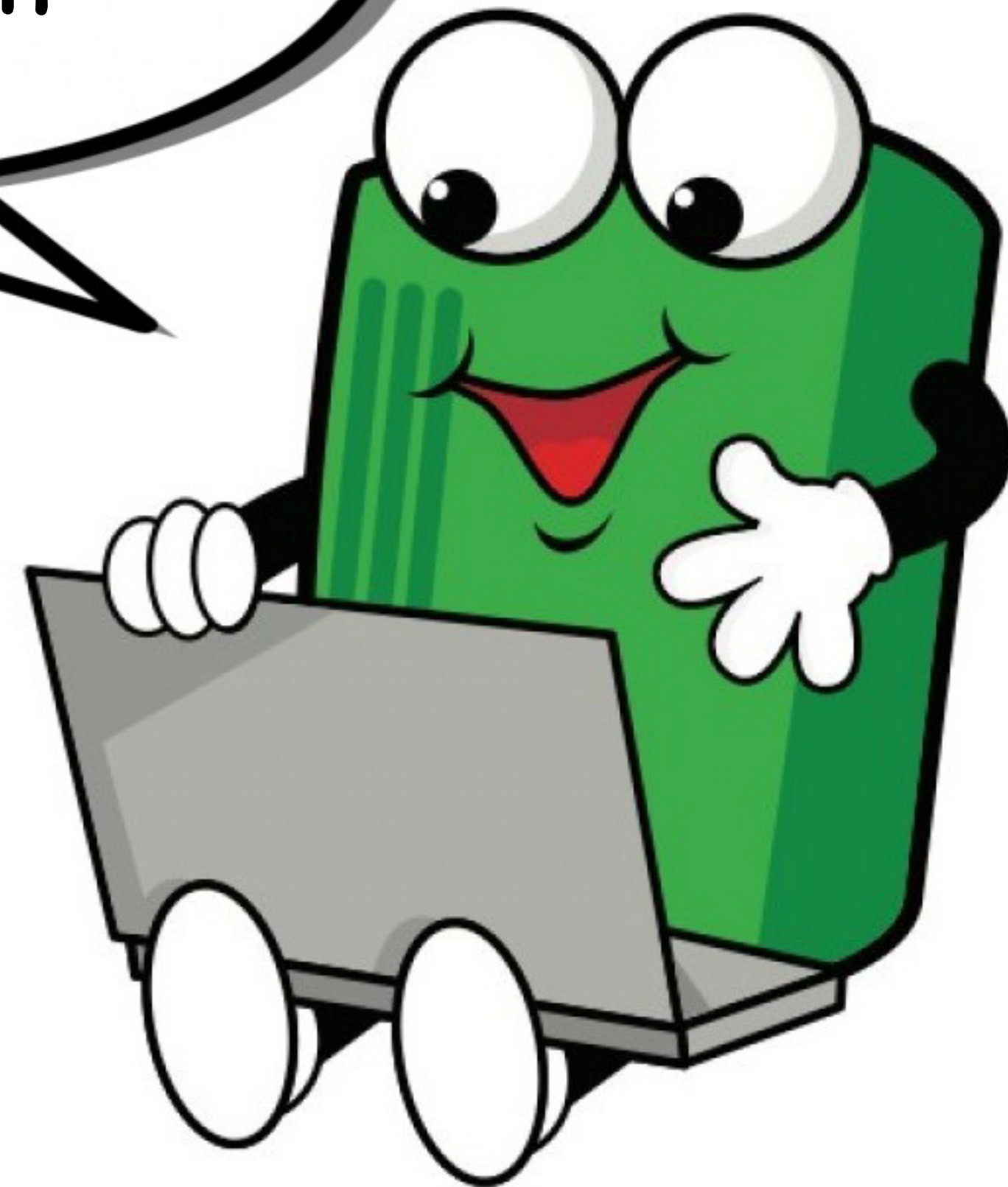
Experimenting in production is  
*preferred*

You can't do this without good  
measurement

# Minimize your blast radius

Something's broken...

...it's your fault





# Some helpful tools

- Netflix Simian Army - <https://github.com/Netflix/SimianArmy>
- Gremlin - <https://www.gremlin.com/>
- ChaosToolkit - <https://chaostoolkit.org/>

But what about the people?

How does it make you feel to know  
Netflix practices chaos  
engineering?

# What about your bank?





**Matty @ devopsdays Baltimore**  
@mattstratton



If you discover a service you consume  
uses chaos engineering in production,  
you feel:

Reassured

91%

Uneasy

9%

Management can get...

...nervous

# Consider your words

It's about the philosophy





Cody ☕️ 🦀 🏔️  
@valarauca1



(not fully using chaos engineering, but had some recent interesting failures from interns)

In all honesty I generally feel excitement when confronted with a new error that hasn't occurred before. Finding out the root of the error (logic, oversight, etc.) is fun and challenging

# Safety first

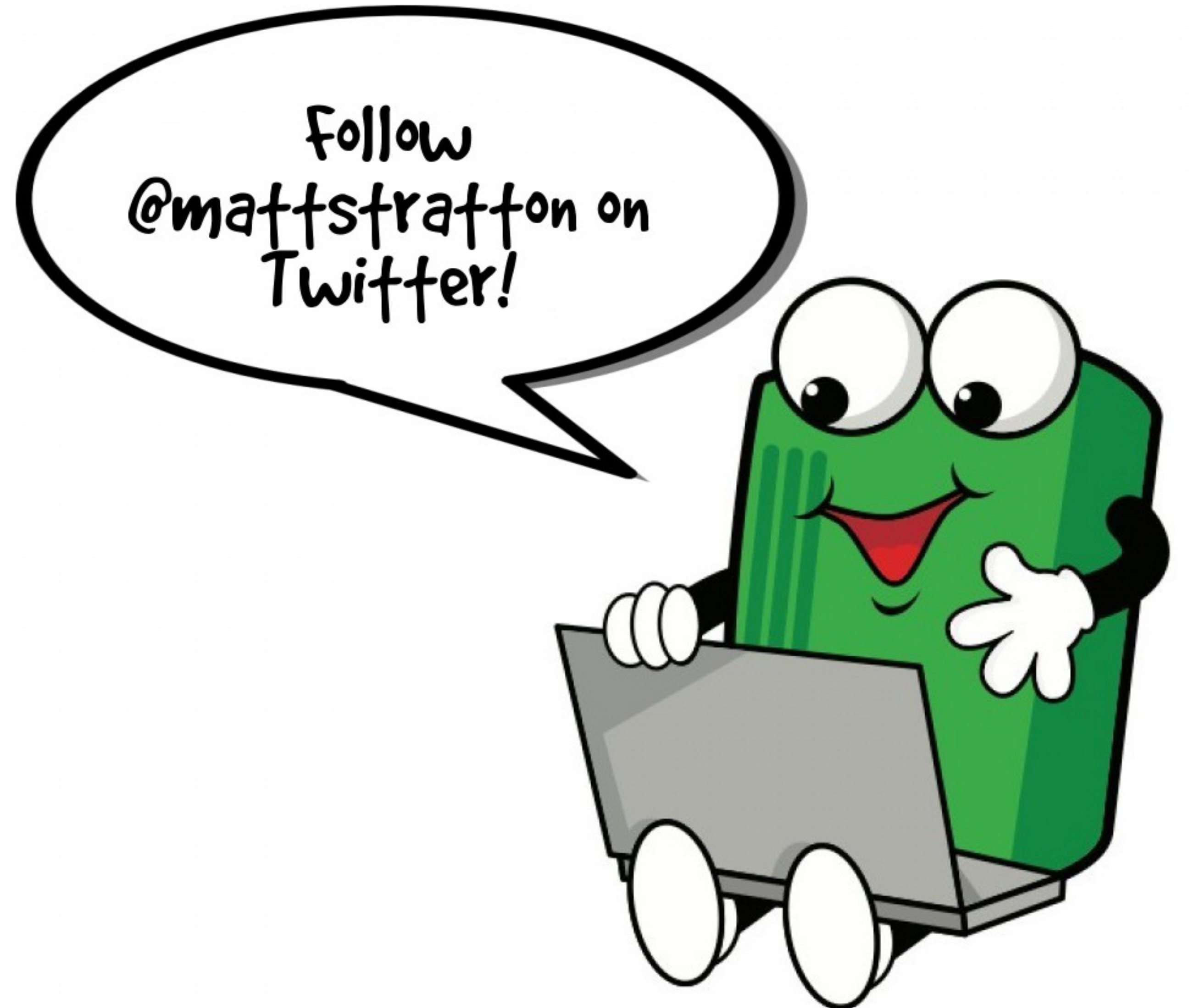
- Know your conditions - when will you shut down the experiment?
- This isn't about causing stress on your people - be transparent
- There are humans at the other end of those numbers

# Further Reading

- Chaos Engineering Traps - Nora Jones [bit.ly/2Pr53ZH](https://bit.ly/2Pr53ZH)
- ChaosCat: Automating Failure Injection at PagerDuty [bit.ly/2UCbdXN](https://bit.ly/2UCbdXN)
- ChaoSlingr: Introducing Security into Chaos Testing [bit.ly/2GDZN1V](https://bit.ly/2GDZN1V)

<https://speaking.mattstratton.com>

# Pagey Says....





# Session Evaluations in the App

