

Measuring Chaos

Chaos Engineering and Team Health

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Velocity Berlin 2019
#velocityconf

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Previous lives: PagerDuty, SoundCloud, 500px

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MapMyFitness

With over 35 million users, MapMyFitness is the largest digital fitness community in the world, and it's still growing.

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MyFitnessPal

Over 100 million dedicated users and 3 billion foods have made this the world's leading nutrition tracking app.

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Over 20 million of the most dedicated fitness enthusiasts have made Endomondo the #1 personal training app.

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“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/>

In Practice

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Confirming Known Knowns

Testing Known Unknowns

Finding Unknown Unknowns

Game Days

Smaller Experiments

Assumptions

This talk will apply to teams who:

- Develop services that have to be running 24/7
- Are on-call for those services
- Have a range of expertise related to the services they own

Why do we care about team health?

Being on-call is stressful

Incidents can be traumatic

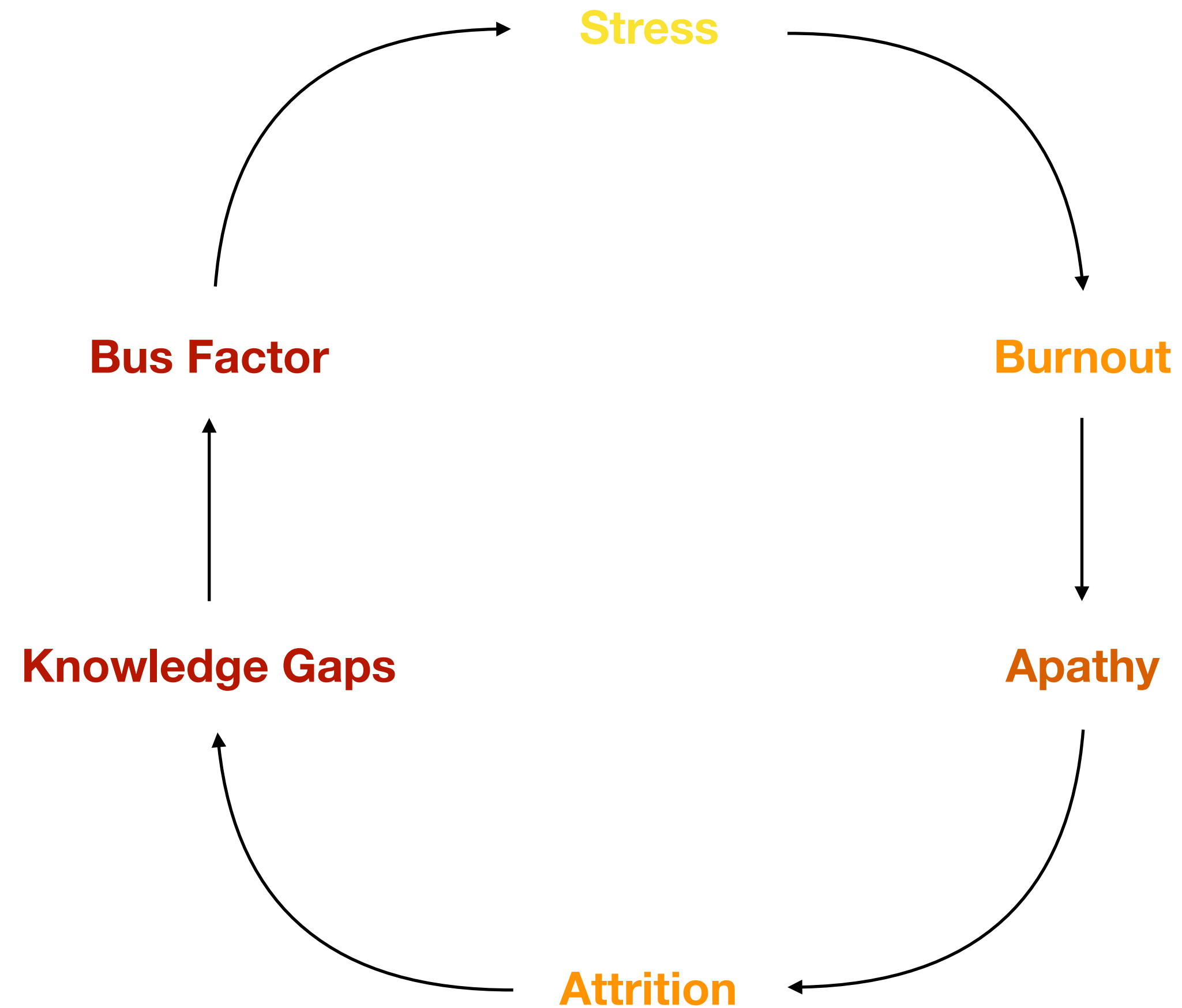
Trauma lasts

Stress

Degrades

Performance

Feedback Loop of Doom



Having a burned out teammate is like having a database cluster rapidly running out of disk, except it's *way harder to fix* and has *worse long-term consequences*

People are part of the system

above



the line

below



Practical Chaos

Engineering

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“Incidents are unplanned investments”

- John Allspaw, Adaptive Capacity Labs

WARNING!

This talk advocates collecting qualitative data*

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* qualitative data is known to cause extreme discomfort in some engineers and many executives

Tip # 1

Use Game Days to Verify and Validate Work Done

Tip # 2

Designing Chaos Experiments is Useful

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Ownership Gaps

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“Untouchable” Components

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We don't have time

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Tip # 3

Post Game Day Surveys

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Discover mythologies

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Tip # 4

Treat game day write ups like post incident write ups

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Put Analytics on Them - Track Engagement

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Tip # 5

Use insights from incidents to plan chaos experiments

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Team is learning together

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Tip # 6

THEATRE DU CHAOS

Administration

Sonnez S.V.P.

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Tip # 7

Identity advocates and empower them

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Chaos Eng Happening without You!

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Tip # 8

Use Chaos Experiments in Onboarding

Summary

Stress negatively impacts organizational performance

Chaos Engineering can give engineering teams a sense of empowerment


Designing experiments can help unearth signals about a team's health

Decentralize, empower, elevate

Rate today's session

Cyberconflict: A new era of war, sabotage, and fear See passes & pricing

David Sanger (The New York Times)
9:55am-10:10am Wednesday, March 27, 2019
Location: Ballroom
Secondary topics: [Security and Privacy](#)


Rate This Session 

We're living in a new era of constant sabotage, misinformation, and fear, in which everyone is a target, and you're often the collateral damage in a growing conflict among states. From crippling infrastructure to sowing discord and doubt, cyber is now the weapon of choice for democracies, dictators, and terrorists.

David Sanger explains how the rise of cyberweapons has transformed geopolitics like nothing since the invention of the atomic bomb. Moving from the White House Situation Room to the dens of Chinese, Russian, North Korean, and Iranian hackers to the boardrooms of Silicon Valley, David reveals a world coming face-to-face with the perils of technological revolution—a conflict that the United States helped start when it began using cyberweapons against Iranian nuclear plants and North Korean missile launches. But now we find ourselves in a conflict we're uncertain how to control, as our adversaries exploit vulnerabilities in our hyperconnected nation and we struggle to figure out how to deter these complex, short-of-war attacks.

David Sanger
The New York Times

David E. Sanger is the national security correspondent for the *New York Times* as well as a national security and political contributor for CNN and a frequent guest on *CBS This Morning*, *Face the Nation*, and many PBS shows.




Session page on conference website

✓ **Attending** Notes Remove

Cyberconflict: A new era of war, sabotage, and fear

🕒 9:55 AM - 10:10 AM, Wed, Mar 27, 2019



Speakers

 **David Sanger**
National Security Correspondent
The New York Times

📍 Ballroom

Keynotes

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 **SESSION EVALUATION** 

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