

A blurry, out-of-focus photograph of a social gathering, likely a party or a pub. Several people are visible, though their features are not clear, holding glasses filled with a light-colored liquid, presumably beer. The scene is dimly lit, with a warm, golden glow.

THE DISTRIBUTED HANGOVER: WE WERE PROMISED DEVOPS

Christian Tragesser

DevOps Consultant

<https://www.linkedin.com/in/christian-tragesser/>



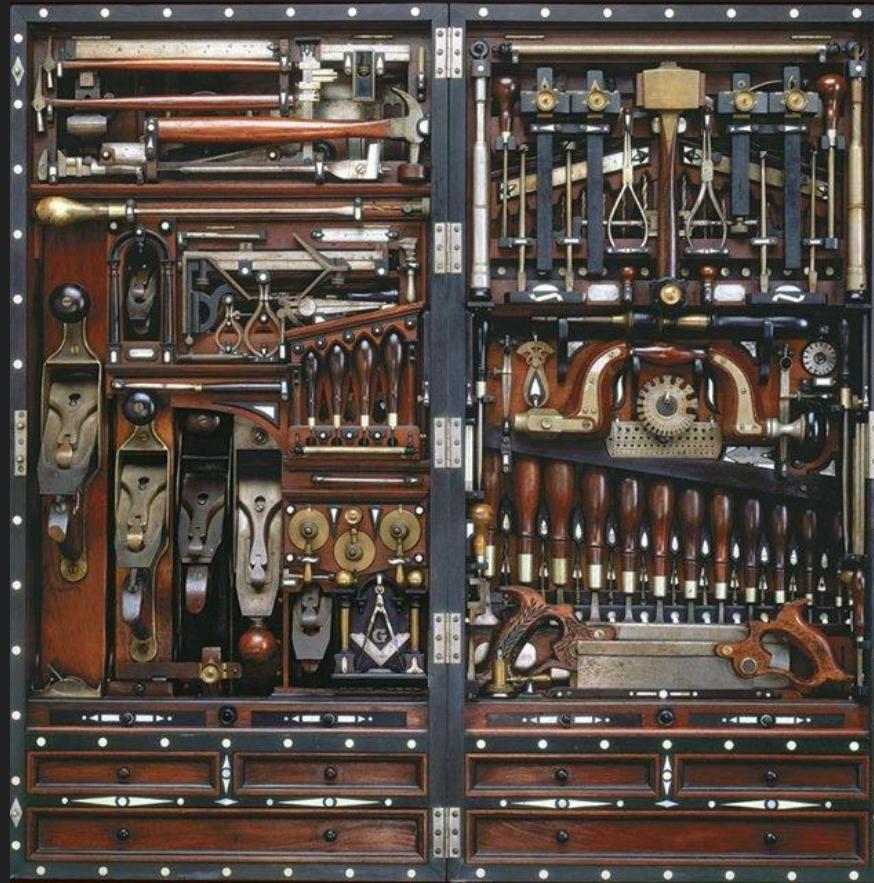


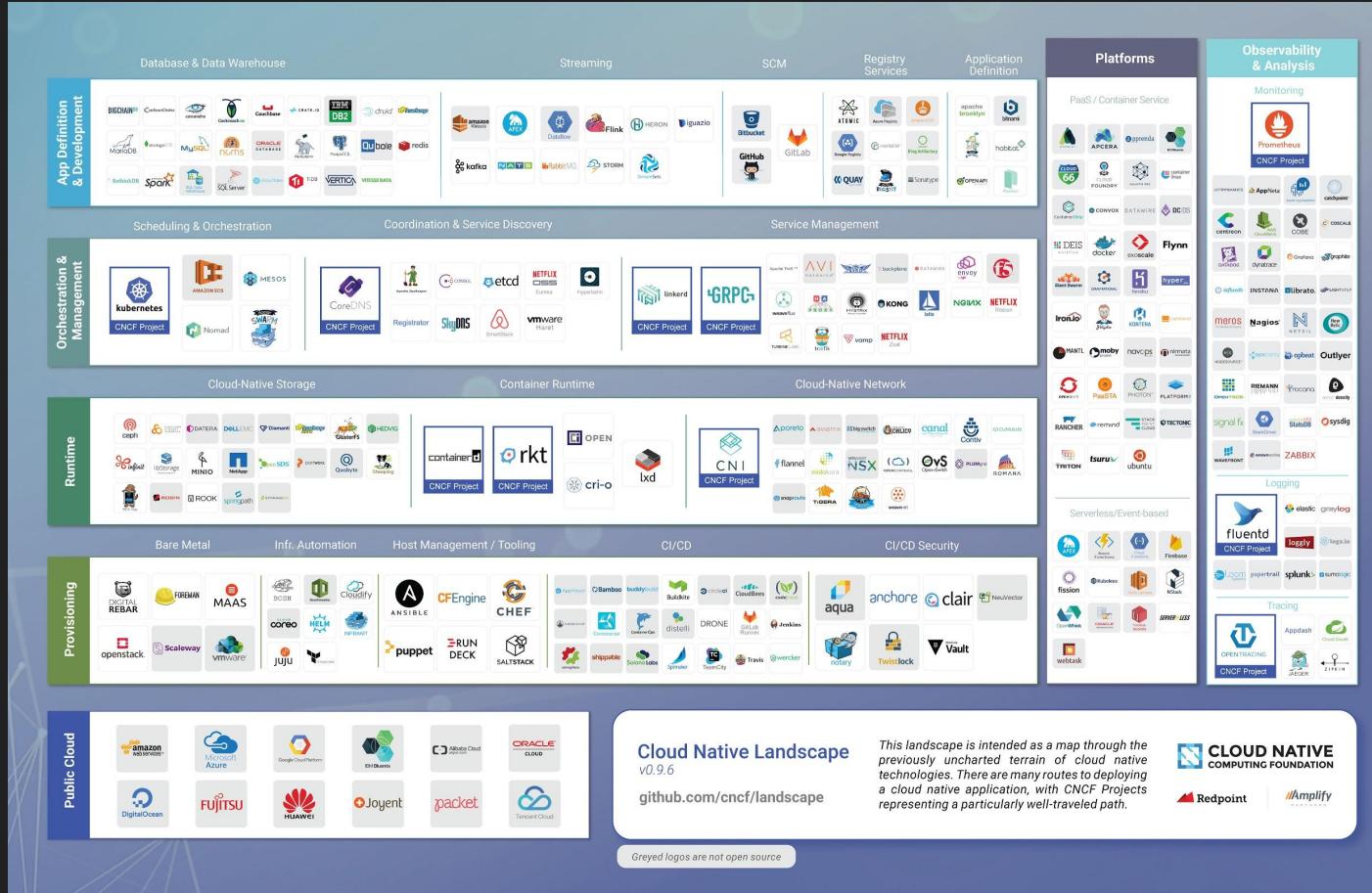


Can you identify the solutions you're
expecting new tools to provide?

“Digital Transformation”









10 deploys per day
Dev & ops cooperation at Flickr

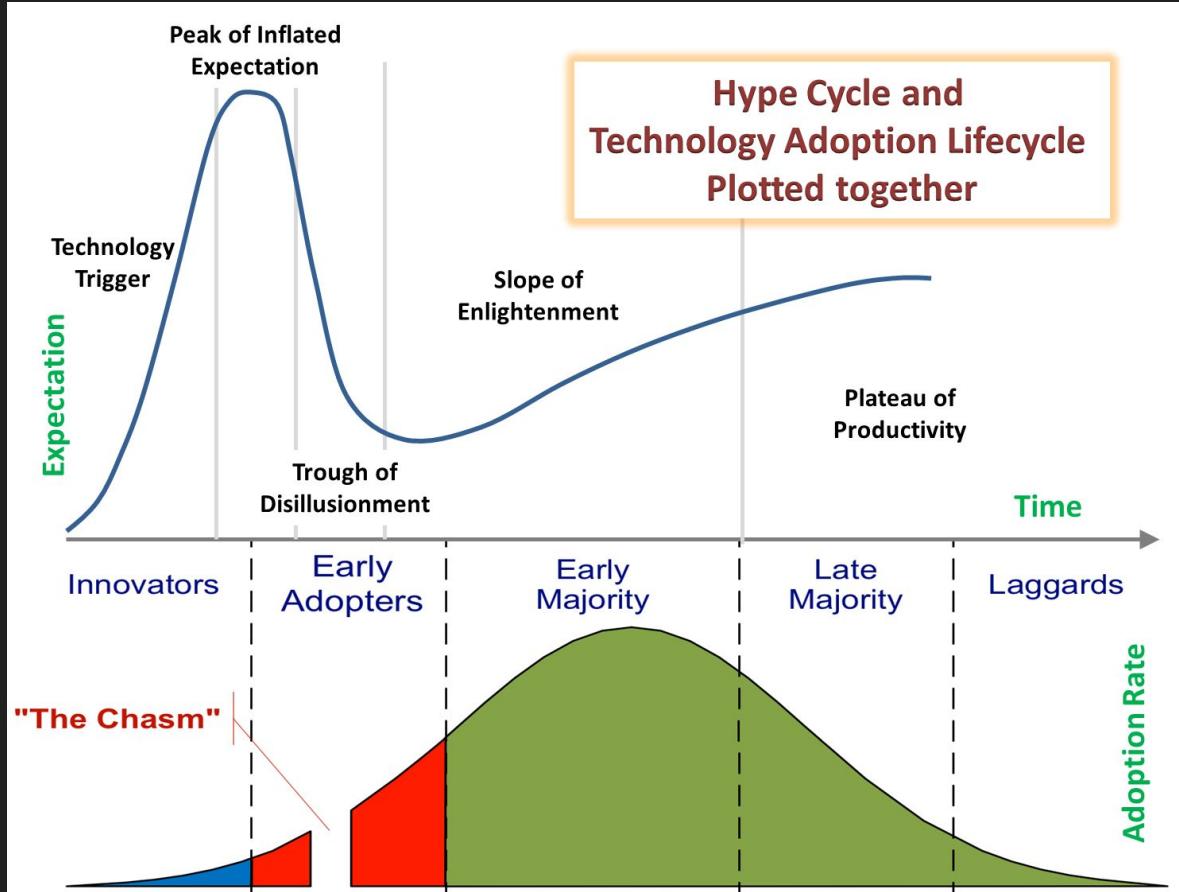
John Allspaw & Paul Hammond
Velocity 2009

*"Failure is the opportunity to begin again,
more intelligently."*

- Henry Ford

"The future is already here — it's just not very evenly distributed."

- William Gibson



Majority != Innovators || Early Adopters

TYPES OF TRANSFORMATION

- Technical (“easier”)
- Cultural

MICROSERVICES



DISTRIBUTED DEVELOPMENT

- Fallacies of distributed computing
- CAP theorem
- CI (continuous validation)
- Twelve-Factor App
- Conway's Law



HUGE IO
@HUGEIO

Follow



You can't fix fundamental problems by adopting advanced practices. Fix the fundamentals first.

2:12 PM - 28 Jan 2019 from Franklin, TN

19 Retweets 47 Likes



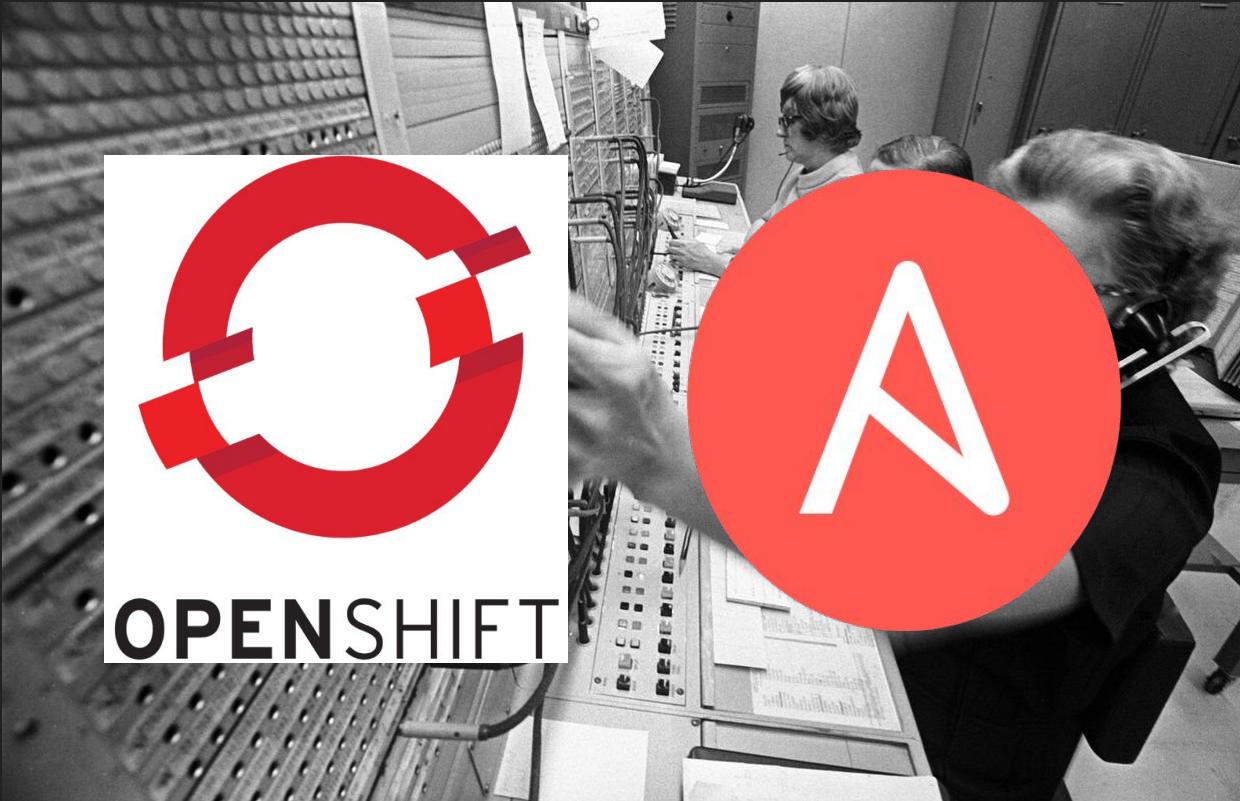
19

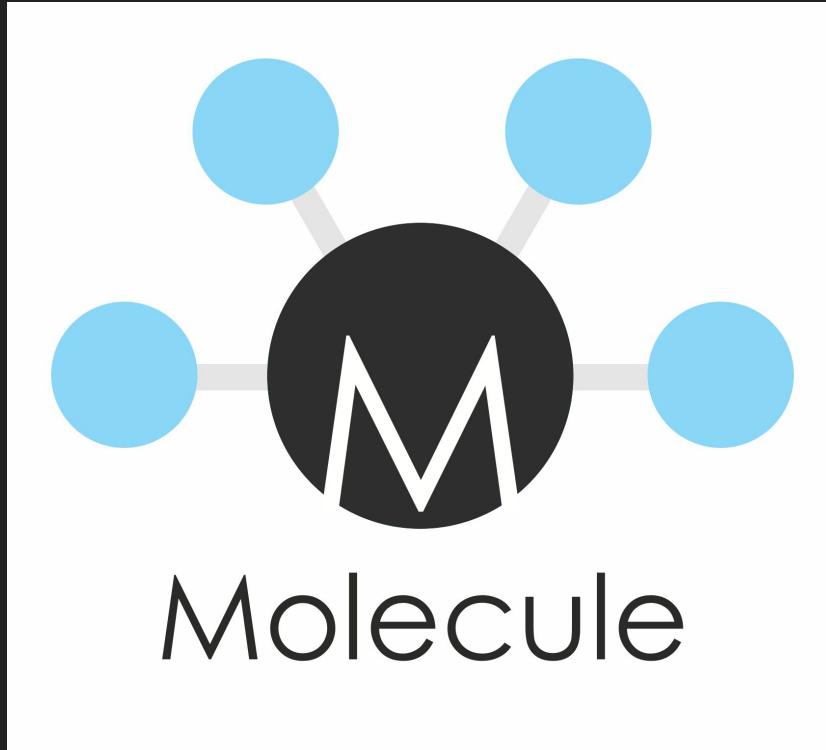


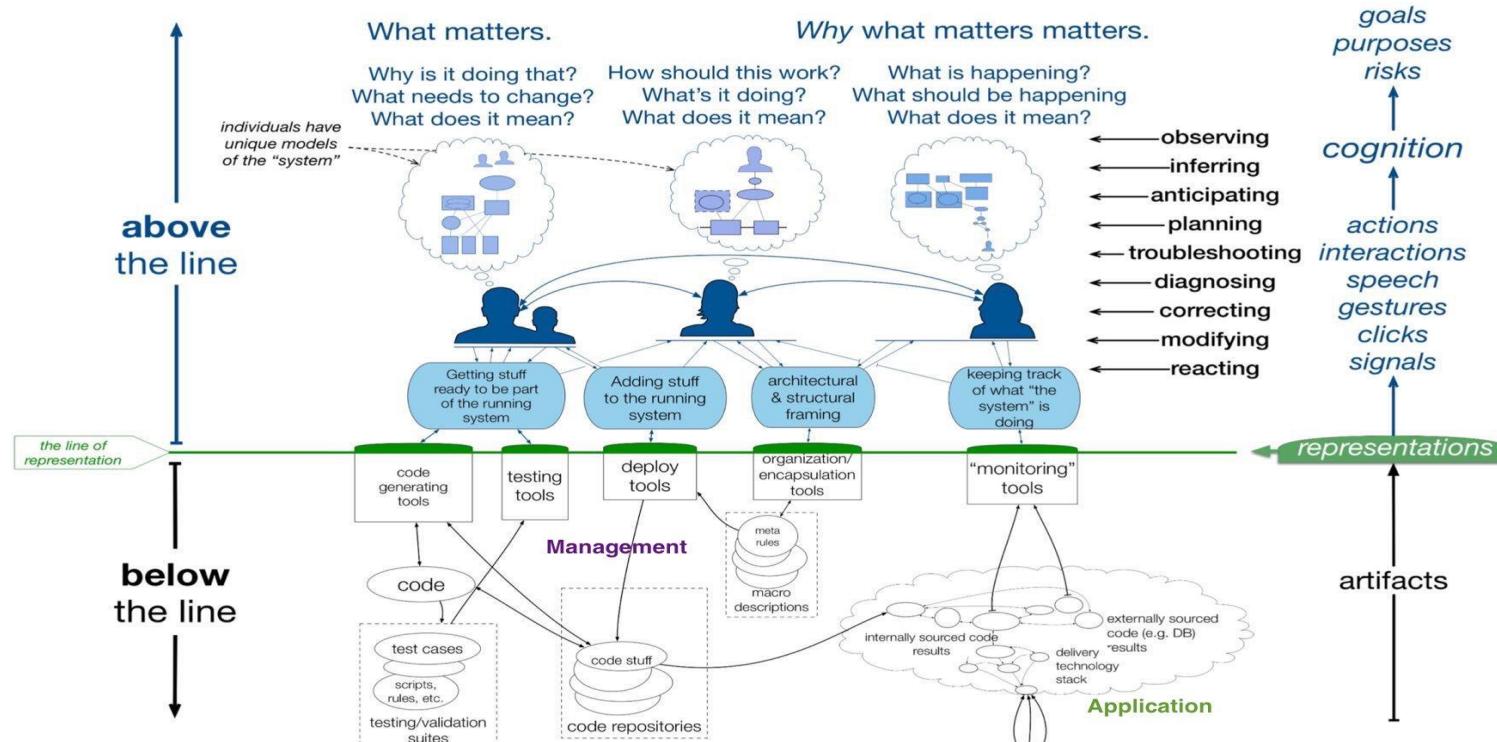
47



CLOUD NATIVE OPERATIONS









Honest Status Page

@honest_update

Follow



We replaced our monolith with micro services so that every outage could be more like a murder mystery.

6:10 PM - 7 Oct 2015

3,015 Retweets 2,577 Likes



22



3.0K



2.6K





Service Level Indicator (SLI)



Key Performance Indicator (KPI)



“You are either building a learning organization....or you will lose to someone who is.”

- Andrew Clay Shafer

TYPES OF TRANSFORMATION

- Technical
- Cultural (“hard”)



It is not necessary to change. Survival is not mandatory.

- W. Edwards Deming -

CALMS

| <u>Culture</u> | <u>Automation</u> | <u>Lean</u> | <u>Measurement</u> | <u>Sharing</u> |
|---|---|---|--|---|
| <ul style="list-style-type: none">• Business value incentives• Embraces change• Empathy• Feedback• Trust• Freedom and responsibility | <ul style="list-style-type: none">• Infrastructure provisioning• Testing• Deployments• Service discovery• Observation• HA/FT | <ul style="list-style-type: none">• Value streams• Eliminate waste• Built-in quality• Theory of constraints• WIP management | <ul style="list-style-type: none">• Data over opinions• Value focused telemetry | <ul style="list-style-type: none">• Eliminate knowledge silos• Enable others |

WESTRUM TYPOLOGY OF CULTURES

| Pathological (power-oriented) | Bureaucratic (rule-oriented) | Generative (performance-oriented) |
|-------------------------------|------------------------------|-----------------------------------|
| Low cooperation | Modest cooperation | High cooperation |
| Messengers shot | Messengers neglected | Messengers trained |
| Responsibilities shirked | Narrow responsibilities | Risks are shared |
| Bridging discouraged | Bridging tolerated | Bridging encouraged |
| Failure leads to scapegoating | Failure leads to justice | Failure leads to enquiry |
| Novelty crushed | Novelty leads to problems | Novelty implemented |

Netflix Culture: Freedom & Responsibility



NETFLIX

1

We Seek Excellence

Our culture focuses on helping us
achieve excellence

Spotify Engineering Culture

Part 1 of 2

Henrik Kniberg

Jan 2014





2018

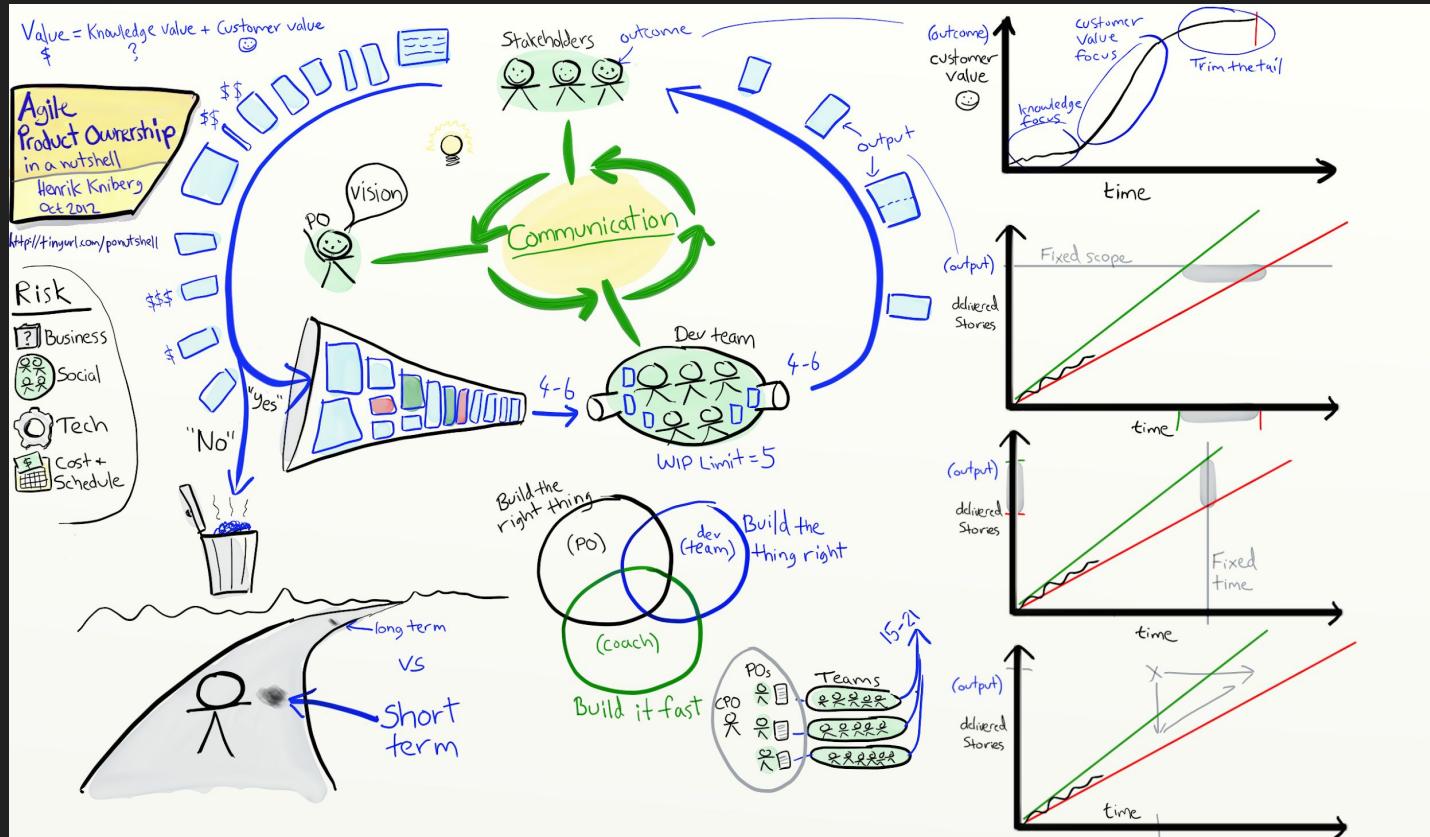
Accelerate: **State of DevOps**

Strategies for a New Economy



Google Cloud

AGILE PRODUCT OWNERSHIP IN A NUTSHELL





1. SATISFY THE CUSTOMER THROUGH EARLY AND CONTINUOUS DELIVERY

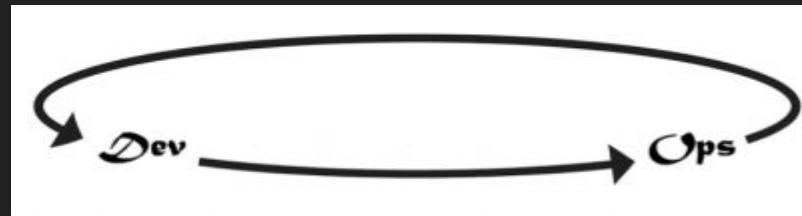
7. WORKING SOFTWARE IS THE PRIMARY MEASURE OF PROGRESS
8. AGILE PROCESSES SHOULD PROMOTE A SUSTAINABLE PACE
9. CONTINUOUS ATTENTION TO TECHNICAL AND DESIGN EXCELLENCE
10. MAXIMIZE THE AMOUNT OF WORK NOT DONE WITH SIMPLICITY
11. SELF-ORGANIZING TEAMS PRODUCE THE BEST WORK
12. REFLECT AND ADJUST AT REGULAR INTERVALS

THE THREE WAYS OF DEVOPS

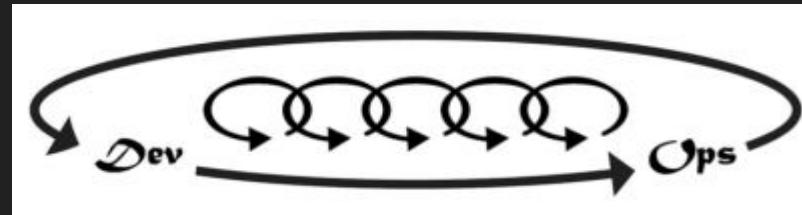
Systems Thinking:
(Flow)

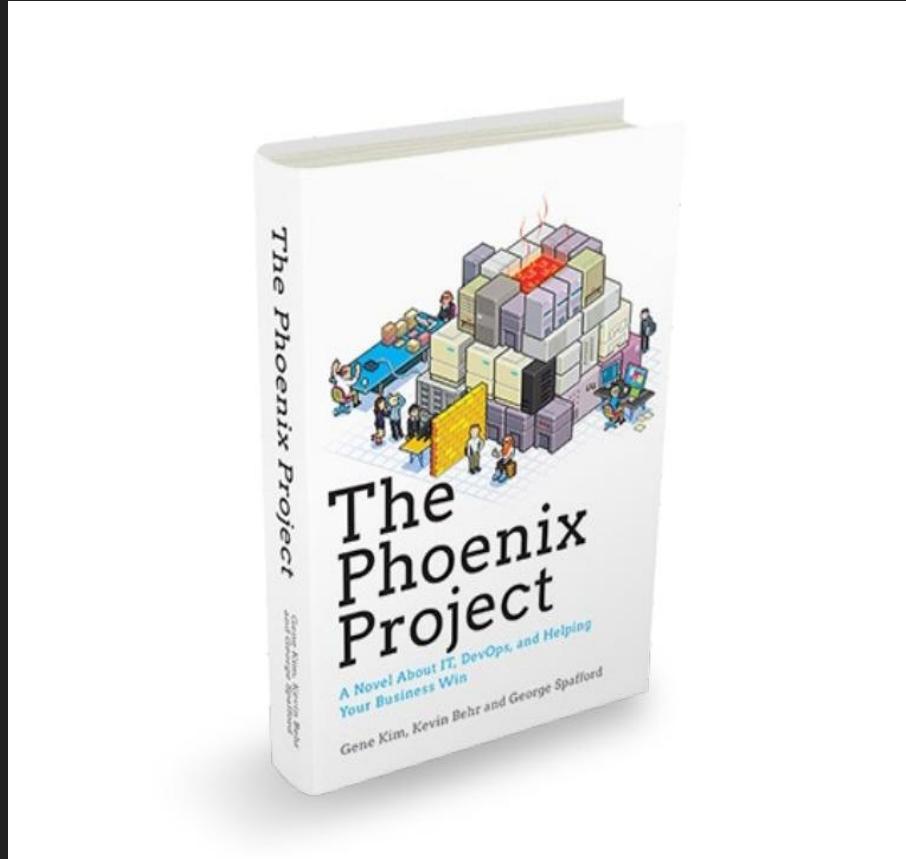


Feedback Loops:



Learning and
Experimentation:





*“When hoping to improve performance, organizations often focus on buying solutions in the form of tools, vendors, and methodologies. **However what’s important is the capabilities these solutions enable, not the solutions themselves.**”*

- 2018 State of DevOps Report

vulnerability

Core Values

THE PATH

to employee and company success

- T**rust - In character and competency
- H**umility - stay grounded; never forget where you come from
- E**mbrace change and diversity of people and thought
- P**assion and a strong work ethic
- A**ttitude - be positive and open-minded
- T**eam player - proactively share ideas
- H**onesty and integrity

The World Wide Way.



World Wide Technology, Inc.

"Vulnerability is the birthplace of innovation, creativity, and change."

- Brené Brown

NOTES

- 10 deploys per day: *Dev and Ops cooperation at Flickr* - John Allspaw/ Paul Hammond : <https://www.youtube.com/watch?v=LdOe18KhtT4>
- Fallacies of distributed computing:
https://en.wikipedia.org/wiki/Fallacies_of_distributed_computing
- CAP Theorem: https://en.wikipedia.org/wiki/CAP_theorem
- Continuous Integration:
<https://continuousdelivery.com/foundations/continuous-integration/>
- Twelve-Factor Application: <https://12factor.net/>
- Conway's Law: https://en.wikipedia.org/wiki/Conway%27s_law
- Molecule(Ansible test framework): <https://molecule.readthedocs.io/en/latest/>

NOTES

- *How Your Systems Keep Running Day After Day* - John Allspaw:
<https://www.youtube.com/watch?v=xA5U85LSk0M>
- Netflix Freedom and Responsibility Culture:
https://igormroz.com/documents/netflix_culture.pdf
- Spotify's Engineering Culture:
<https://labs.spotify.com/2014/03/27/spotify-engineering-culture-part-1/>
- DORA State of DevOps Report: <https://devops-research.com/>
- Agile Product Ownership in a Nutshell:
<https://www.youtube.com/watch?v=502ILHjX9EE>
- *Listening to Shame* - Brené Brown:
https://www.ted.com/talks/brene_brown_listening_to_shame/transcript?language=en#t-911129

THANK YOU FOR ATTENDING

REFERENCES

- <https://www.urbanadventures.com/blog/melbourne-historic-bars.html>
- <https://sosasharon.com/2017/10/06/how-to-deal-with-the-fear-of-being-left-behind/>
- <https://www.horizon.eu/wp-content/uploads/2015/04/vlaggensysteem.jpg>
- <https://www.inverse.com/article/32089-marijuana-hangover-pot-edibles>
- https://thefancy-media-ec5.thefancy.com/1280/20101217/217045679_286facab0b20.jpeg
- <https://airfreshener.club/quotes/infrastructure-cloud-application-stacks-infrastructure.html>
- <https://www.flickr.com/photos/zsqr0000/6244726320/sizes/l>
- <https://www.slideshare.net/jallspaw/10-deploys-per-day-dev-and-ops-cooperation-at-flickr>
- <https://medium.com/@andrewoons/how-to-get-bitcoin-from-the-early-adopters-to-the-early-majority-d0c441421c3e>
- <https://www.pinterest.co.uk/pin/668151294687132644/>
- https://www.flickr.com/photos/boston_public_library/6350327059
- <http://redhat.slides.com/ulilieen/kubernetes-and-openshift#/>
- <https://www.ansible.com/>
- <https://github.com/ansible/molecule>
- <http://quoteparrot.com/quotes/w-edwards-deming/98532-it-is-not-necessary>
- <https://continuousdelivery.com/implementing/culture/>
- <https://twitter.com/allspaw/status/915674854812274688>
- <http://www.missthinker1992.blogfa.com/1390/08>
- <https://cellcode.us/quotes/how-count-respirations.html>

REFERENCES

- http://diysolarpanelsv.com/measure-height-clipart.html#gal_post_20512_measure-height-clipart-28.jpg
- <https://santeconnexion.com/poids/oregon-balance-pese-personne-connecte-ssmart-family-fit-4828.html>
- <http://slender-spa.com/our-services/woman-standing-pulling-measuring-tape-around-waist/>
- <https://www.adctoday.com/learning-center/about-sphygmomanometers/how-take-blood-pressure>
- <https://www.slideshare.net/rnwolf/tui-the-phoenix-project-book-review>
- <https://www.youtube.com/watch?v=wISxqJBPkHA>
- <https://itrevolution.com/the-three-ways-principles-underpinning-devops/>
- <http://www.barryovereem.com/agile-product-ownership-in-a-nutshell-drawing-by-henrik-kniberg/>