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# Learning & Teaching DevOps in the Enterprise

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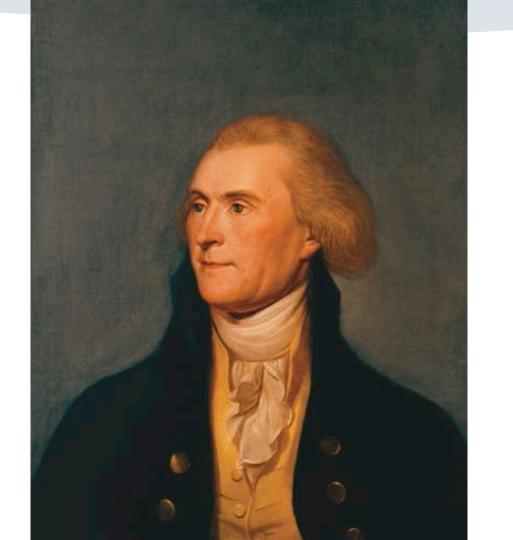




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### Our roots flow into DevOps

## The imperative

# You are either building a learning organization...

# Or you will be losing to someone who is ...

Andrew Shafer Velocity 2013



## Three experiences



## Sending people out

## Exploring upstream



## Bringing people in



DevOpsDays DC

## Seven questions

### ... technical debt?

## ... complexity?

### ... unlearn?





#### Teaching the internal postmortem facilitation course at Etsy again. :)











### ... other domains?

... imagination ...?

### ... continual improvement?

## ... positive influence?

# Your answers to these questions

How are you handling technical debt?

How are you making sense of complexity?

What do you need to unlearn?

What can you learn from other domains?

Is imagination causing problems?

How can learning and teaching be continually improved?

How do you positively influence the lives of your IT people?



### Top Five Takeaways

- 1. Becoming a learning organization is imperative
- 2. Questions can be more valuable than prescriptions
- Some old ideas must be unlearned
- 4. Learning and teaching require continual improvement
- 5. "Generosity of Spirit" will nurture growth in individuals, your team, and the community

# Here's what I'm looking for help with ...

measuring cultural change



## **Appendix**

#### References

Andrew Shafer "There is No Talent Shortage" Velocity Conference New York 2013 <a href="https://www.youtube.com/watch?v=P\_sWGI7MzhU">https://www.youtube.com/watch?v=P\_sWGI7MzhU</a>

Daniel Schauenberg "Open Source Spring Cleaning" (see comments on Etsy & "Generosity of Spirit") <a href="https://codeascraft.com/2015/07/09/open-source-spring-cleaning/">https://codeascraft.com/2015/07/09/open-source-spring-cleaning/</a>

DevOpsDays DC

http://www.devopsdays.org/events/2015-washington-dc/



#### References for the seven questions

#### 1. How are you handling technical debt?

Ticketmaster technology blog <a href="http://tech.ticketmaster.com/2015/06/30/what-ticketmaster-is-doing-about-technical-debt/">http://tech.ticketmaster.com/2015/06/30/what-ticketmaster-is-doing-about-technical-debt/</a>

DevOps Audit Defense Toolkit (note the use of the technical debt backlog as part of the control environment)

https://docs.google.com/document/d/1yGSBeKkqhavqk1I21f8UtJBWxDY\_Q28nl3SEtcWNFPU/edit?pli=1#heading=h.n z04hx4gzeuw

#### 2. How are you making sense of complexity?

Dave Snowden <a href="http://cognitive-edge.com/blog/some-thinking-about-decisions/">http://cognitive-edge.com/blog/some-thinking-about-decisions/</a>

Richard I. Cook <a href="http://web.mit.edu/2.75/resources/random/How%20Complex%20Systems%20Fail.pdf">http://web.mit.edu/2.75/resources/random/How%20Complex%20Systems%20Fail.pdf</a>

#### 3. What do you need to unlearn?

John Allspaw <a href="http://www.kitchensoap.com/2013/09/30/learning-from-failure-at-etsy/">http://www.kitchensoap.com/2013/09/30/learning-from-failure-at-etsy/</a>



#### References for the seven questions (continued)

#### 4. What can you learn from other domains?

Wildland Fire Leadership <a href="http://wildlandfireleadership.blogspot.com/2014/08/swiss-cheese-model-scm-and-margin.html">http://wildlandfireleadership.blogspot.com/2014/08/swiss-cheese-model-scm-and-margin.html</a>

Wildland Fire Leadership <a href="http://www.fireleadership.gov/toolbox/after-action-review/format.html">http://www.fireleadership.gov/toolbox/after-action-review/format.html</a>

EUROCONTROL <a href="http://www.skybrary.aero/index.php/Toolkit:Systems">http://www.skybrary.aero/index.php/Toolkit:Systems</a> Thinking for Safety: Ten Principles

EUROCONTROL (Systems Thinking Learning Cards: Moving towards Safety-II)

https://dl.dropboxusercontent.com/u/4953549/systems%20thinking%20for%20safety%20cards%2020141104%20print.pdf

**5. Is imagination causing problems?** (How can you close the gap between work as done vs. work as imagined?)

Erik Hollnagel <a href="http://www.functionalresonance.com/FRAM-1\_understanding\_accidents.pdf">http://www.functionalresonance.com/FRAM-1\_understanding\_accidents.pdf</a> & <a href="http://www.skybrary.aero/bookshelf/books/2437.pdf">http://www.skybrary.aero/bookshelf/books/2437.pdf</a>

Lindsay Holmwood <a href="http://fractio.nl/2014/10/03/why-do-you-want-to-lead-people/">http://fractio.nl/2014/10/03/why-do-you-want-to-lead-people/</a> (see "The influence trap" section)



#### References for the seven questions (continued)

6. How can learning and teaching be continually improved?

Andrew Shafer <a href="http://www.slideshare.net/littleidea/how-did-your-organizational-learning-game-come-up-velocity-2014">http://www.slideshare.net/littleidea/how-did-your-organizational-learning-game-come-up-velocity-2014</a>

Kevin Behr <a href="http://www.kevinbehr.com/kevins-blog/one-way-information-hoarding-blocks-flow-and-makes-us-slow1">http://www.kevinbehr.com/kevins-blog/one-way-information-hoarding-blocks-flow-and-makes-us-slow1</a>

7. How do you positively influence the lives of your IT people?

IT Revolution Manifesto <a href="http://itrevolution.com/manifesto/">http://itrevolution.com/manifesto/</a>



#### Photos & Images

https://commons.wikimedia.org/wiki/File:James Madison, by Charles Willson Peale, 1783.png

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whocode 025 - Steven Schatz

https://commons.wikimedia.org/wiki/File:The Red Canoe Winslow Homer 1889.jpeg

https://twitter.com/allspaw/status/590199339194175488 - John Allspaw



### Excerpts from Konosuke Matsushita's comments on the impact of Frederick Winslow Taylor's "scientific management" principles on manufacturing.

"Your companies are based on Taylor's principles. Worse, your heads are Taylorized too ...

We have passed the Taylor stage. We are aware that business has become terribly complex. Survival is very uncertain in an environment increasingly filled with risk, the unexpected, and competition. Therefore, a company must have the constant commitment of the minds of all of its employees to survive. For us, management is the entire work force's intellectual commitment at the service of the company ... without self-imposed functional or class barriers ...

We know that the intelligence of a few technocrats - even very bright ones - has become totally inadequate to face these challenges. Only the intellects of all employees can permit a company to live with the ups and downs and the requirements of its new environment. Yes, we will win and you will lose. For you are not able to rid your minds of the obsolete Taylorisms that we never had."

Matsushita, Konosuke (1988) 'A secret is shared', Manufacturing Engineering, 100(2), February, p.15.



