AKADEMIA J-LABS

Devops 101:
Co powinieneś wiedzieć na temat DevOps?

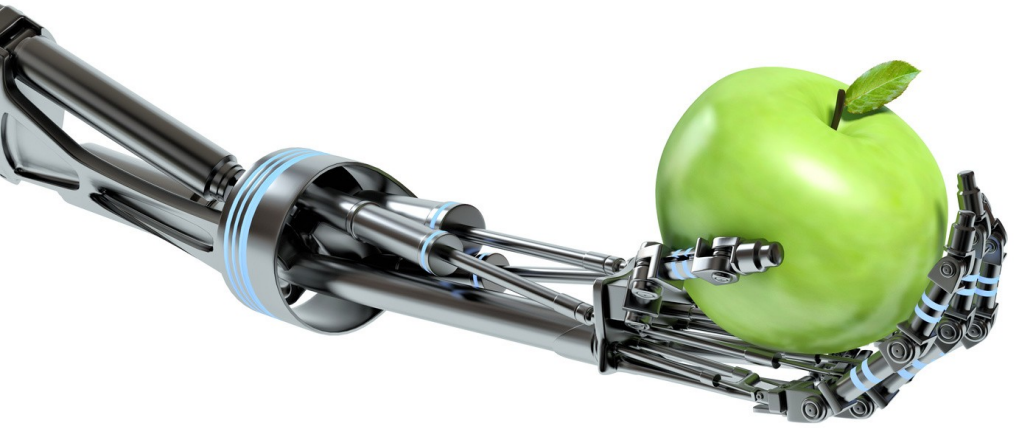
Maciej Lasyk

2016-01-12

Join Fedora Infrastructure!

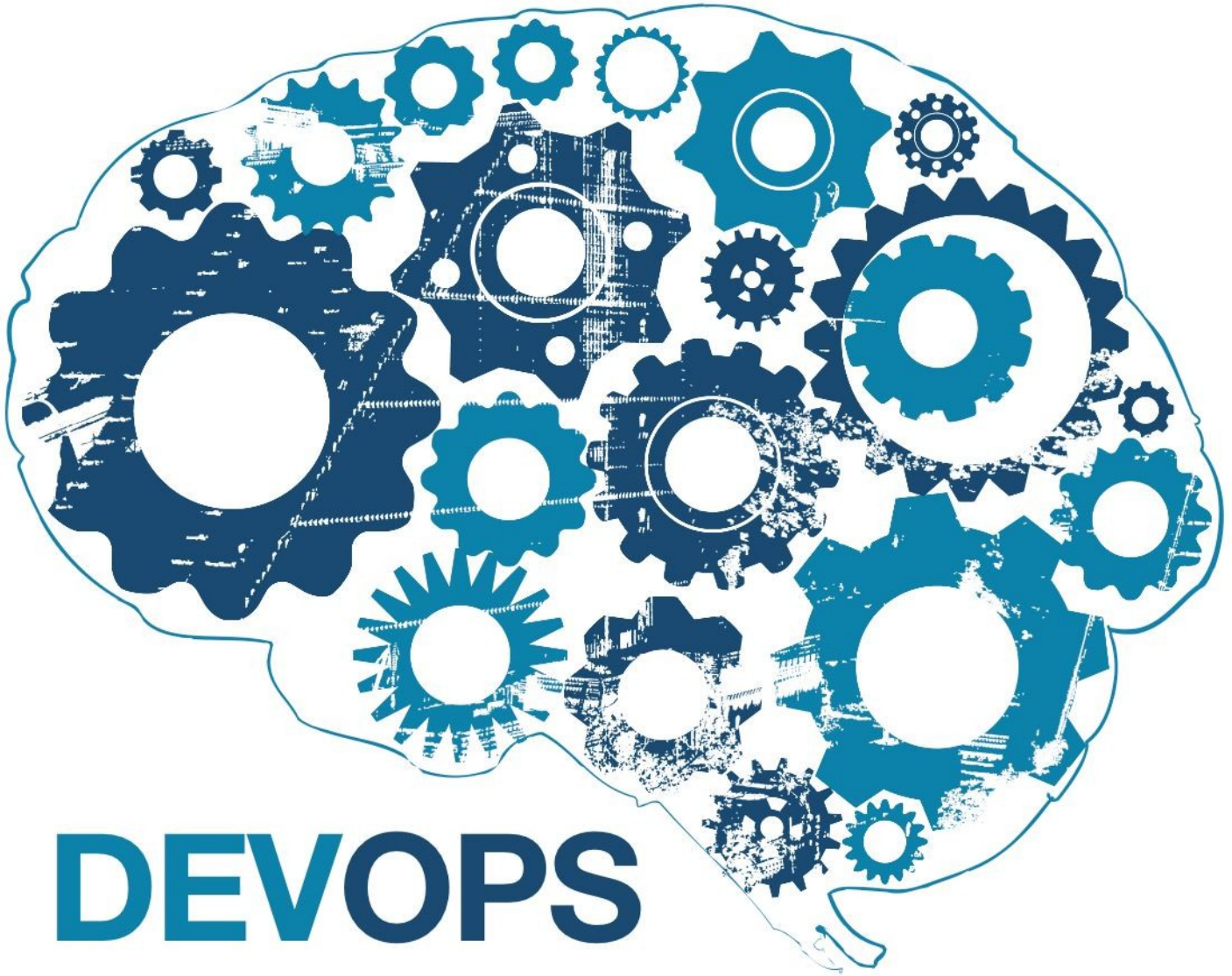
- learn Ansible
- learn howto devops

http://fedoraproject.org/en/join-fedora



ocado
TECHNOLOGY

www.ocadotechnology.com/join-us


DEVOPS

Sad Operator
@sadoperator

Following

DevOps is about giving devs the ability to shoot Ops in the foot.

RETWEETS	LIKES
85	76

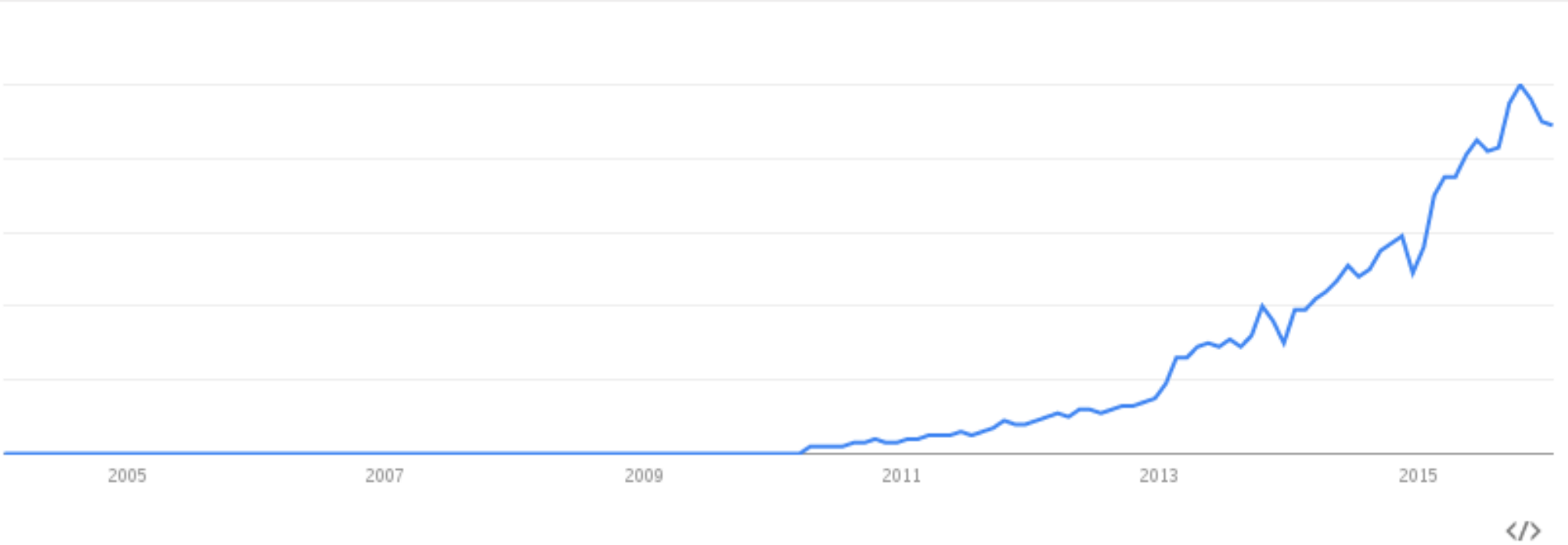
1:16 AM - 8 Jan 2016

devops
Search term

+ Add term

Interest over time

News headlines forecast



Agile Manifesto

→ Individuals and interactions over processes and tools

→ Working software over comprehensive documentation

→ Customer collaboration over contract negotiation

→ Responding to change over following a plan

Programming, Motherfucker

Do you speak it?

We are a community of motherfucking programmers who have been **humiliated** by software development methodologies for years.

We are tired of *XP*, *Scrum*, *Kanban*, *Waterfall*, *Software Craftsmanship* (aka *XP-Lite*) and anything else getting in the way of...**Programming, Motherfucker**.

We are tired of being told we're autistic idiots who need to be manipulated to work in a Forced Pair Programming chain gang without any time to be creative because none of the 10 managers on the project can do... **Programming, Motherfucker**.

We must destroy these methodologies that get in the way of...**Programming, Motherfucker.**

Evolution: how we do software?

→ Monoliths

→ SOA

→ Microservices

Evolution: how we do software?

→ Monoliths

→ SOA

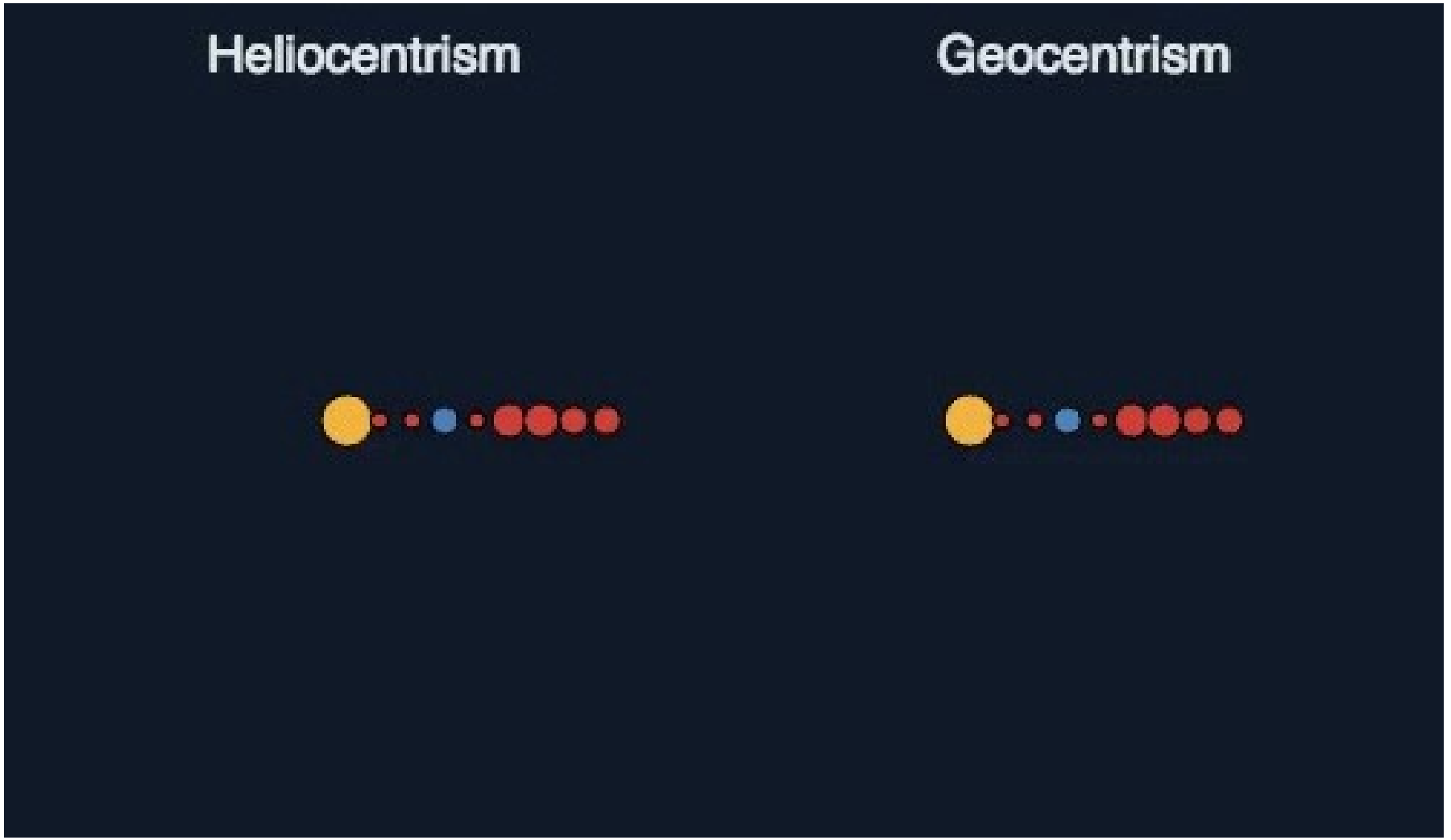
→ Microservices

Evolution: how we do software?

→ Monoliths

→ SOA

→ Microservices



https://de.reddit.com/r/space/comments/404vdc/heliocentrism_vs_geocentrism/

So wanna go microservices…?

There's a trap :)

Conway's law (1968)

organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations

http://en.wikipedia.org/wiki/Conway%27s_law

Ruth Malan (2008)

if the architecture of the system and the architecture of the organization are at odds, the architecture of the organization wins.

The organizational divides are going to drive the true seams in the system.

http://traceinthesand.com/blog/2008/02/13/conways-law/

Cross – functional, self – organizing teams?

Assign it to me

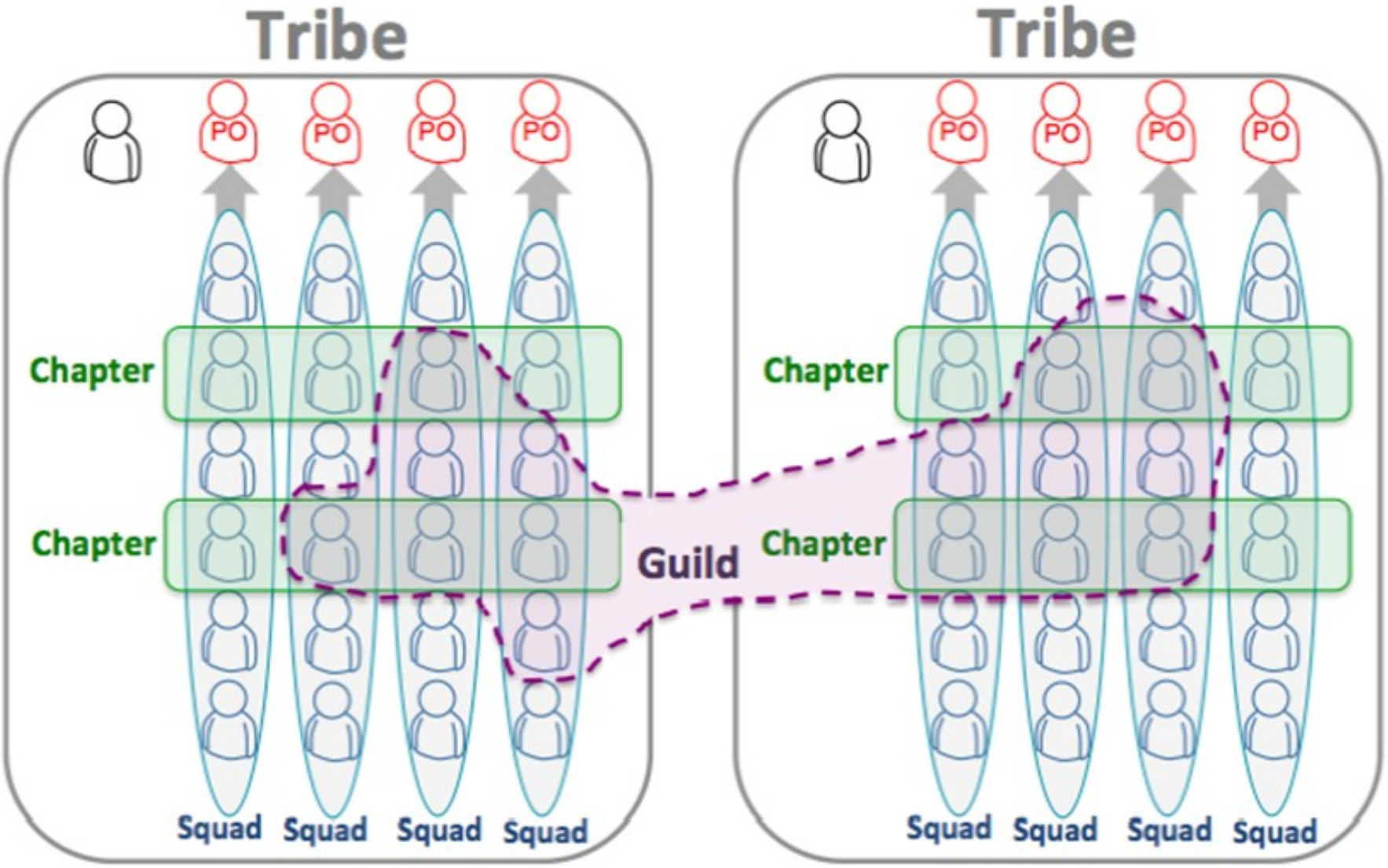
http://devopsreactions.tumblr.com/post/129700187579/assign-it-to-me

Scaling Agile @ Spotify

with Tribes, Squads, Chapters & Guilds

Henrik Kniberg & Anders Ivarsson

Oct 2012

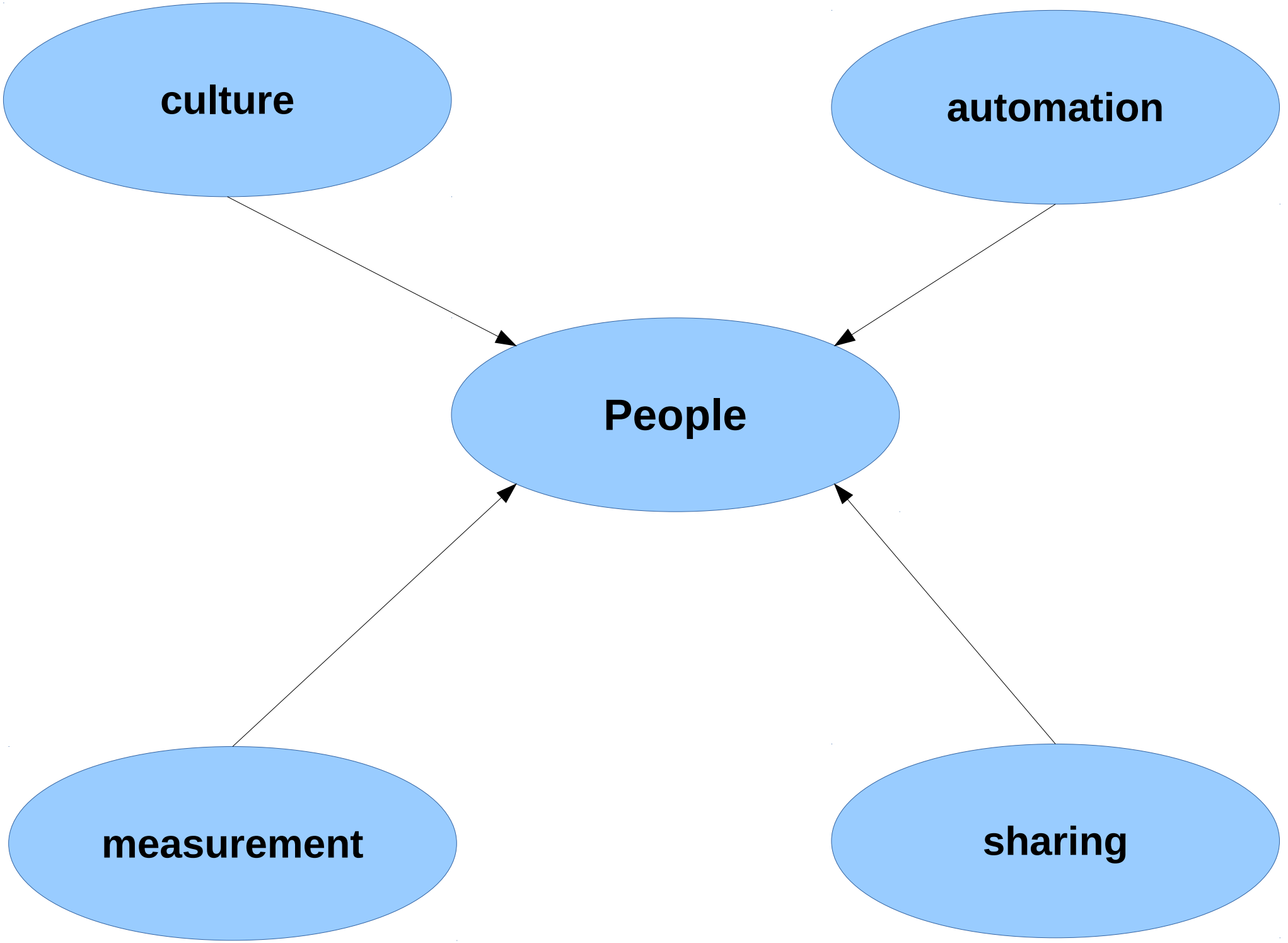


DevOPS ?== CAMS

(culture, automation, measurement, sharing)

DevOPS !== CAMS

DevOPS === people!


culture
automation
People
measurement
sharing

Dead sea effect

→ most talented evaporates

→ the residue

→ maintenance experts & bus factor == 1

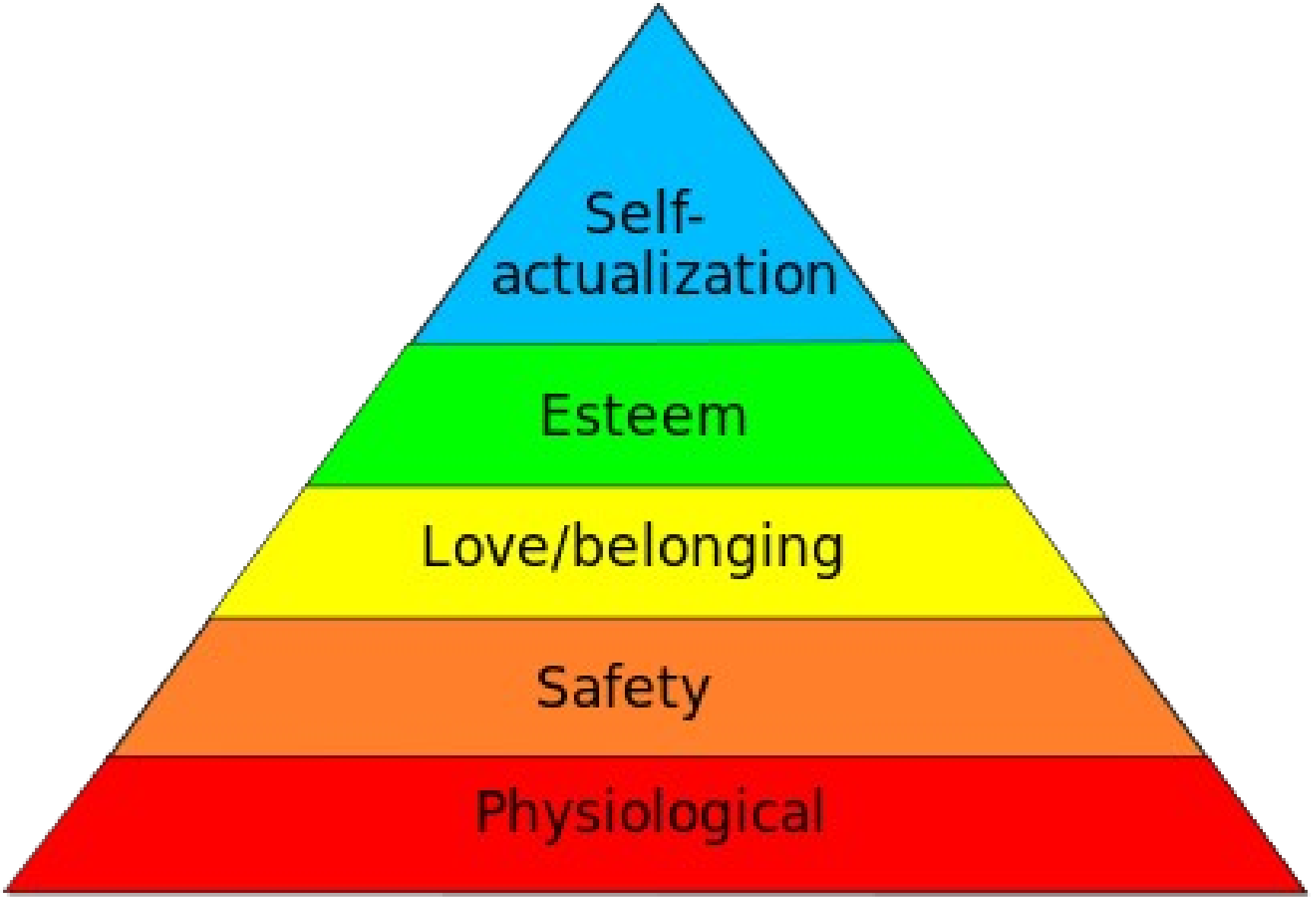
http://brucefwebster.com/2008/04/11/the-wetware-crisis-the-dead-sea-effect/

Senior’s reaction when asked to stay late

Dead sea effect

there is a solution...

Maslow's hierarchy of needs



Maslow's hierarchy of needs: physiological

Let's say that until it's North Korea than it's ok ;)

Maslow's hierarchy of needs: safety

→ family

→ $$$

→ job security

Maslow's hierarchy of needs: <3 and belonging

→ friendship?

→ is your team your family?

→ do you find yourself in your company?

Maslow's hierarchy of needs: Esteem

→ are you respected?

→ do u need the fame and glory?

→ what about your recognition?

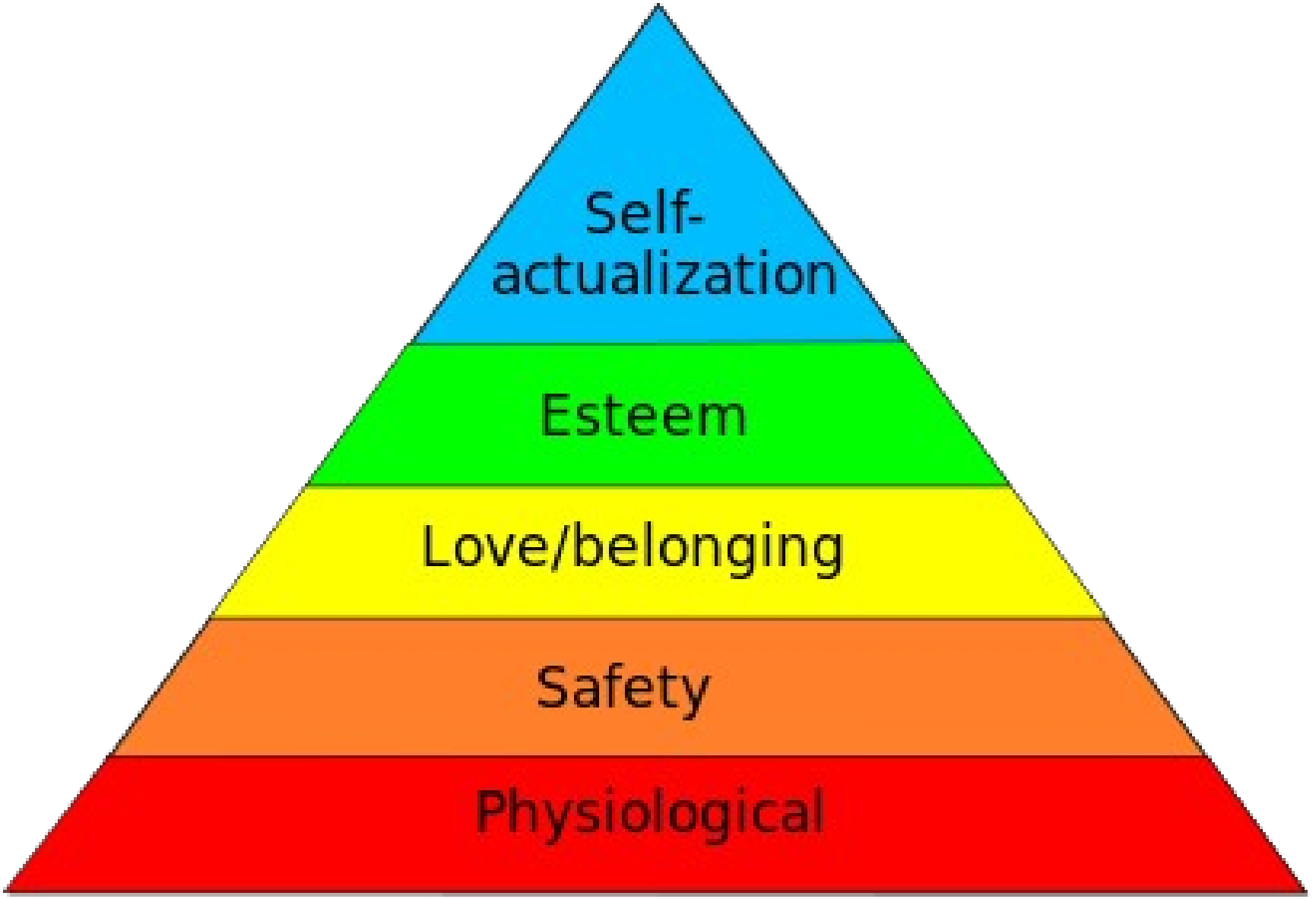
Maslow's hierarchy of needs: self - actualization

→ is your job aligned w/ur interests?

→ do u feel fulfilled?

→ do you find time for self – development?

Maslow's hierarchy of needs



How do you keep good people in company?

people don't leave companies; they leave leaders

How do you keep good people in company?

people don't leave companies; they leave leaders

or just one of the most popular reasons...

most popular reasons.. to leave your company

→ Frustration with the inversion of meritocracy (“organization stupidities”)

→ Simple boredom

→ Perception that current project is futile/destined for failure accompanied by organizational powerlessness to stop it

→ Lack of a mentor or anyone from whom much learning was possible

→ Promotions a matter of time rather than merit

→ No obvious path to advancement

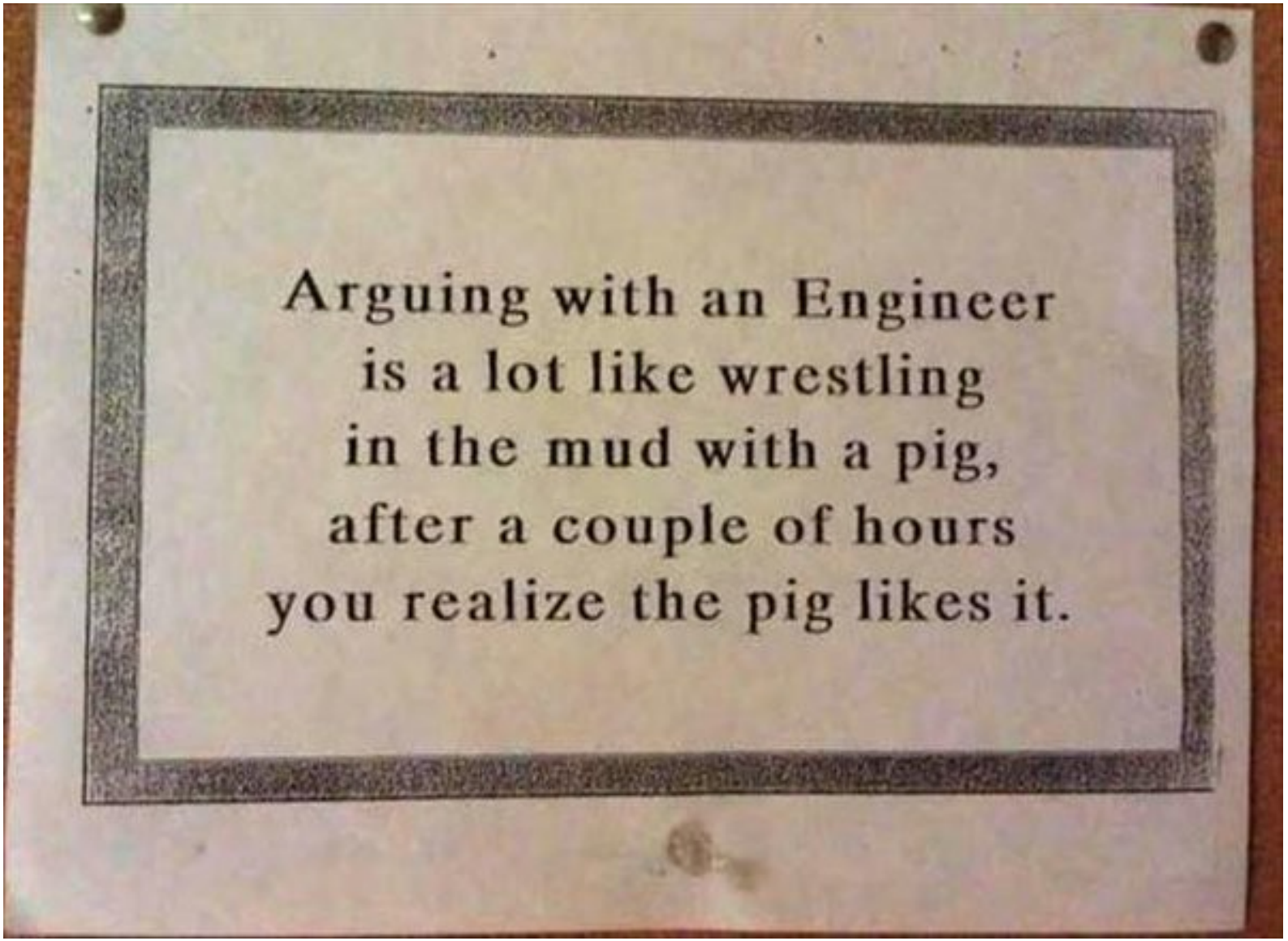
→ Fear of being pigeon-holed into unmarketable technology

→ Red-tape organizational bureaucracy mutes positive impact that anyone can have

→ Lack of creative freedom and creative control (aka “micromanaging”)

http://www.daedtech.com/how-to-keep-your-best-programmers

Communication

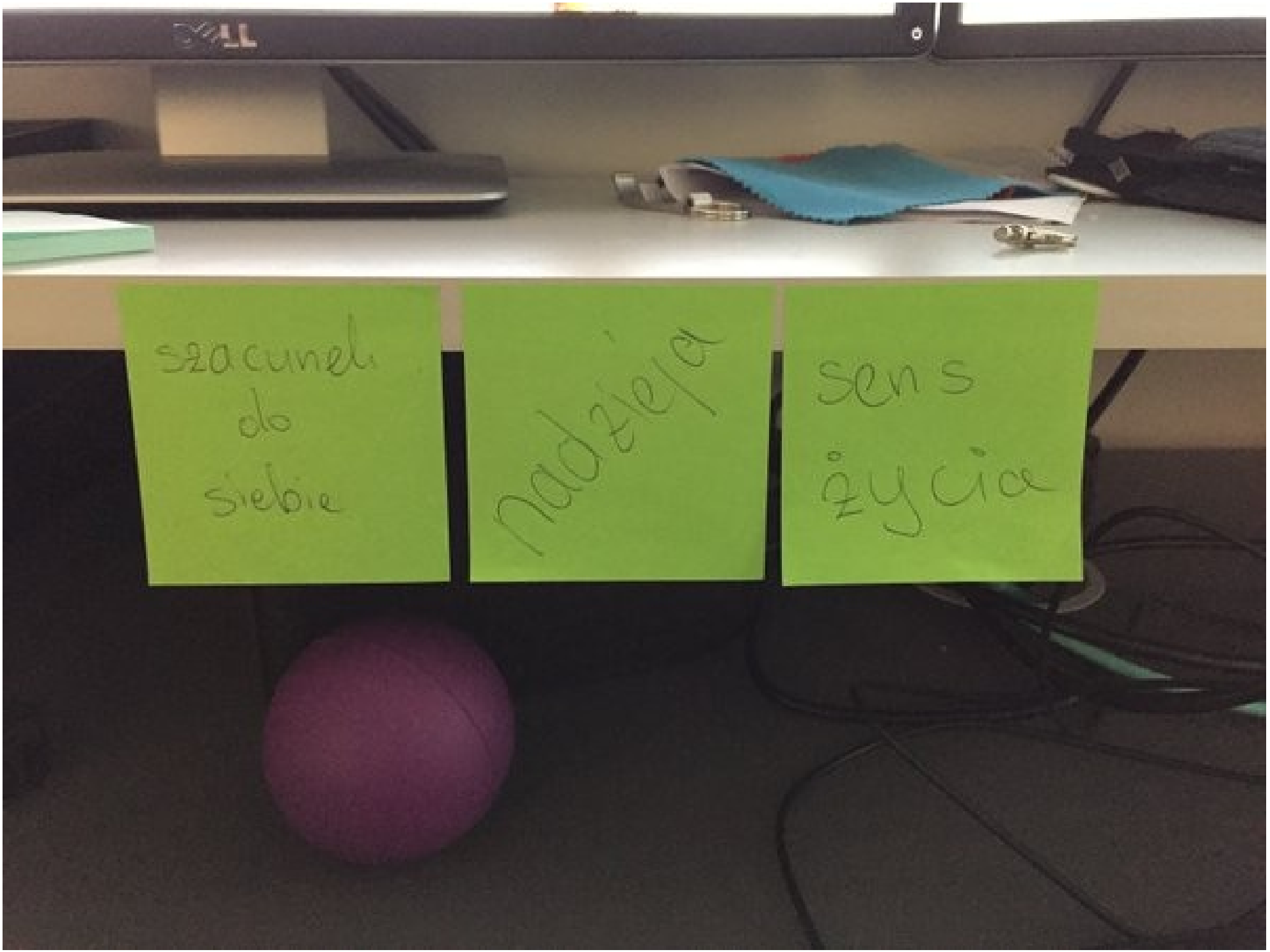


Communication

→ paraphrase

→ listening, hearing, understanding

→ sarcasm is a passive agression

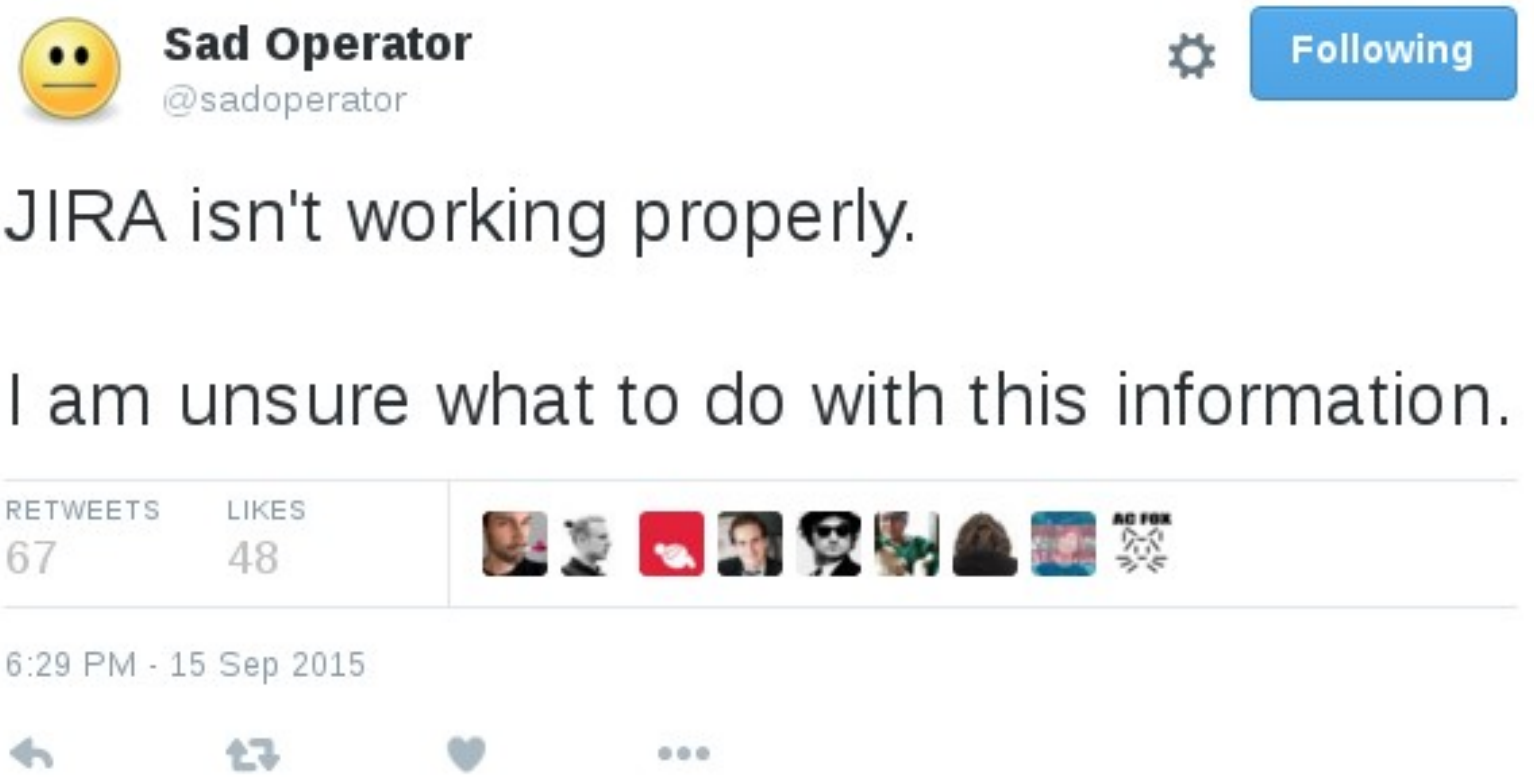

szacunek do siebie
nadzieja
sens życia

Areas of responsibilities?

Communication patterns?

Areas of responsibilities?

Communication patterns?

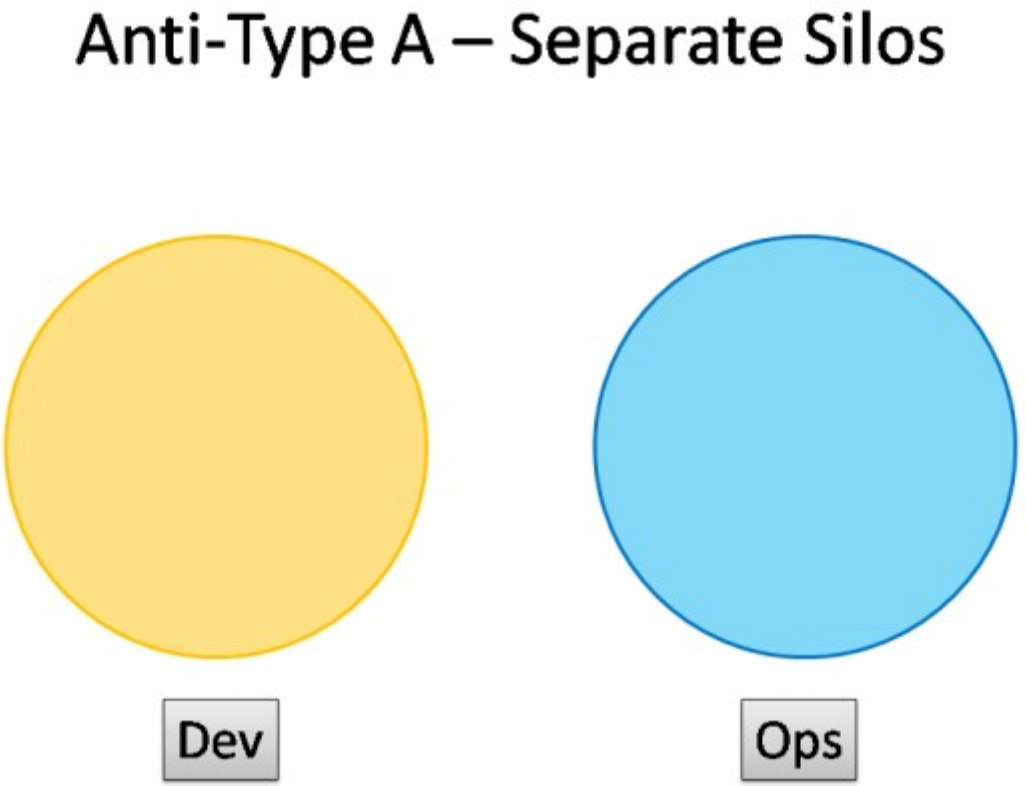


DevOps Anti-Types & patterns

This is a copy/paste from http://blog.matthewskelton.net/ w/my comments included

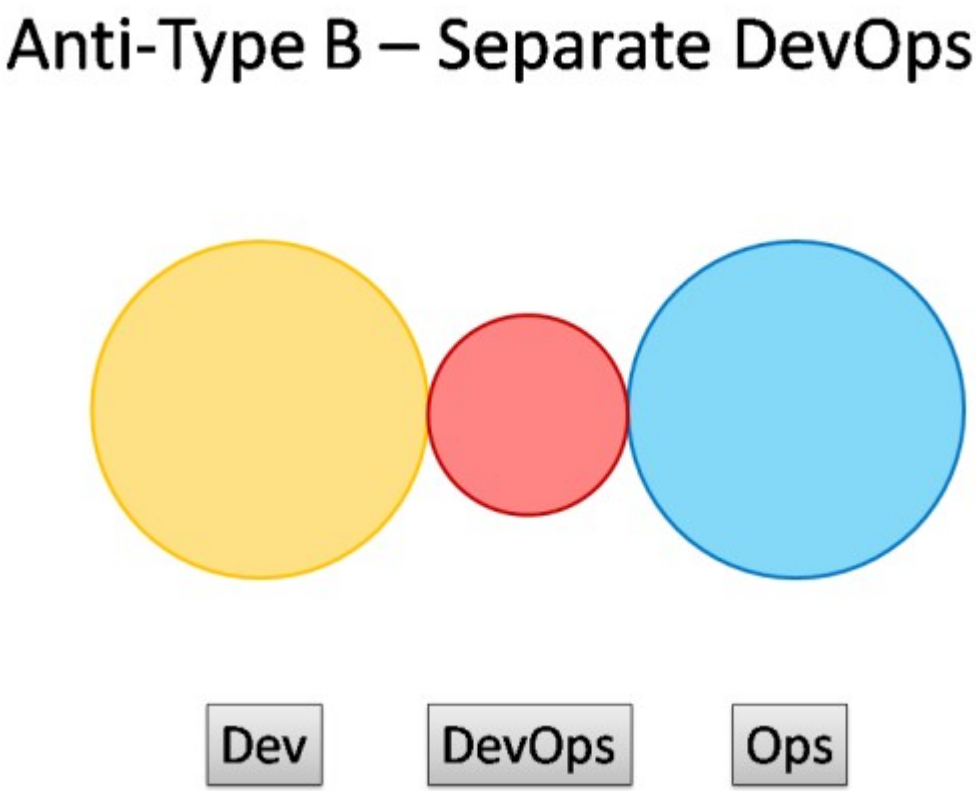
Great job Matthew! Thanks!

DevOps Anti-Types



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

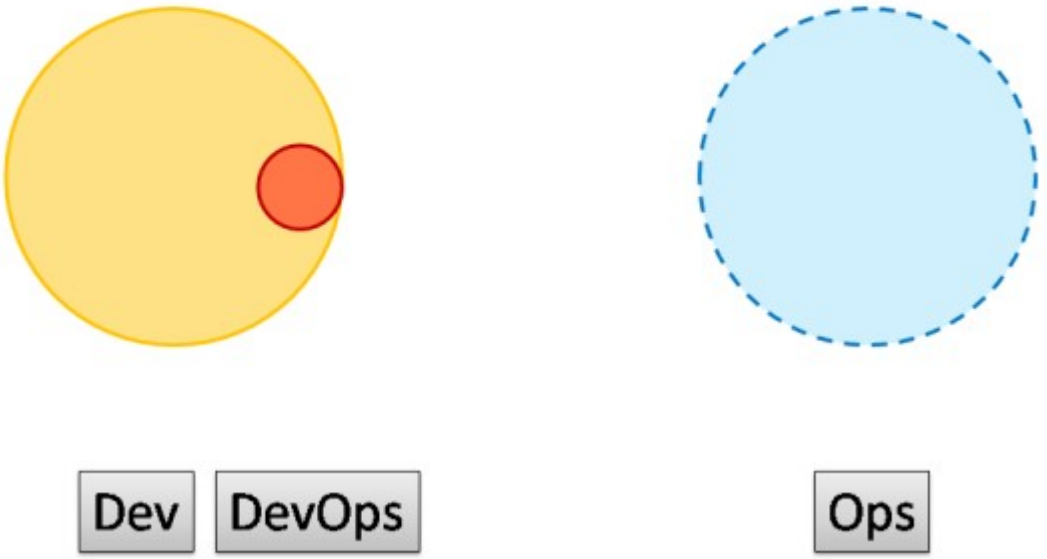
DevOps Anti-Types



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

DevOps Anti-Types

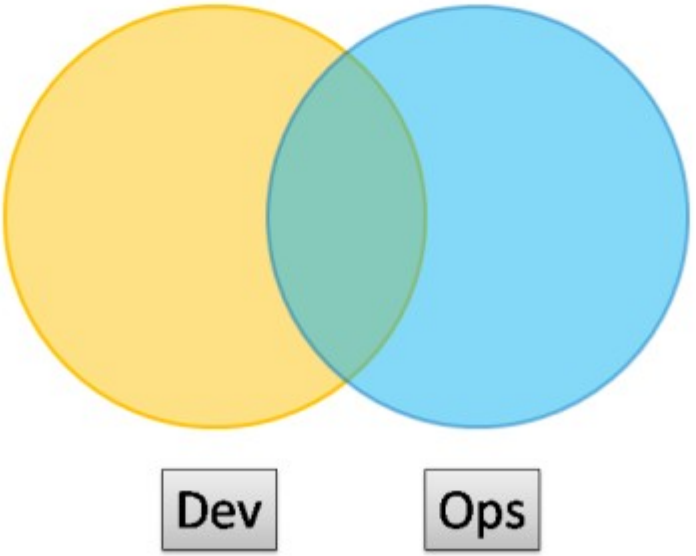
Anti-Type C – “We Don’t Need Ops”



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

DevOps Patterns

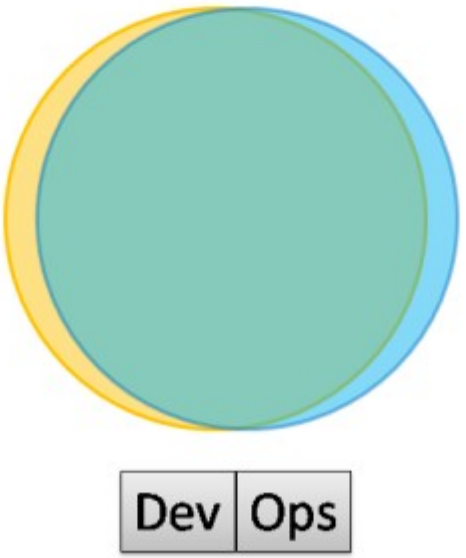
Type 1 – Smooth Collaboration



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

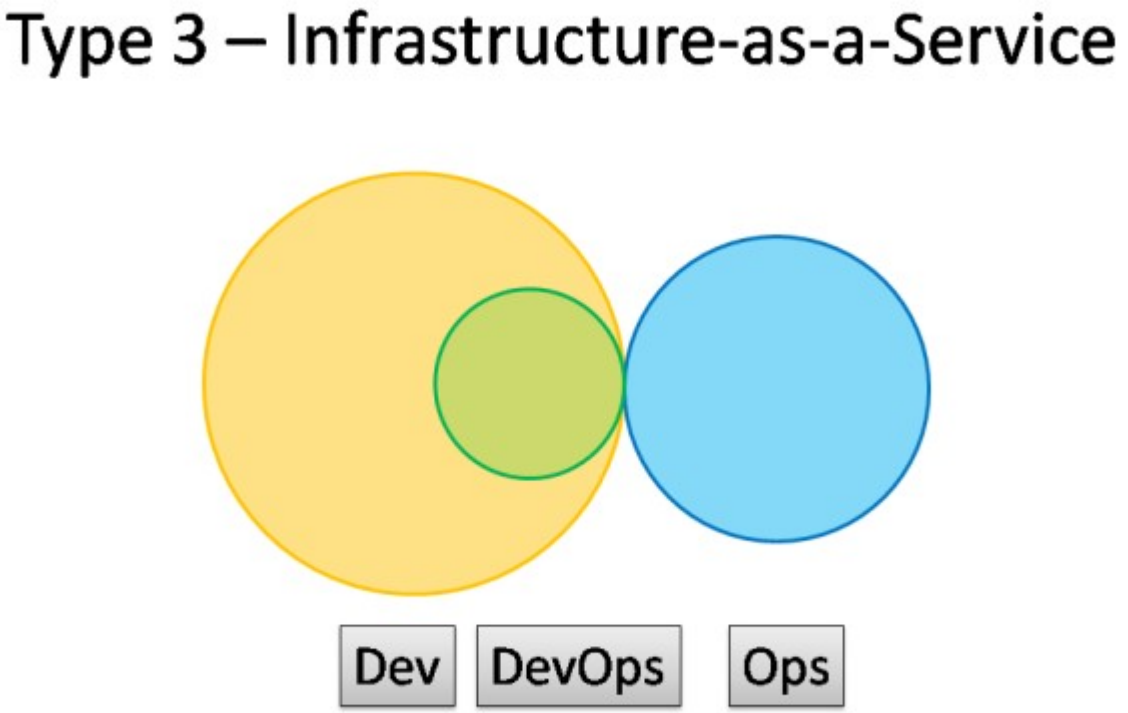
DevOps Patterns

Type 2 – Fully Embedded



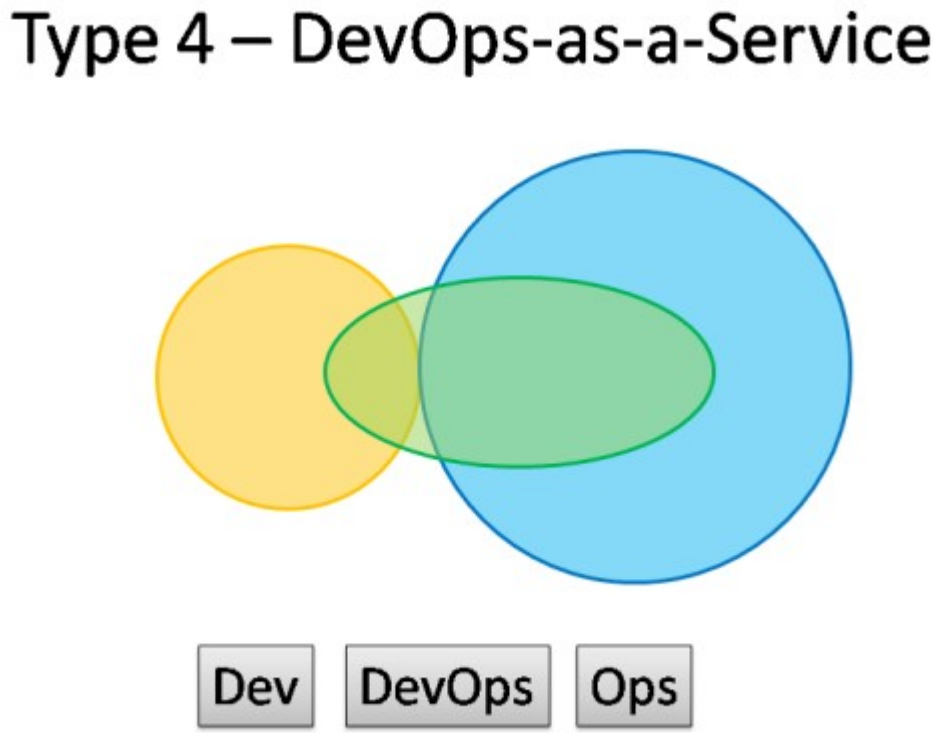
http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

DevOps Patterns



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

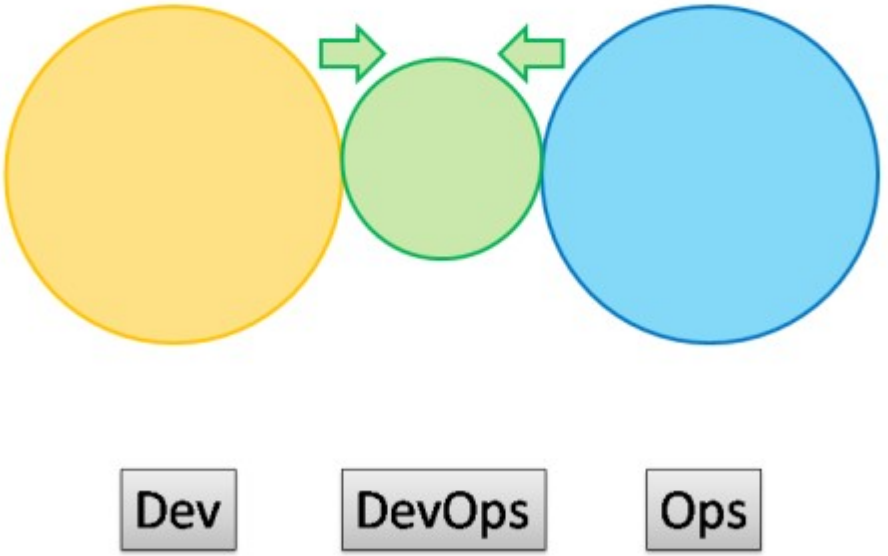
DevOps Patterns



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

DevOps Patterns

Type 5 – Temporary DevOps Team



http://blog.matthewskelton.net/2013/10/22/what-team-structure-is-right-for-devops-to-flourish/

Devops myths

Devops myths

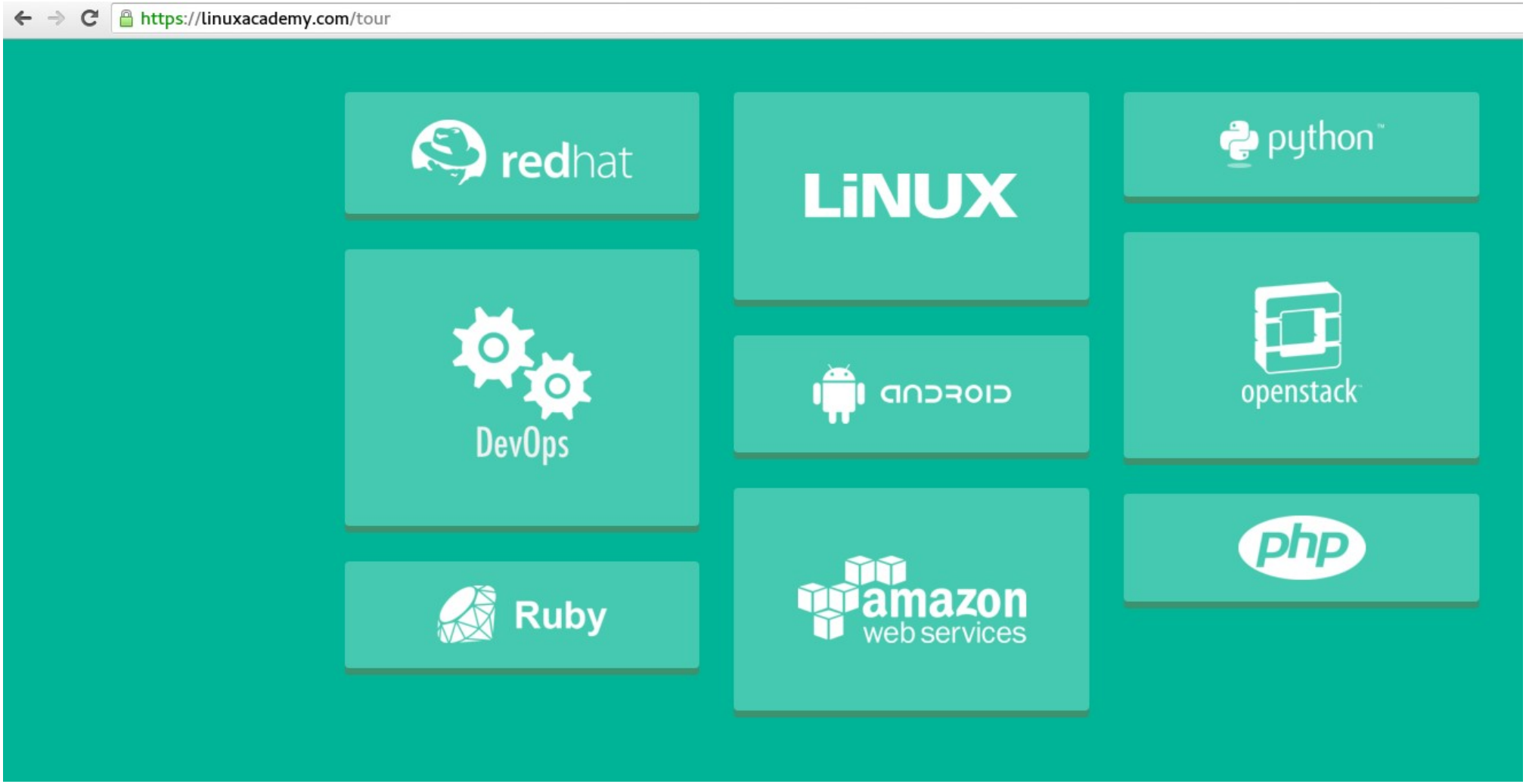
You can hire Devops to fix your organisation

Devops myths

Hire Devops to fix monitoring, automation, configuration etc

Devops myths

You can certify yourself in Devops


https://linuxacademy.com/tour
redhat
LiNUX
python
DevOps
android
openstack
Ruby
amazon
web services
php

Devops myths

Devops is all about tools

Devops myths

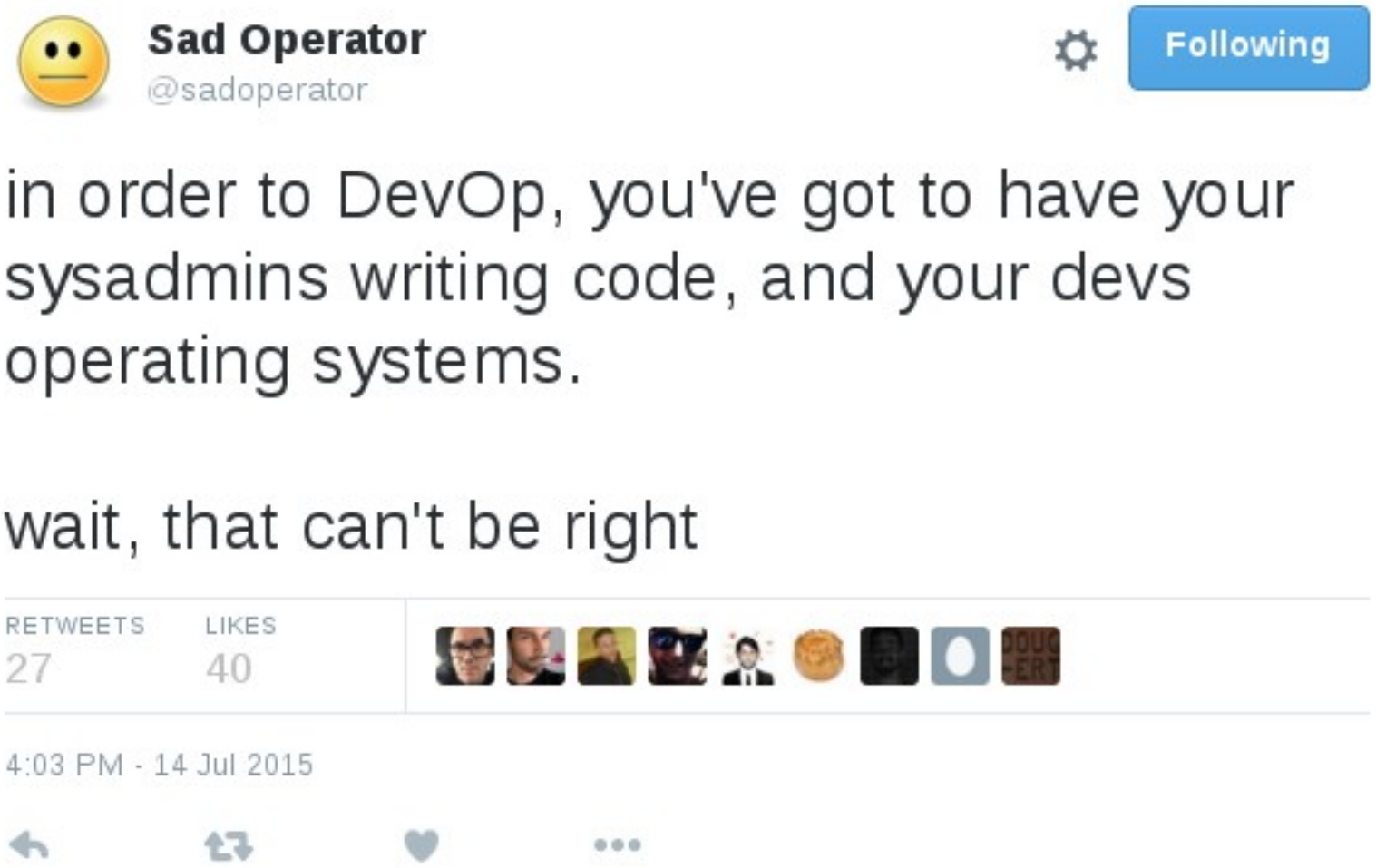
Devops is all about tools

Yup – about “tools” working in company ;)

Devops myths

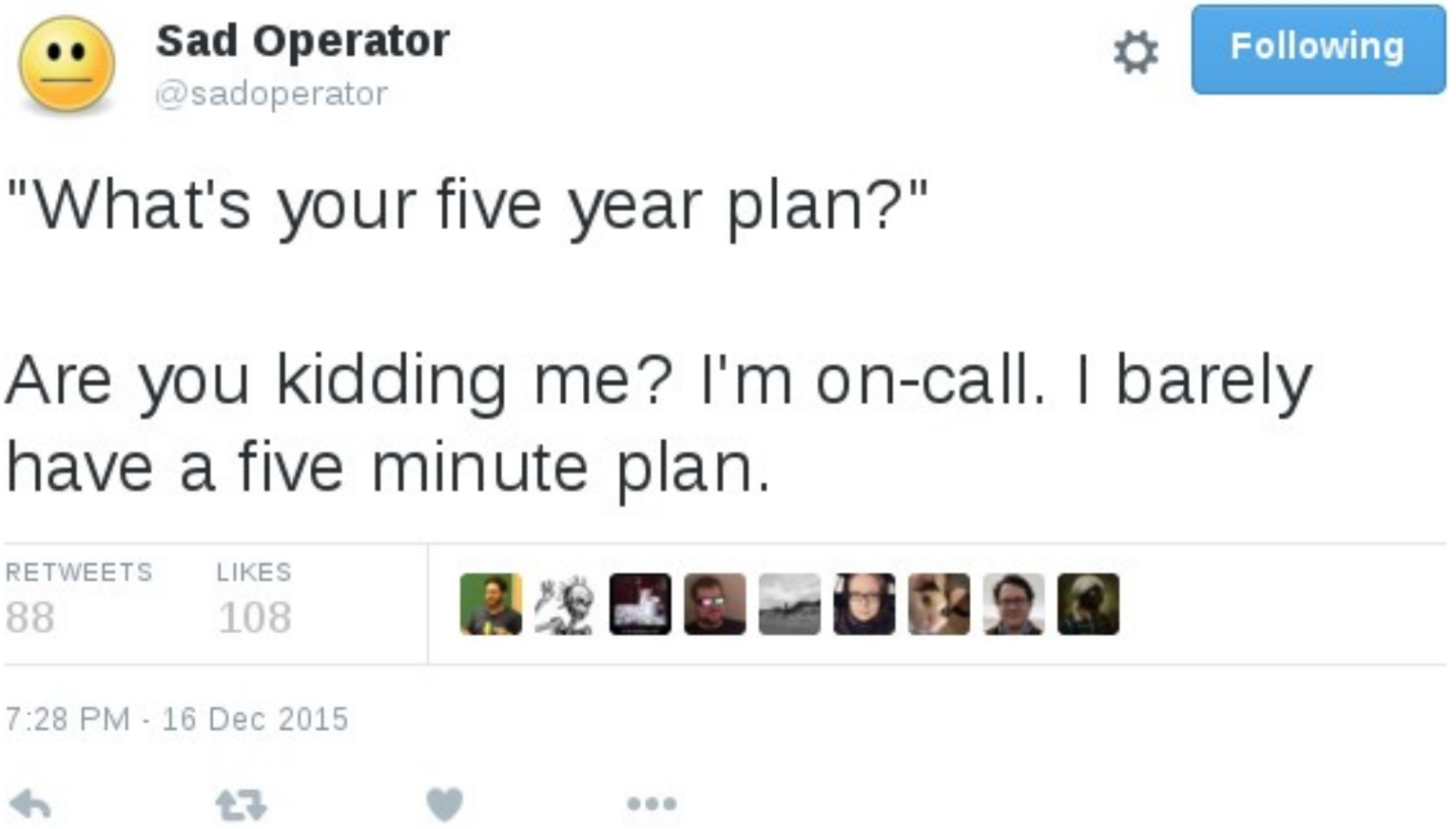
Devops is only about engineering

Devops 101: chaos

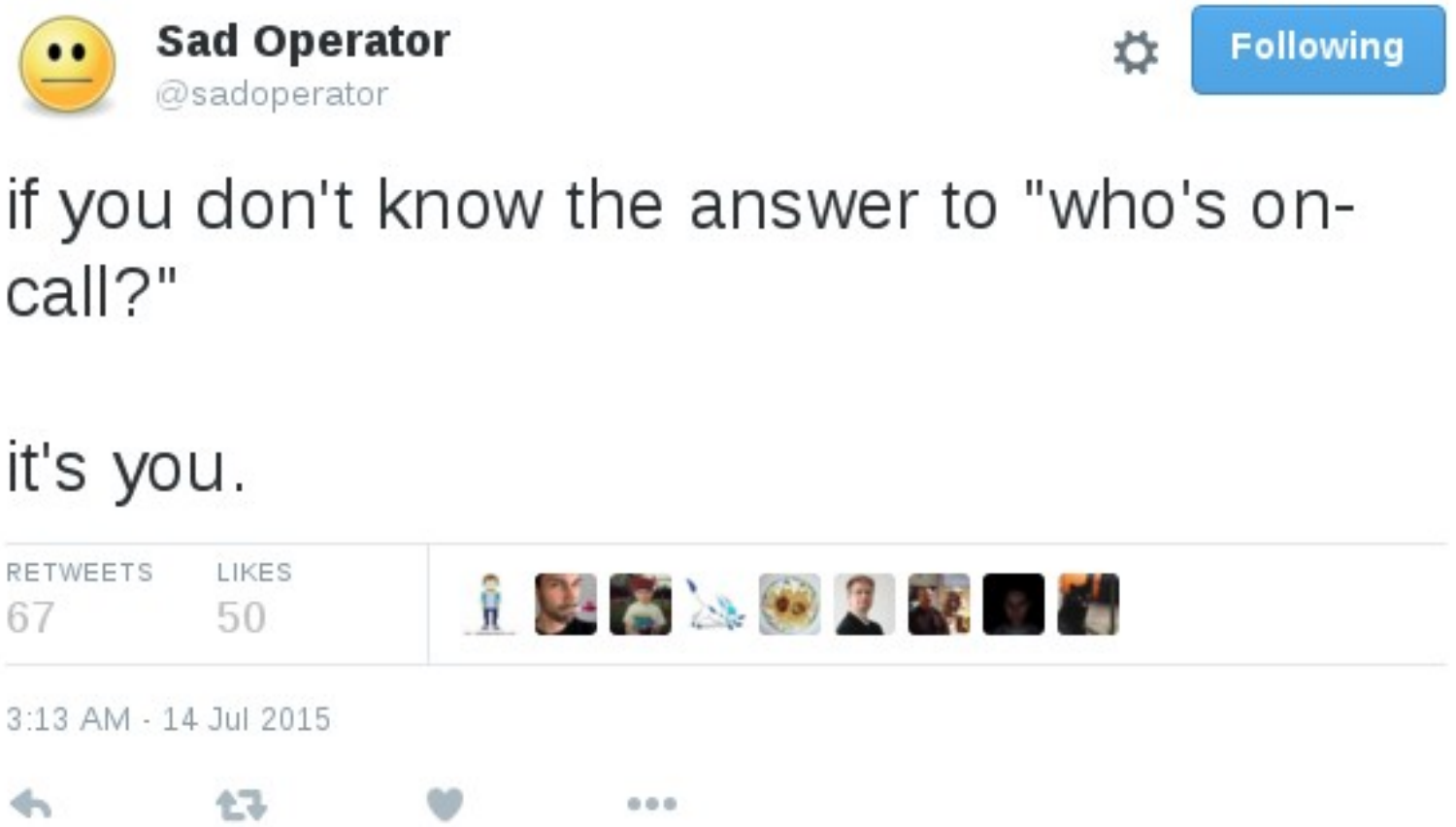


Devops 101: have clever monitoring

Devops 101: smart oncall



Devops 101: smart oncall



Friday deployments (…and leaving afterwards)

Receiving a call after a long day

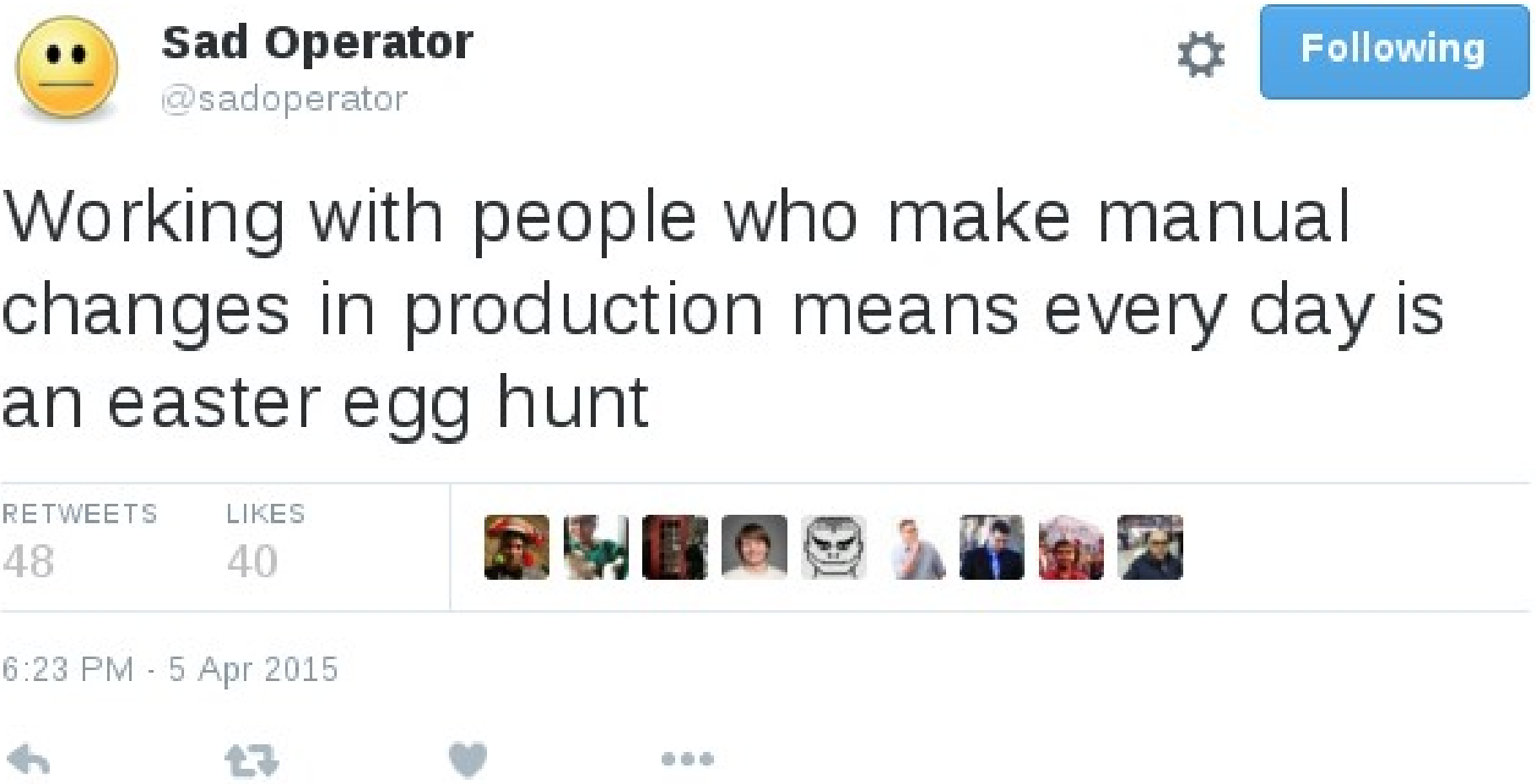
Devops 101: automate

→ whatever (smart) tools

→ don't reinvent the wheel!

→ test it (approach) during recruitment

Devops 101: automate



Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Cutting over to new service provider

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: production

→ A/B testing

→ Canary Releases

→ Feature toggles

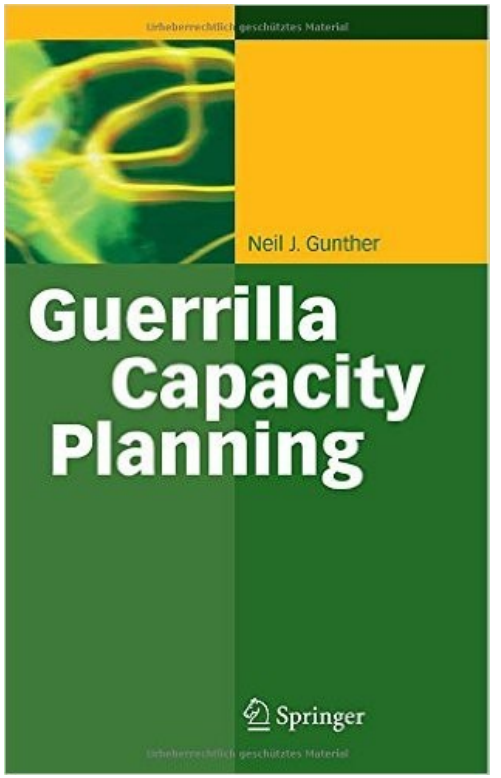
→ blue / green deployments

→ Chaos Monkey

→ Immutable servers

→ Stress testing

Devops 101: circuit breakers



Devops 101: wandering experts

Devops 101: Legacy?

Devops 101: Legacy?

Try Mikado Method

Devops 101: Experiment!

Devops 101: Experiment!

→ Docker
→ systemd-nspawn
→ LX-branded zones
→ runc
→ LXC
→ LXD
→ LMCTFY

...?

Materials

http://devopschecklist.com/
http://www.devopsweekly.com
https://github.com/kilimchoi/engineering-blogs

Books:
→ Phoenix Project
→ Continuous Delivery
→ Continuous Integration
→ Zrozumieć Programowanie :)

https://puppetlabs.com/presentations/why-everything-just-worst

Tools

https://dzone.com/storage/temp/812531-xebialabs-periodic-table-of-devops.png

http://devops.com/business-directory/

https://github.com/charleskorn/devops-101

http://theremotelab.io/blog/updates_about_devops_world/

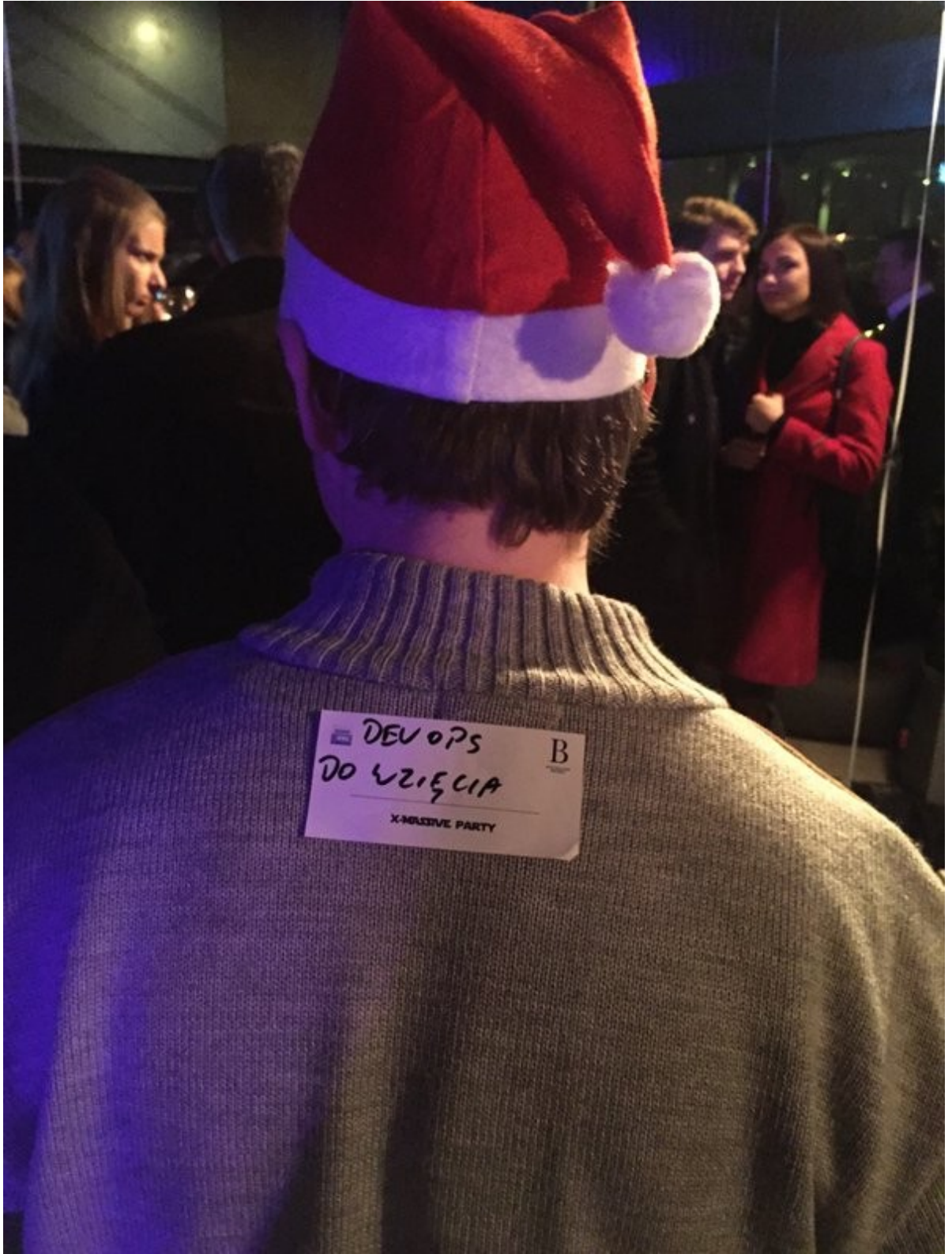
Devops events?

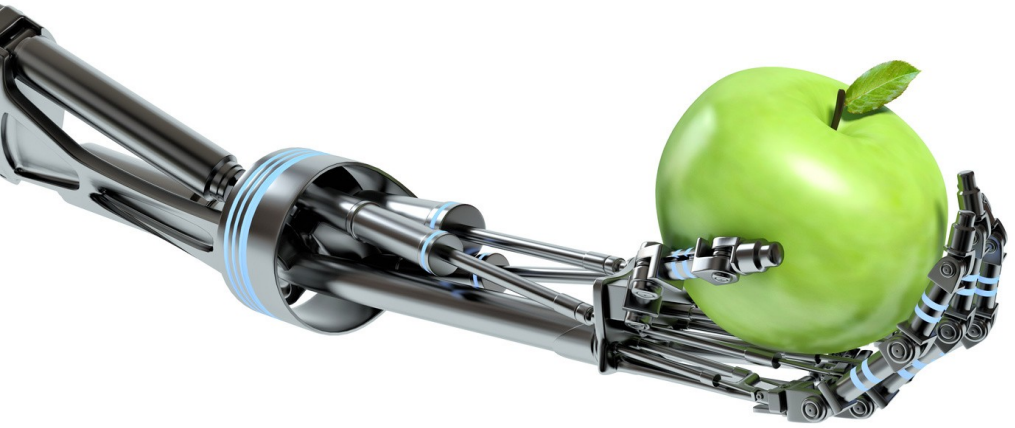
→ #KrkDevops meetups

→ Devops days

→ Atmosphere Conference

→ Velocity Conference


DEV OPS
DO WZIĘCIA
X-MASSIVE PARTY



ocado
TECHNOLOGY

www.ocadotechnology.com/join-us

AKADEMIA J-LABS

Devops 101:
Co powinieneś wiedzieć
na temat DevOps?

Maciej Lasyk

2016-01-12