

2014 International Workshop on **Release Engineering**



Bram Adams **Stephany Bellomo** **Chris Bird** **Boris Debić** **Àkos Frohner** **Foutse Khomh** **Kim Moir**

Google

Google

Thanks,



Boris

&



Ákos

!

FOSDEM'14





1309

FOSDEM'14

dock

a puppet

Sorry, we're

FULL

All seats are taken.

Please **DO NOT ENTER** as room capacity may
not be exceeded due to security reasons.

DEM'14



uration
management

H.1309 (Van Rijn)

Configuration management

saturday - H.1309 Van Rijn

Saturday

Configuration Management 101	Sean O'Meara
Use case: Configuration Management in an enterprise Linux Team <i>--How I automated myself out of my job--</i>	Remi Bergsma
ncf <i>abstracting CFEngine's complexity to provide a structured and powerful framework</i>	Jonathan Clarke
Deploying Cloudstack with Chef	Michael Ducy
Introduction to Docker <i>Containerization is the new virtualization</i>	James Turnbull
A metadata ocean in Puppet and Chef <i>How to cope with metadata organisation</i>	Marc Cluet
SaltStack <i>Configuration Management Meets Remote Execution</i>	Corey Quinn
Razor - Provision like a Boss	David Lutterkort
Foreman integration with Chef (and others)	Marek Hulán
Manageable Puppet Infrastructure <i>Forging the pieces together</i>	Ger Apeldoorn
The classification problem: challenges and solutions <i>External node classification, the CFEngine way</i>	Marco Marongiu
NixOS: declarative configuration Linux distribution	Domen Kožar
Service orchestration in the cloud with Juju	Marco Ceppi

Saturday

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SUN

DEC
29TH

Continuous Delivery is Mainstream



Noah
Sussman

Google, Amazon and Facebook all are using very aggressive Continuous Delivery workflows and have been doing so for years.

UPDATED January 21, 2014

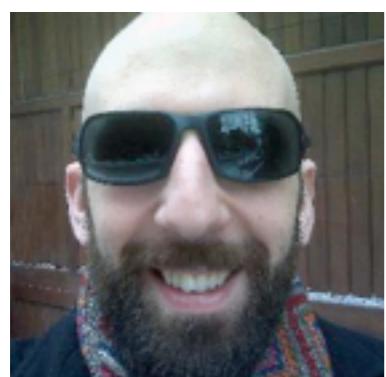
I meant the adjective “mainstream” in the sense of “not dangerous.” For example: “The Ramones are so mainstream, I only listen to Norwegian Death Metal.” Based on the large amount of feedback I have received, this is not everyone’s default definition of “mainstream.” Hopefully adding this paragraph to the post will clear up such ambiguity for future readers.

Once again, I did not mean to imply that everyone is doing CD. Everyone is not doing CD! But, CD is no longer the risky experiment it was in 2010 when Chad Dickerson hired me to help [scale the CI system at Etsy](#) (which is how I got involved in this whole discussion in the first place). Today CD is a mature option and I think it is the best option available. But there are certainly other ways to build software and lots of people use

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Continuous Delivery is Mainstream—So What's the Problem?

elizabethwoodward | Jan 5 | Comments (3) | Visits (2849) 



A new Infinite Undo blog article provides some great examples from Google, Amazon and Facebook that demonstrate that "[Continuous Delivery is mainstream](#)".

Core practices and techniques that support DevOps and continuous delivery have been around for years. Not only is continuous delivery possible, but surveys are demonstrating that there is significant value in embracing continuous delivery. The [2013 DevOps Survey](#) showed that high-performing organizations are delivering 30x more frequent releases than their peers and with much greater reliability—12x faster Mean Time to Recover (MTTR).

So What's the Problem?

For every successful organization engaging in continuous delivery, there are many, many others that are struggling. Difficulties include buy-in from management or other teams who do not understand the value, inability to work across silos and lack of tooling (lack of support). These are standard problems in the area of [leading change](#).

One Size Does not fit all

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is continuous delivery possible, but surveys are demonstrating that there is significant value in embracing continuous delivery. The 2013 DevOps Survey found that high-performing organizations are delivering 3 times faster than their peers and with much greater reliability. Time to recover (MTTR).



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2014 International Workshop on **Release Engineering**

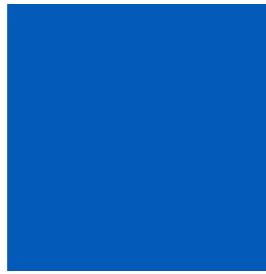


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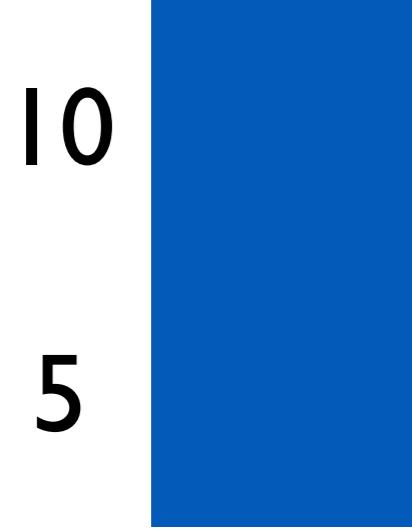
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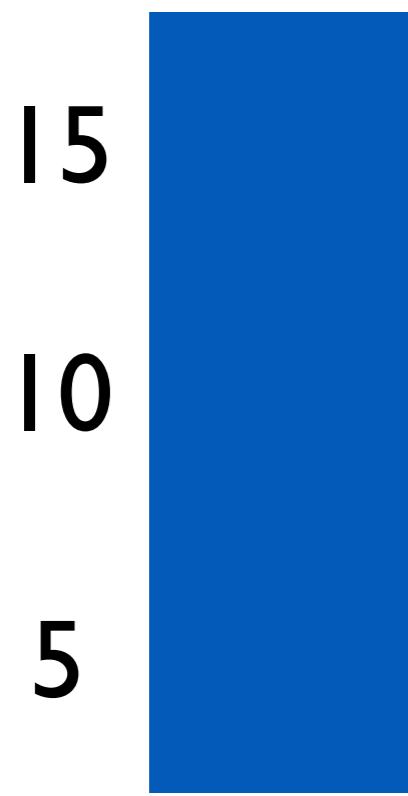
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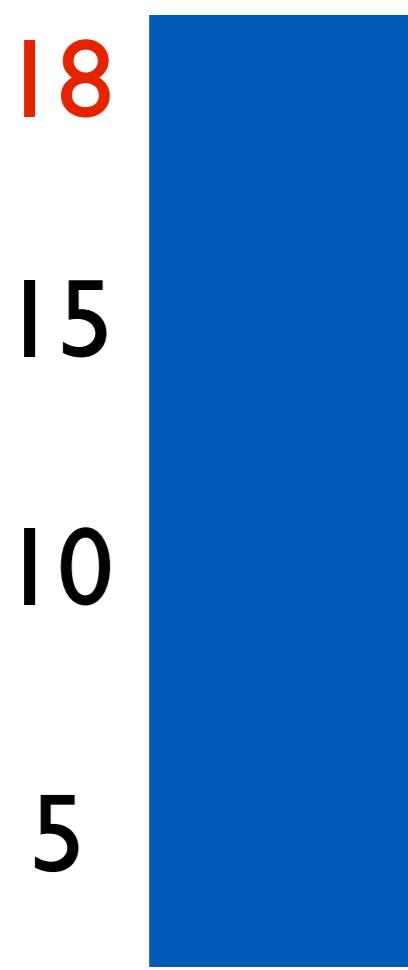
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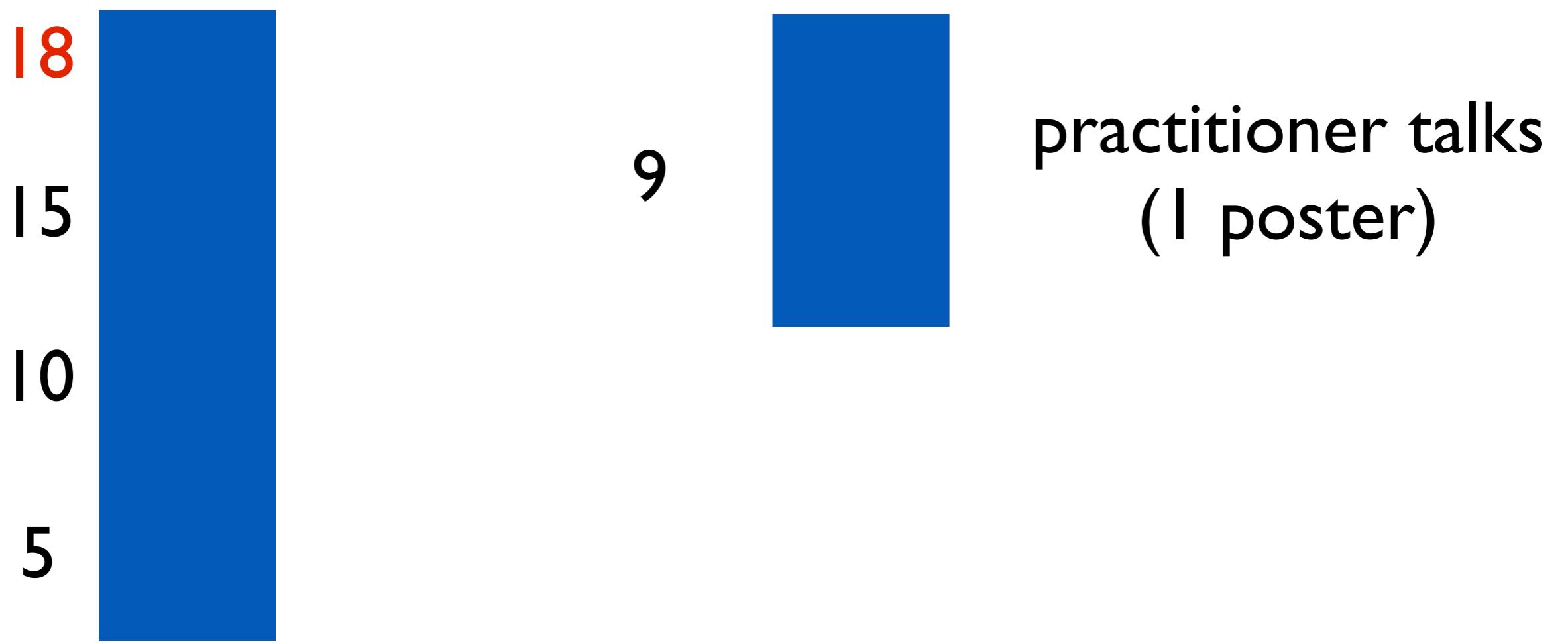
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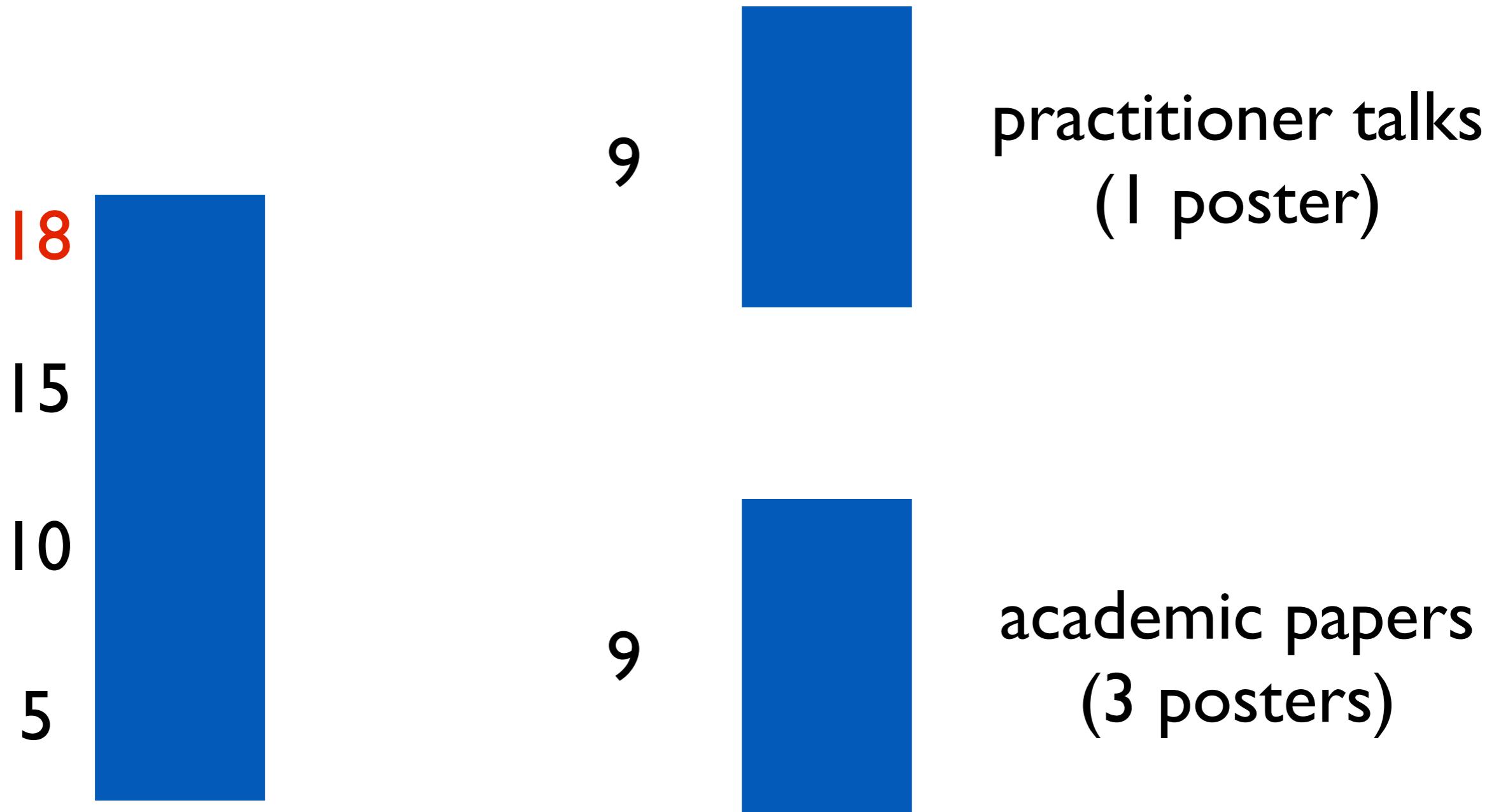
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Jan Bosch

Arie van
Deursen

Daniel M.
German

Reid Holmes

Neil Ernst

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ZhenMing
Jiang

Ethan Munson

Sarah Nadi

Mei Nagappan

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Eelco Dolstra

Ákos Frohner

Alan Grosskurth

Merijn de
Jonge

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Dinah McNutt

Dustin Mitchell

Jason Newblanc

John O'Duinn

Roman Scheiter

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Hal Wine

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IEEE Software

1st Special Issue on Release Engineering

Software used to be released in shrink-wrapped form, but the advent of agile methodologies and the web has overhauled the landscape. For example, a project like Mozilla Firefox releases every 6 weeks, generating updates for dozens of existing versions on 5 desktop, 2 mobile and 3 mobile desktop platforms, each of which for more than 80 locales. In other words, deployment of modern applications requires coordinating the release of applications on multiple mobile platforms, web platforms with centralized backend services, and native desktop clients. Furthermore, concepts like continuous delivery of software are no longer curiosities, but essential to retain a competitive edge.

Release engineering deals with all activities in between regular development and actual usage of a software product by the end user, i.e., integration, build, test execution, packaging and delivery of software. Although research on this topic goes back for decades, the increasing heterogeneity and variability of software products along with the recent trend to reduce the release cycle to days or even hours starts to question some of the common beliefs and practices of the field.

The IEEE Software Special Issue on Release Engineering solicits experience reports and papers on tools, methods, practices and techniques to streamline release engineering. We especially welcome submissions targeting recent challenges like continuous delivery and heterogeneous platform support, but the Special Issue is open to any of the following topics:

<http://releng.polymtl.ca/RELENG2014/html/SI.html>

RELENG 2014

Important dates

Submission Deadline:
August 1, 2014

Publication Date:
March/April 2015 (Vol.
32, No. 2)

Welcome Session

08:30 am Introduction & Speed Dating

Session 1 : Planning the Unplannable?

09:00 am Invited Talk by **Chuck Rossi**

(Release Engineering Manager at Facebook, USA)

Moving to mobile: The challenges of moving from web to mobile releases.

Facebook's web frontend release process has evolved into a large scale pseudo-continuous deployment system where we release anywhere from 30 to 300 changes per push, twice a day, coming from around 1000 developers in four distributed engineering offices. What lessons did we take from our successful web deployments when we made the shift to a mobile-centric company? We'll discuss how we managed to keep features of our fast flowing development and release process and apply them to the very different world of mobile release, which is essentially a shift back to packaged software. We'll describe how we maintain a date based release schedule, how we test and collect mobile metrics, and describe the real-world issues of dealing with package deployment and end-user uptake.



Bio

Chuck Rossi (@chuckr) leads Release Engineering at Facebook and started as Facebook's first release engineer in 2008. Chuck has worked in release engineering for over 20 years and prior to joining Facebook, Chuck was a Senior Build and Release Engineer at both Google and VMware.

10:00 am	<p>A Prototype Tool Supporting When-to-release Decisions in Iterative Development by Jason Ho, Shawn Shahnewaz and Guenther Ruhe (University of Calgary, Canada) [research talk]</p> <p>Continuous Delivery Meets Release Management by Rohit Jainendra (Electric Cloud, USA) [practitioner talk]</p> <p>Discussion</p>
10:40 am	<p>Coffee Break</p>
11:00 am	<p>Session 2 : Extreme Integration</p> <p>Extreme Git Branching for Continuous Delivery by Sarah Goff-Dupont (Atlassian Software, USA) [practitioner talk]</p> <p>How much does this commit cost? -A position paper by Yujuan Jiang, Bram Adams and Daniel M. German (Polytechnique Montreal/University of Victoria, Canada) [research talk]</p> <p>Dependency Management for Continuous Release by Chuck Karish (Google, USA) [practitioner talk]</p> <p>Discussion</p>

Session 3 : Building the Future

12:00 pm	<p>Mozilla's hybrid continuous integration by Armen Zambrano Gasparnian (Mozilla, Canada) [practitioner talk]</p> <p>Extending the Buildpack API for multi-platform builds by Alan Grosskurth (Package Lab, USA) [practitioner talk]</p> <p>Discussion</p>
12:40pm	Lunch & Posters (until 2pm)

Session 4: Why should we do Release Engineering Again?

02:00 pm	<p>Invited Talk by Dinah McNutt (Release Engineer at Google, USA)</p> <p>The 10 Commandments of Release Engineering.</p> <p>This talk will present 10 commandments that I have found to be truths in my 20 years of building commercial software. For each truth, I will provide reasons and examples that support the truth. The commandments are simply solutions to requirements or problems, but it is more entertaining and provocative to present the truths up front, let the listener react, and then discuss the requirements and problems that led to the truth.</p> <p>Bio</p> <p>Dinah McNutt is a Release Engineer at Google, Inc. She has been involved with system administration since the mid-1980s. Some of her accomplishments include writing the "Daemons & Dragons" column for <i>Unix Review Magazine</i> and writing for <i>SunExpert Magazine</i>, <i>Byte</i>, and other publications. She has twenty years of commercial release engineering experience and has released all types of UNIX-based software, from shrink-wrapped to Web-based services to network appliances.</p>
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03:00 pm	<p>On the Influence of Release Engineering on Software Reputation by Christian Plewnia, Andrej Dyck and Horst Lichter (RWTH Aachen University/Software Construction, Germany) [research talk]</p> <p>Challenges in Practicing High Frequency Releases in Cloud Environment  by Liming Zhu, Donna Xu, Xiwei Xu, An Binh Tran, Ingo Weber and Len Bass (NICTA/Sydney University, Australia) [research talk]</p> <p>Quantifying the Business Value of Release Engineering by Dan Tehranian (Virtual Instruments, USA) [practitioner talk]</p> <p>Discussion</p>
04:00 pm	Coffee Break (until 4:30pm)

Session 5: What did those Release Engineers do?

04:30 pm	<p>Contrasting Development and Release Stabilization Work on the Linux Kernel by Md Tajmilur Rahman and Peter Rigby (Concordia University, Canada) [research talk]</p> <p>Factors Impacting Software Release Engineering: A Longitudinal Study by Noureddine Kerzazi and Foutse Khomh (Payza.com/Polytechnique Montreal, Canada) [research talk]</p> <p>Release Engineering Ain't What It Was by Curt Patrick (Netflix, USA) [practitioner talk]</p> <p>Discussion</p>
05:30 pm	Panel & Wrap-Up
06:30 pm	Leaving for Workshop Dinner

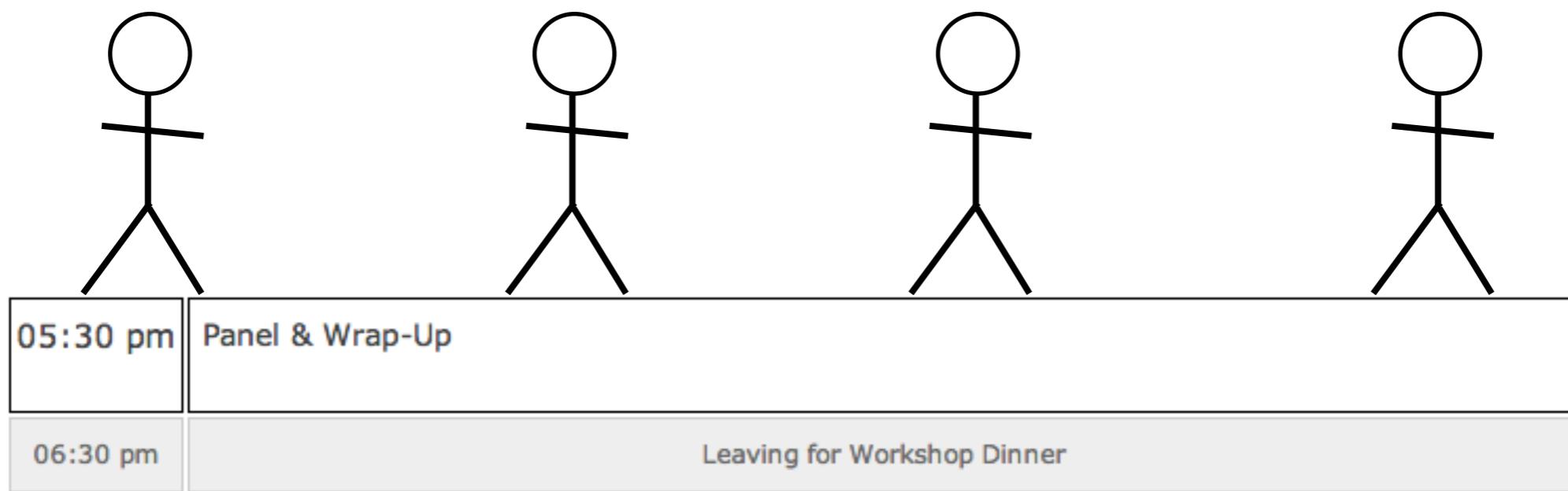
My top
discussion
question

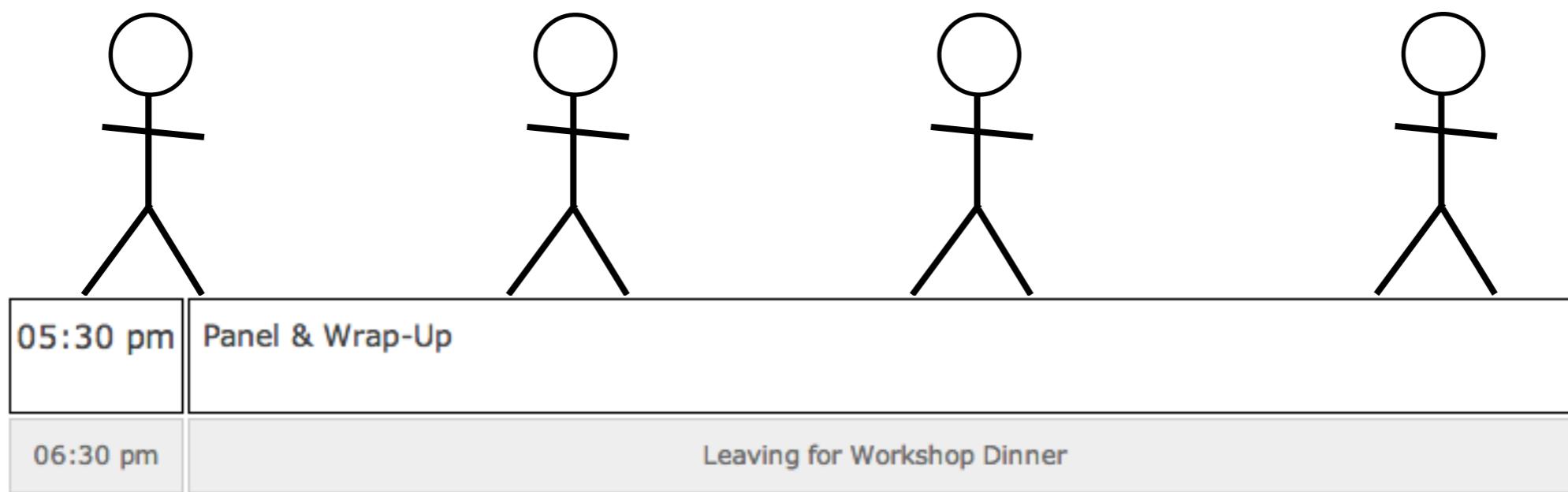
05:30 pm

Panel & Wrap-Up

06:30 pm

Leaving for Workshop Dinner





Fancy Teaming Up for Dinner?

A close-up photograph of a person's face. A hand is holding a bright red chili pepper by its stem, pointing it towards the person's open mouth. The person has white teeth and is wearing dark red lipstick. The background is plain white.

RELENG

Fancy Teaming Up for Dinner?

A close-up photograph of a woman's face. She has her mouth wide open, revealing her teeth and tongue. A single red chili pepper is held horizontally between her upper and lower teeth. Her lips are painted a vibrant red. The background is a plain, light color.

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to releng2014@googlegroups.com



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Hyrum Wright @hyrumwright · Apr 7

At the airport, headed to SJC and the Valley for the week. Looking forward to the #Releng workshop on Friday!

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Jen Smith @JenniferSmithCo · Apr 8

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Scott Muc @ScottMuc · 18h

Microservices - Not a free lunch! [highscalability.com/blog/2014/4/8/...](http://highscalability.com/blog/2014/4/8/)

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Release Engineering

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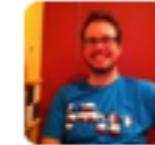
Jen Smith @JenniferSmithCo · Apr 8

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Scott Muc @ScottMuc · 18h

Microservices - Not a free lunch! [highscalability.com/blog/2014/4/8/...](http://highscalability.com/blog/2014/4/8/)

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those Speakers
Coming From?**



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MONTRÉAL



Atlassian

RWTH AACHEN
UNIVERSITY

Google

Package Lab

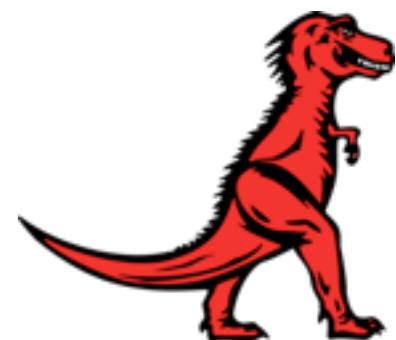
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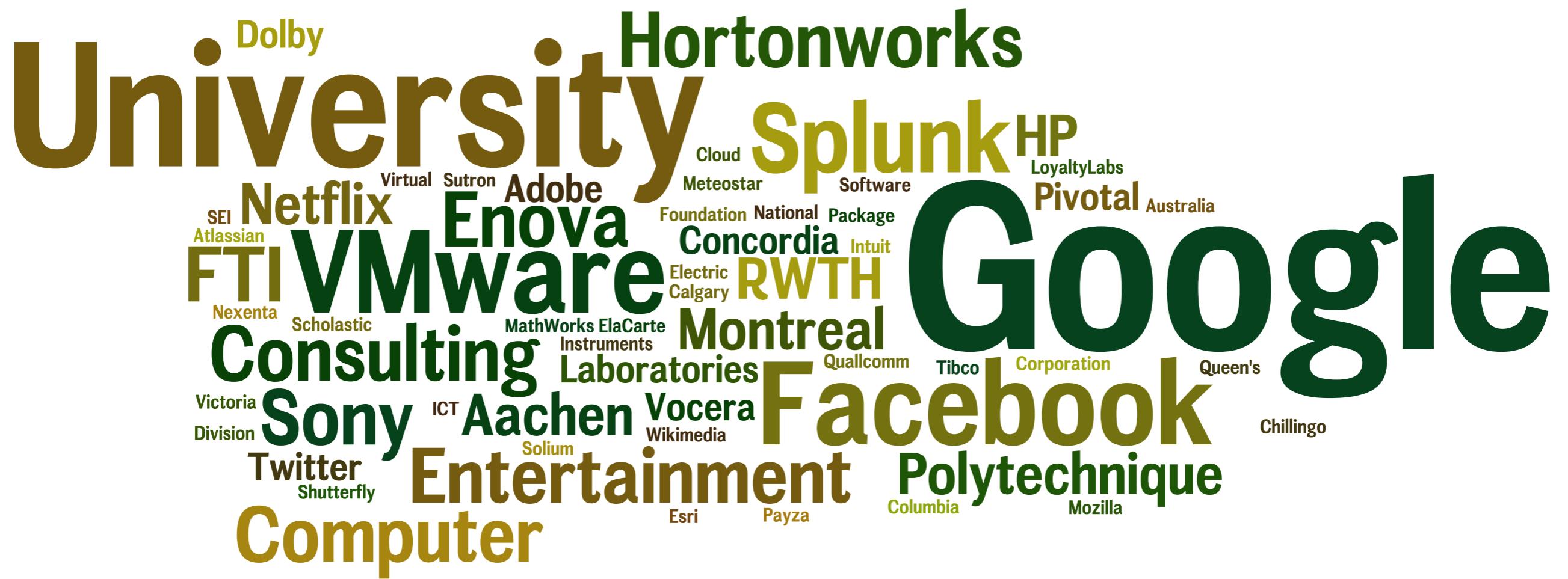
electric
CLOUD

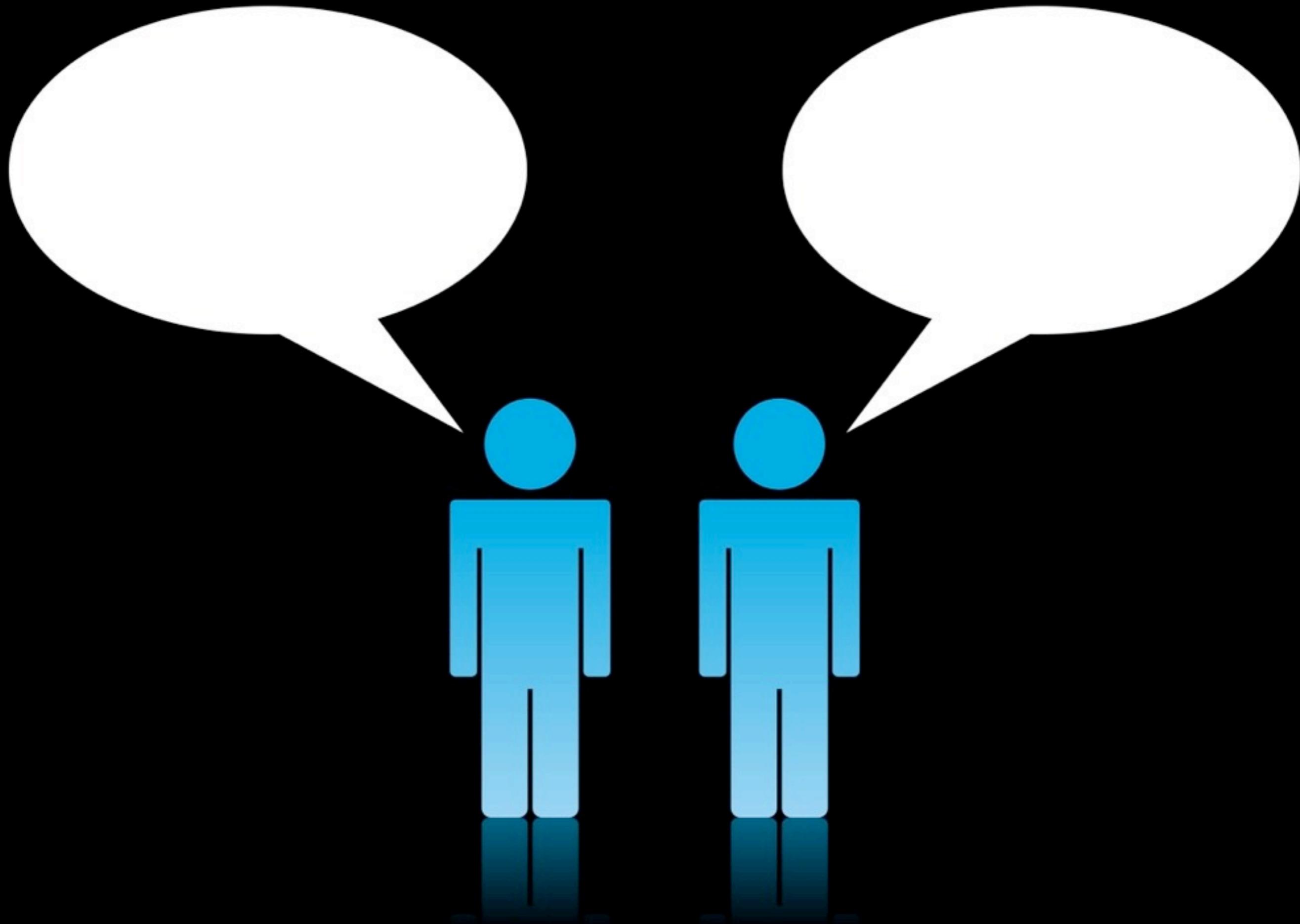
NICTA

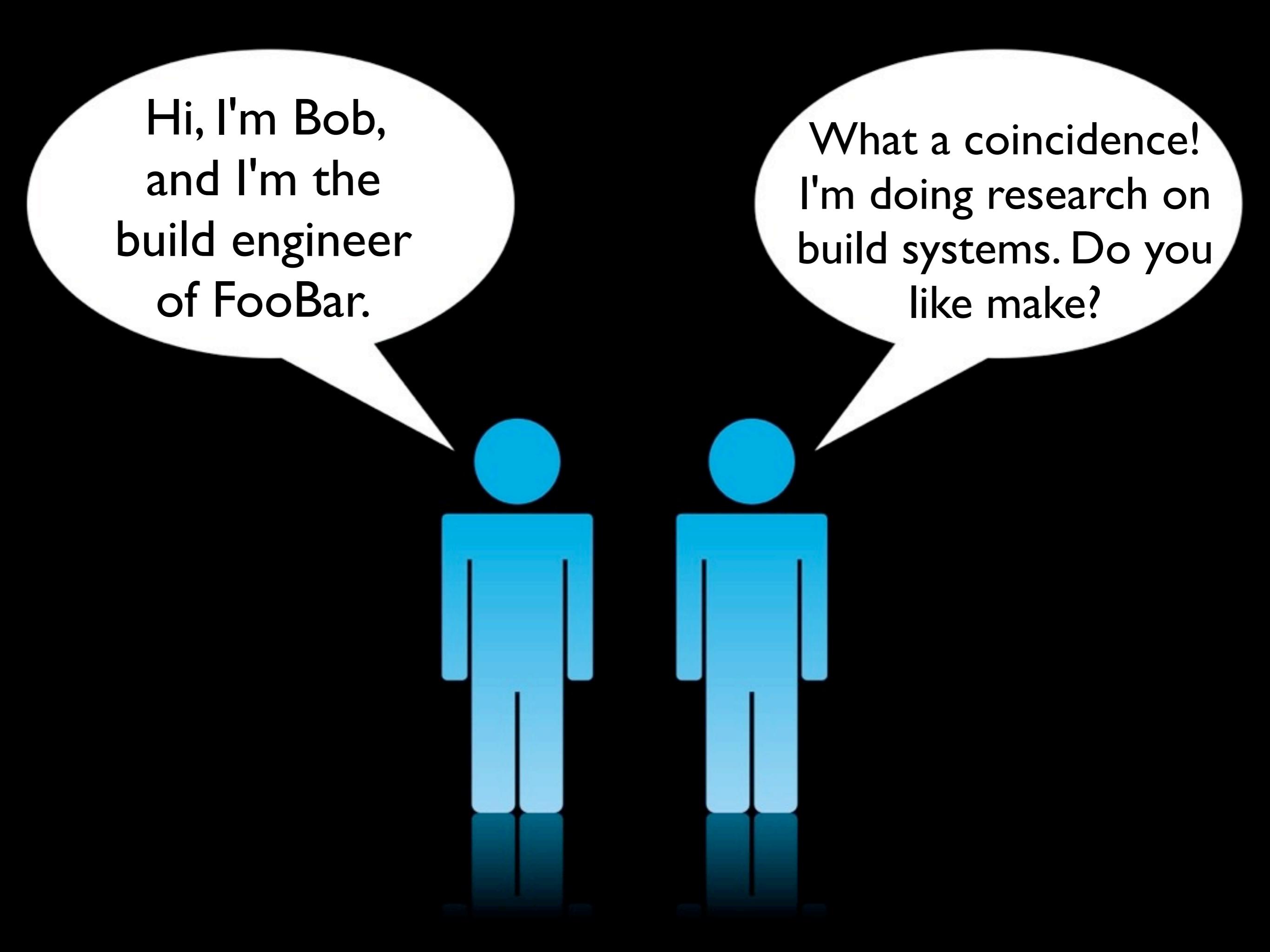


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... and What About You?

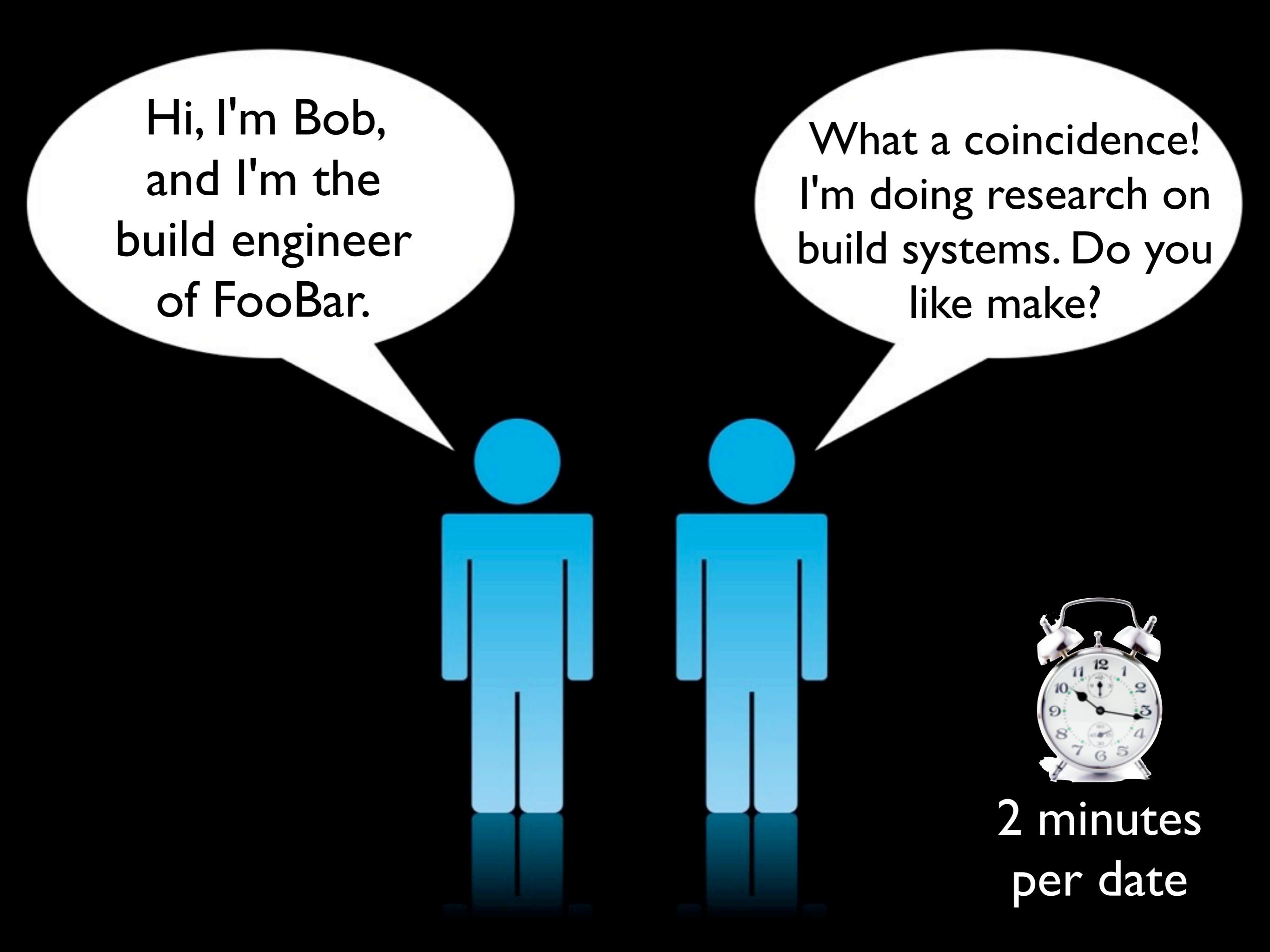






Hi, I'm Bob,
and I'm the
build engineer
of FooBar.

What a coincidence!
I'm doing research on
build systems. Do you
like make?



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and I'm the
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of FooBar.

What a coincidence!
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2 minutes
per date