

Silos are for farmers

Julian Simpson
The Build Doctor



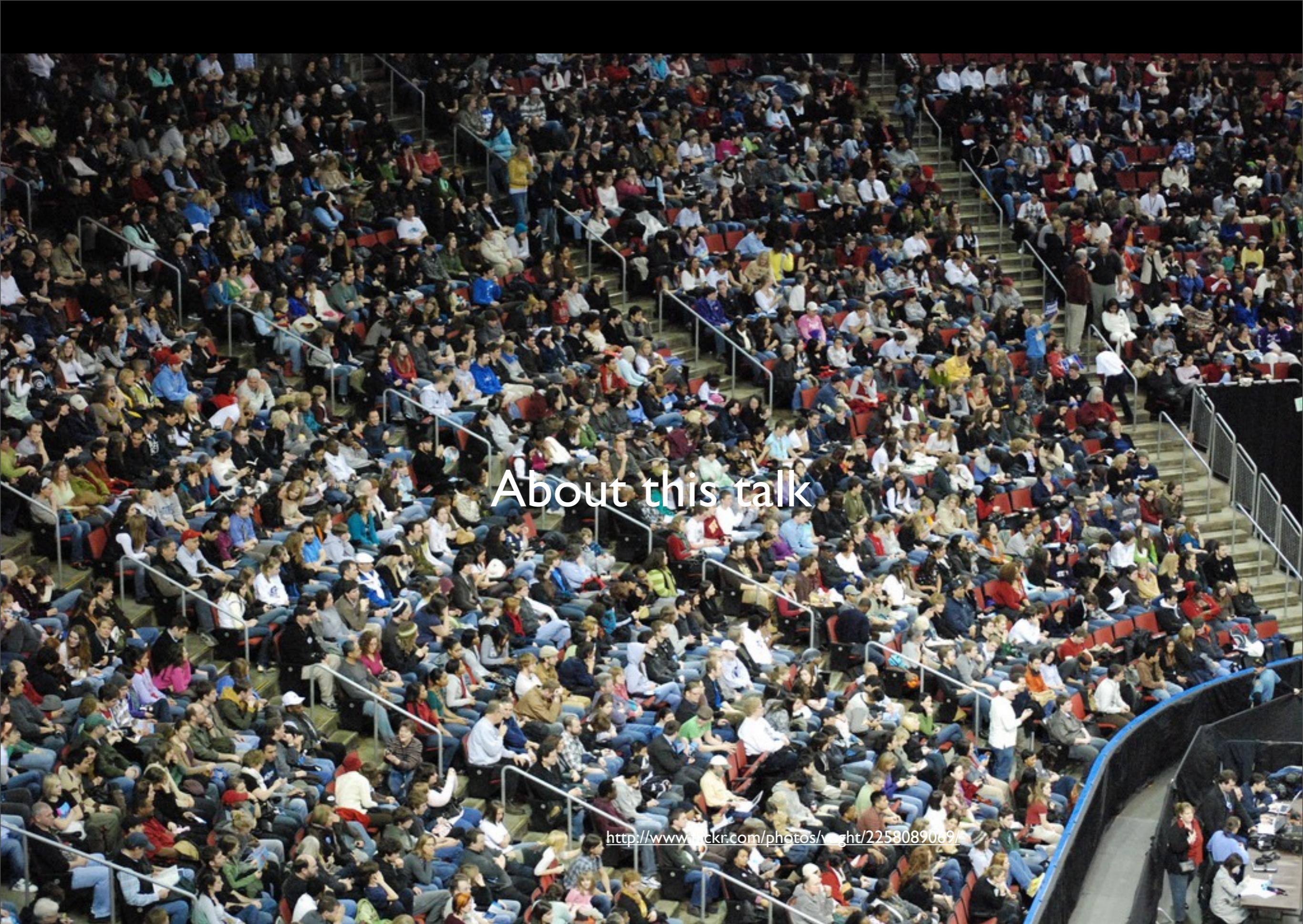
<http://www.flickr.com/photos/eqgman/142532682/>



About Me

Thursday, 4 March 2010

started at erse end of industry
blogger at build-doctor.com
erstwhile sysadmin
build and release manager
passionately believes that we went wrong as an industry
ok coder



About this talk

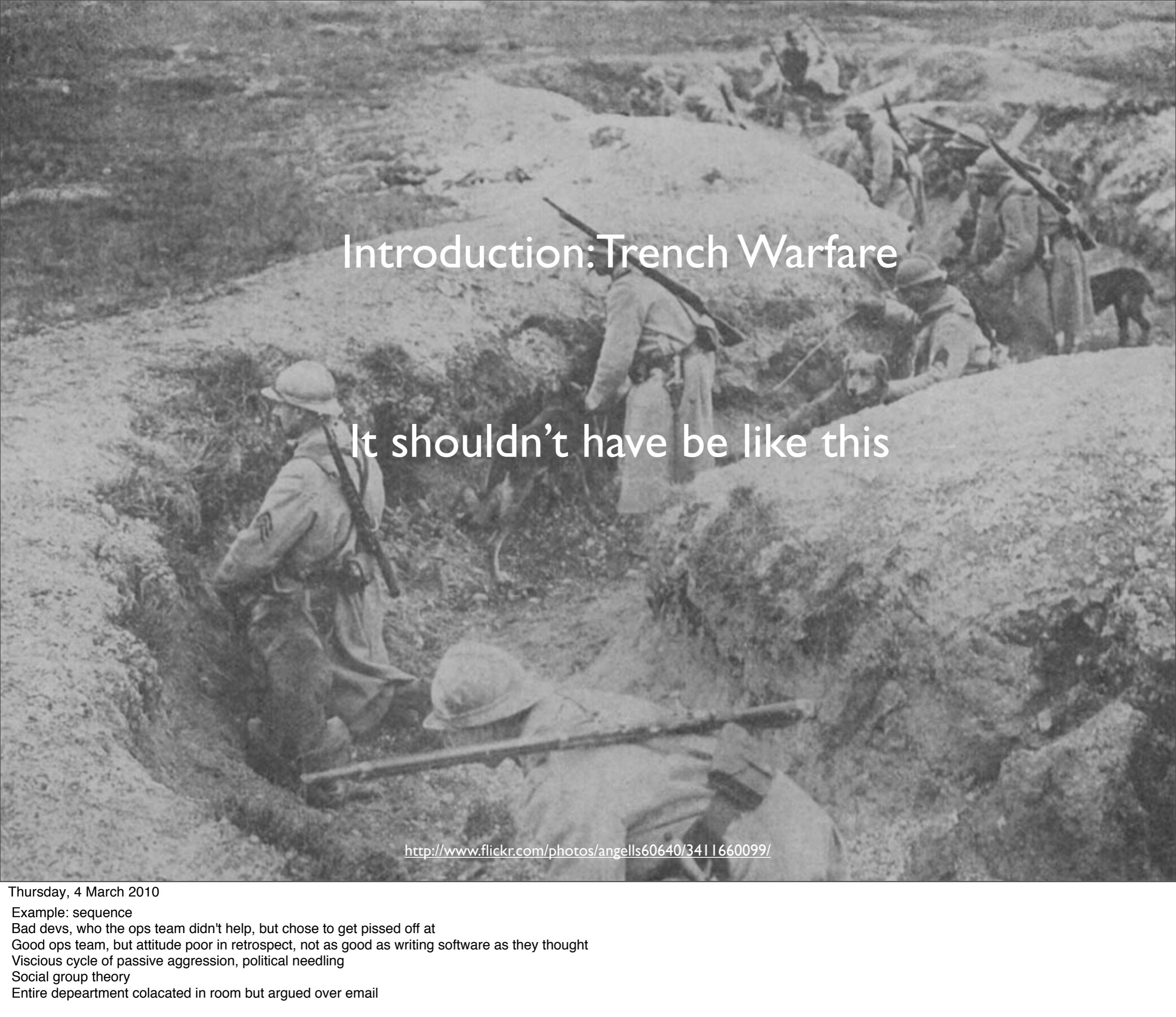
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Agenda

DO THE SKILL CHECK

1. Introduction
2. Handy hints
3. Questions



Introduction:Trench Warfare

It shouldn't have be like this

<http://www.flickr.com/photos/angells60640/3411660099/>

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Example: sequence

Bad devs, who the ops team didn't help, but chose to get pissed off at

Good ops team, but attitude poor in retrospect, not as good as writing software as they thought

Viscious cycle of passive aggression, political needling

Social group theory

Entire department collocated in room but argued over email

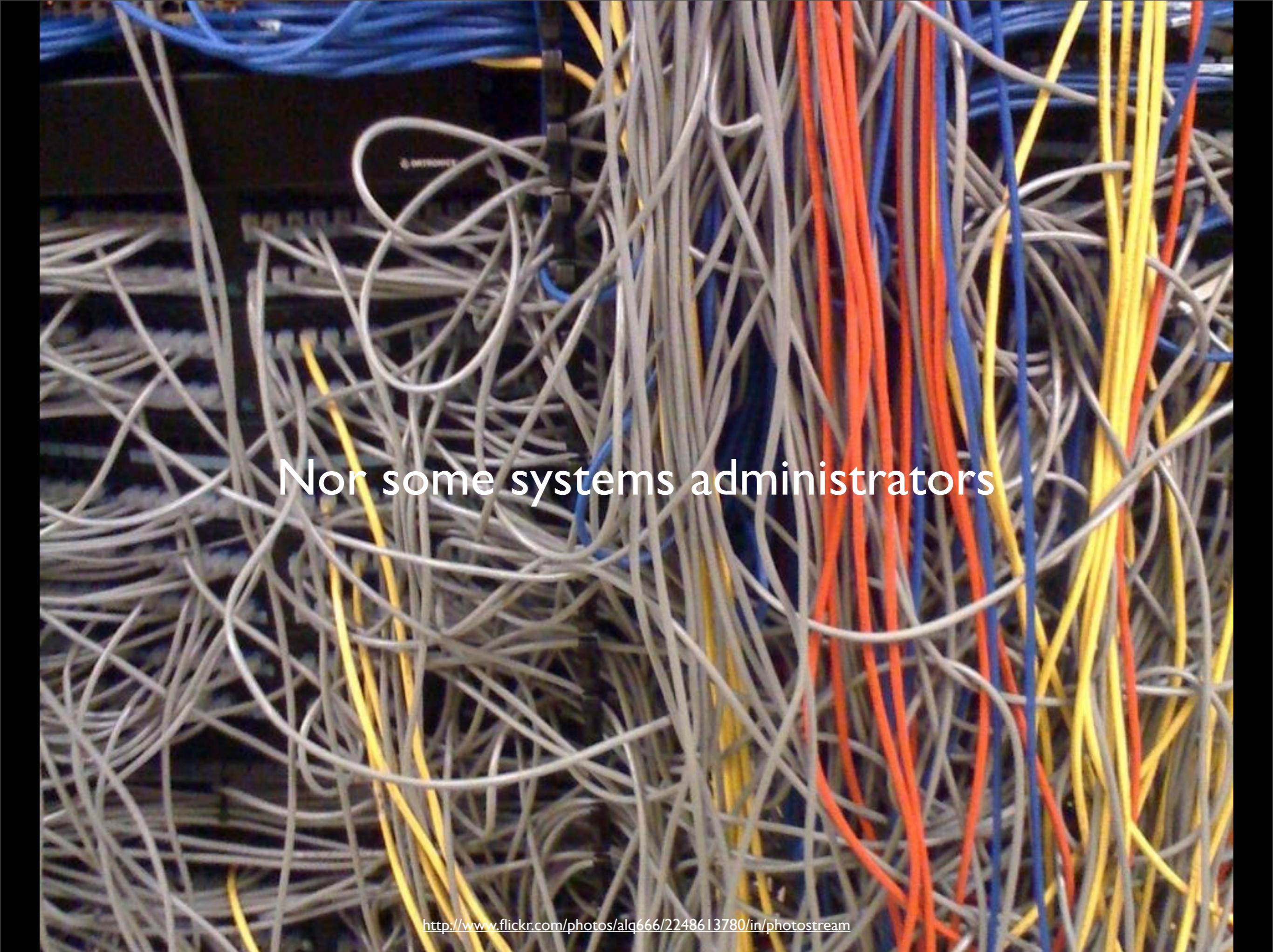


Some developers aren't very good

<http://www.flickr.com/photos/schmilblick/2629823009/>

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There's no need for me to cite examples of underskilled developers when the DailyWTF does it so well.
Worked with many, many developers who were out of thier league but had incentives to stay in the game
You won't get co-operation with someone who doesn't feel equal to the other party
Most of us don't know how to hire good developers
Warning signs: won't pair, prefer to work alone, talking loud, but delivering little



Nor some systems administrators

<http://www.flickr.com/photos/alq666/2248613780/in/photostream>

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Exact same problem with sysadmins
Sometimes harder to document, but go to pub with sysadmins: the stories are there
We don't know how to hire them either



Those people want to hide
You don't want them on your team

<http://www.flickr.com/photos/wbaiv/3236672907/>

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If people aren't just conditioned to make meetings, plan 'catch-ups', telephone calls, write email
Then they are using the organisation to hide - policy is my favourite

“That brings me to Dennis Ritchie. Our collaboration has been a thing of beauty” --Ken Thompson

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Most teams seem to have an adversarial approach "we just need to get this past the operations" "damn developers keep dumping crap on us"

Does an adversarial approach work well in many situations, even in legal?

Collaboration is key to all working in organisations

Yet we pass work around as if we were assembling TV's

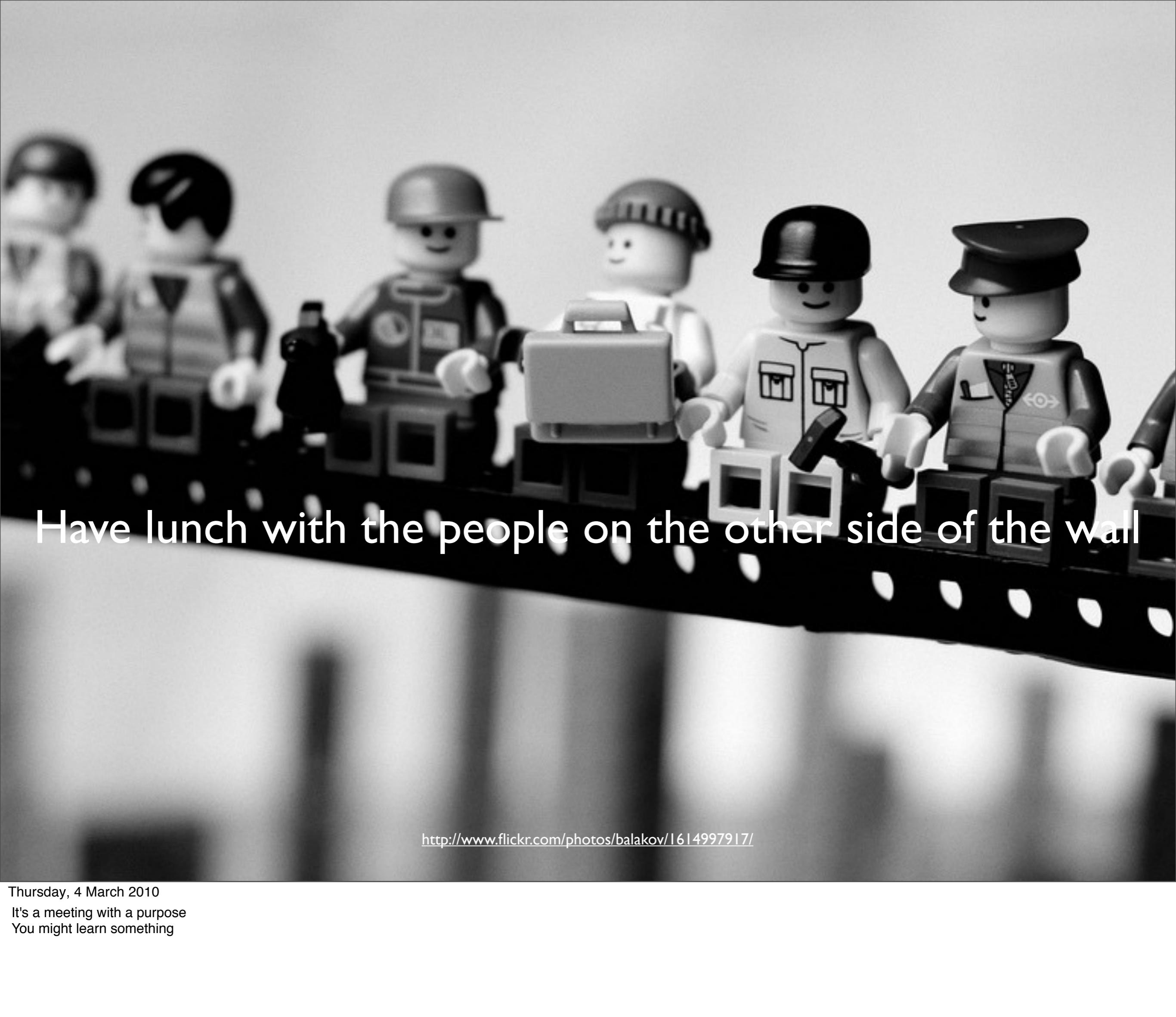
We're passing up effecting collaboration to score points



Both Developers and Admins can use advice

And here it is

<http://www.flickr.com/photos/quinnanya/3457792408/>



Have lunch with the people on the other side of the wall

<http://www.flickr.com/photos/balakov/1614997917/>

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It's a meeting with a purpose
You might learn something

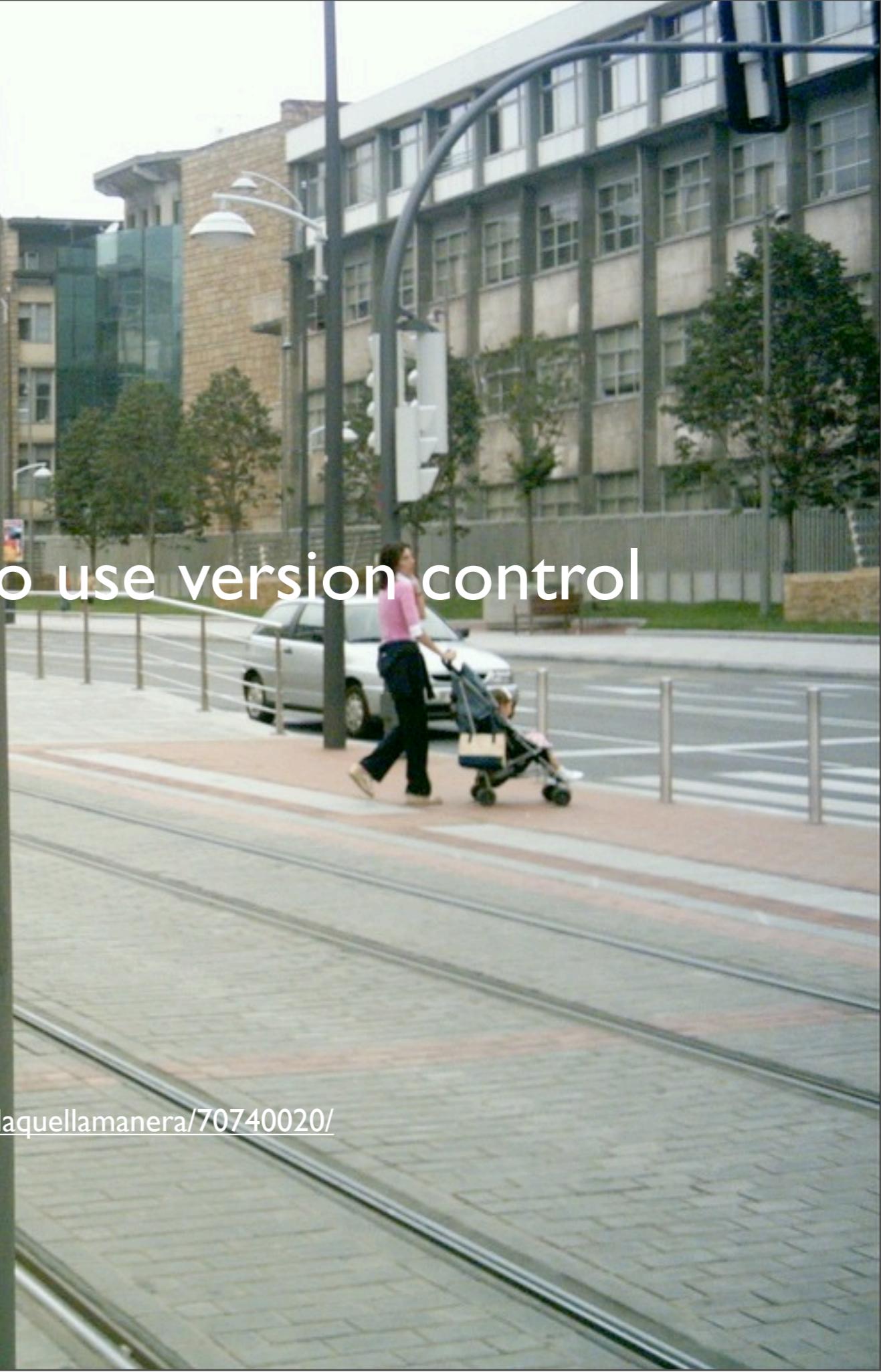


Don't use email. Just stop it.

<http://www.flickr.com/photos/brunogirin/2484786902/>

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We know that email removes about 70% of the communication.
And we're really, really bad at writing them, too. Stop!



Teach your sysadmins to use version control

SUBVERSION



<http://www.flickr.com/photos/daquellamanera/70740020/>

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An operations job is about tracking and controlling change. Why wouldn't you?

I suspect the answer is cultural - it's seen as a developer

Don't use fancy vendor tools, don't use CVS either



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This won't feel natural at first

Harder. because of lack of tools (pairing with vi can be hard)

Great, safe way to learn



Help your developers write performant code
Help developers with managing their dev environment

(ssh public keys)

<http://www.flickr.com/photos/genista/263237928/>

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Why watch someone flounder?

Some sysadmins don't use SSH properly. Those who do, do well. Help developers become more fluent on the systems that you manage. They'll only thank you.

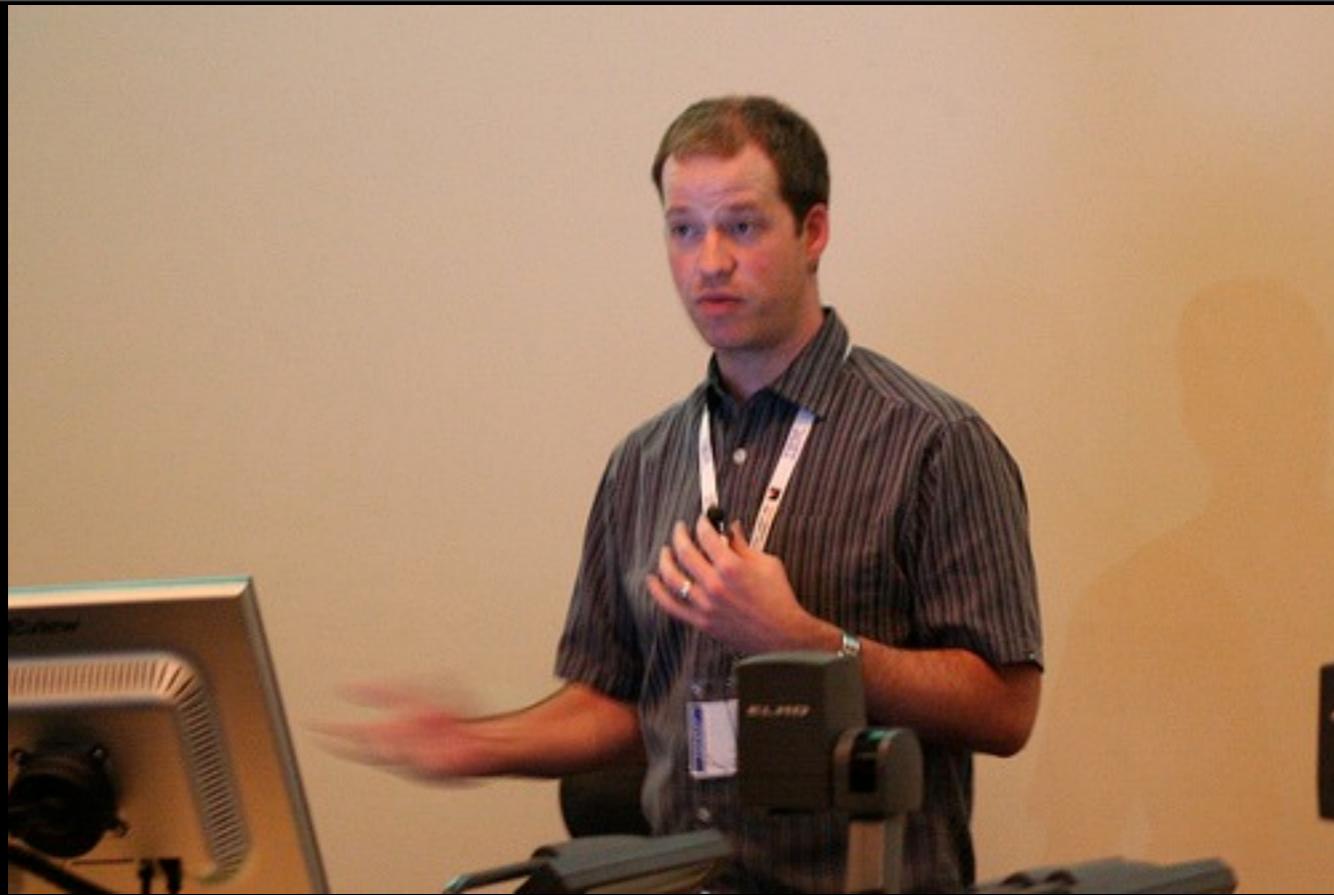
Run your deploy scripts via CI Use continuous deployment



<http://www.flickr.com/photos/clofresh/3384877145/>

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Knowing that your code is undeployable should focus the mind. I've done this, and it helped the testing no end, and it helped derisk the prod deploys
Continuous deployment might not be 50 days to prod
But why not 50 a day to a test server?
CD needs adapting for some domains
But you can take the principles



Use Puppet or Chef



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You don't need to choose one or the other
You need to get good at modelling your systems
And then the choice of tool should come second
Remember this is a VI vs Emacs/Ruby vs Python - you should be focusing on automating well - the other guys are the ones telling the CTO that installing stuff by hand is cool



Sign off stories when the code is deployed to production

<http://www.flickr.com/photos/dave-rogers/2815036285/>

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You're faking it unless you count them as done when they are in production
This gives incentive to help the deploy effort

Synthesise monitoring and CI

Setup monitoring in dev environment

<http://www.flickr.com/photos/34997655@N02/3914526029/>

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Big visible state of your build: fine. What about your build infrastructure?

Don't you want to know? What about production? Is that broken?

It's easy to write plugins to monitoring systems.



There should be no code ownership
outside business code, either

<http://www.flickr.com/photos/nagy/4658629/>

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Collective code ownership is a good rule. Reduces bus factor and onboarding and allows us to plow forward with development

But why do we stop there?

We slow down when the release and build scripts are owned by 1 person. Who wants that?



OS Packages are your friend

<http://www.flickr.com/photos/avlxyz/3014317179/>



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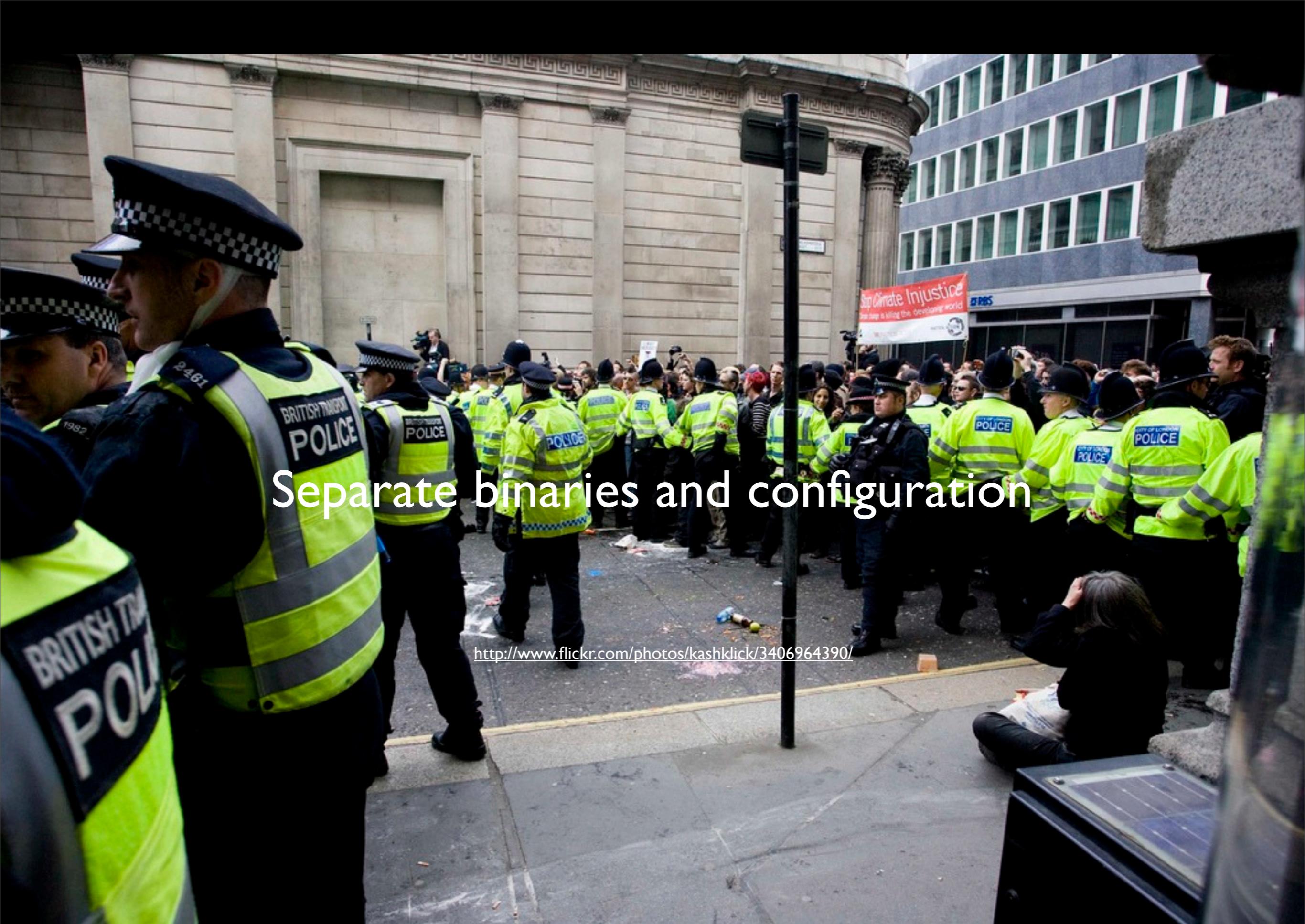
OS packages contain useful metadata

It means you can match up your application and its native dependencies

Doesn't help developers all that much but it helps sysadmins a boatload

Development help in delivering these can be a godsend to devs, and likely to make you a hero

"how often do you ask the sysadmin what they want? - or do you just show up and ask them to deploy something?"



Separate binaries and configuration

<http://www.flickr.com/photos/kashklick/3406964390/>

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What works for your desktop and your very first single-node test environment may not work for all environments
This will hurt everyone unless you head it off at the pass
Seems obvious but I've had people fight me on it



Talk to your systems people
about ideas you have to solve problems.
They may have easier ways.

<http://www.flickr.com/photos/clairity/154640125/>

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Part of theme of engaging early with sysadmins

Sysadmins love problem solving

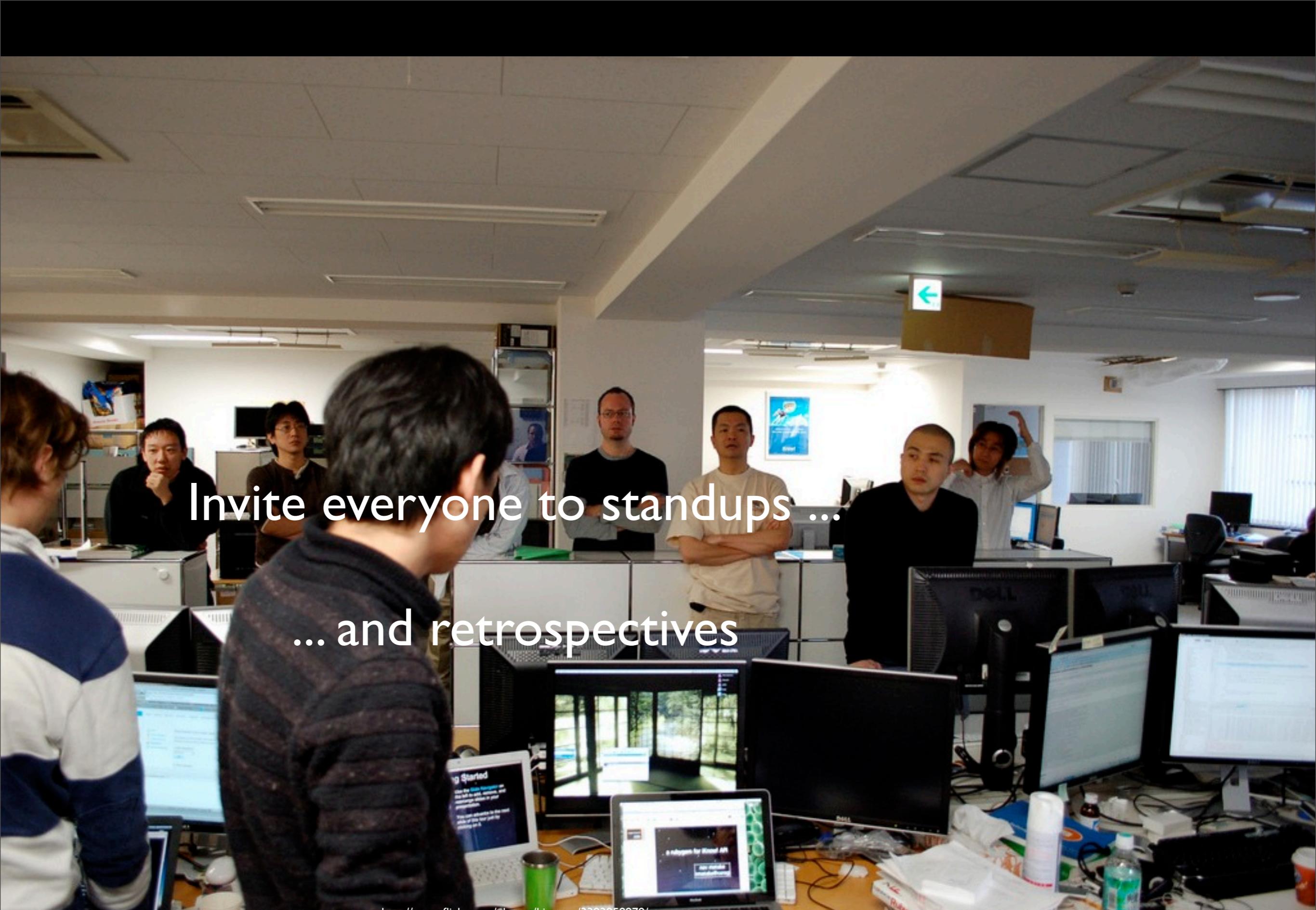
Usually don't like being presented with a problem and solution



<http://www.flickr.com/photos/kdga/38116440>

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Making development systems too easy to deploy to causes deployment problems down the line.
Make development a little more like production and gradually roll it out.



Invite everyone to standups ...
... and retrospectives

<http://www.flickr.com/photos/kimtar/3393958979/>

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It's that whole team thing. Can be boring, but better to overcommunicate.



<http://www.flickr.com/photos/parap/4355237522/>

Co-locate the sysadmins with the devs



Give developers access to production logs and data

<http://www.flickr.com/photos/misterdna/49841409/>

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Feedback loop. If you can't see what your code does in production, how can you improve?

B Y T E B O O K S

BUILD YOUR OWN Z80 COMPUTER

Design Guidelines
and Application Notes

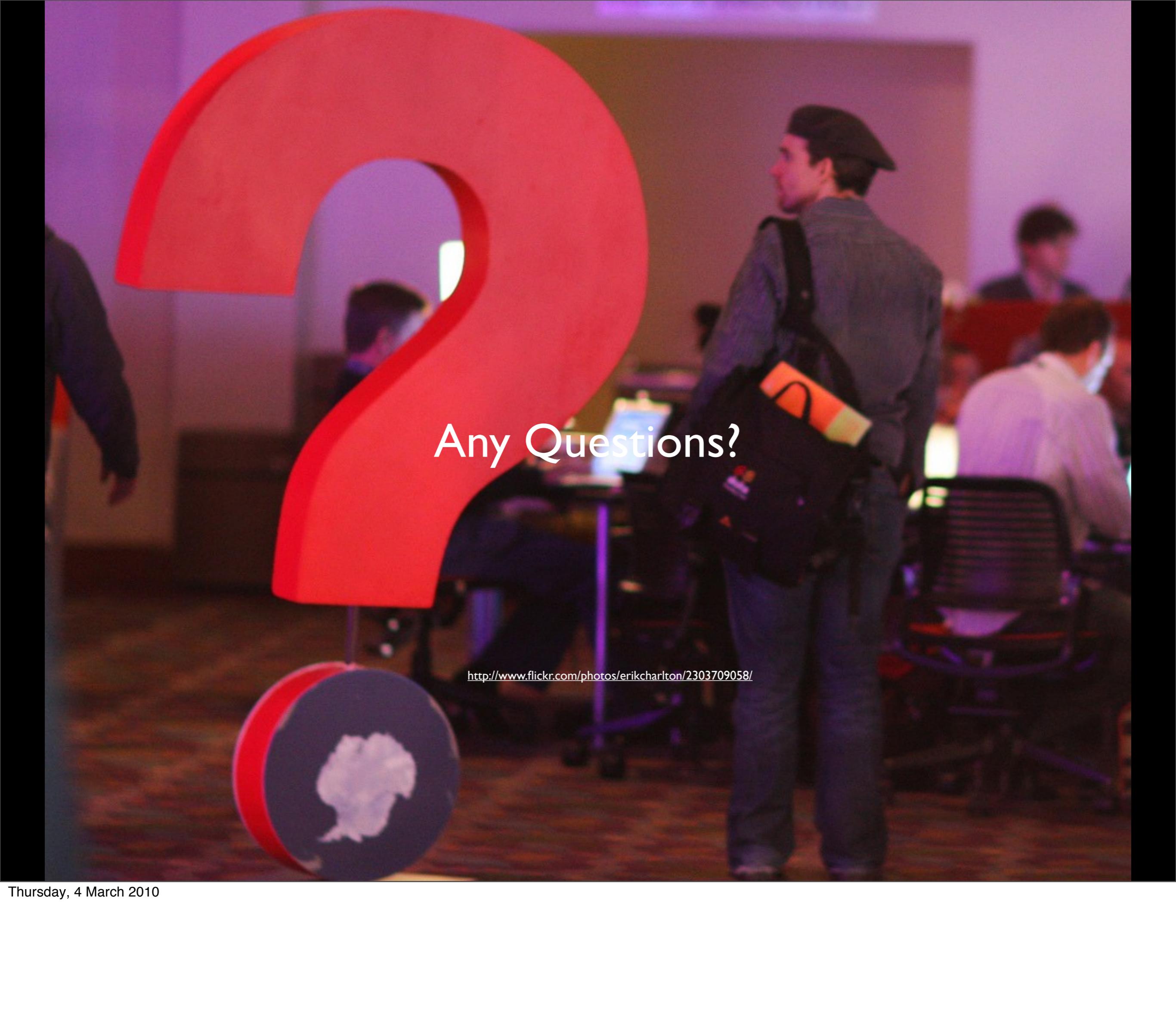
Re-create the developer environment often

by Steve Ciarcia

<http://www.flickr.com/photos/mrbill/159064314/>

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Little tweaks here and there go unnoticed. REbuilding frequently forces us to have a process. rebuilding any system is possible these days with puppet.



Any Questions?

<http://www.flickr.com/photos/erikcharlton/2303709058/>