# (Remote) Pair Programming

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#### Goal

Introduce pair programming
Show a live example
Discuss problems



# History

#### Practised since the fifties

- Fred Brooks as grad student 1953 1956
- Author of "Mythical man"



## Why

Fun

Problem solving

Fast feedback

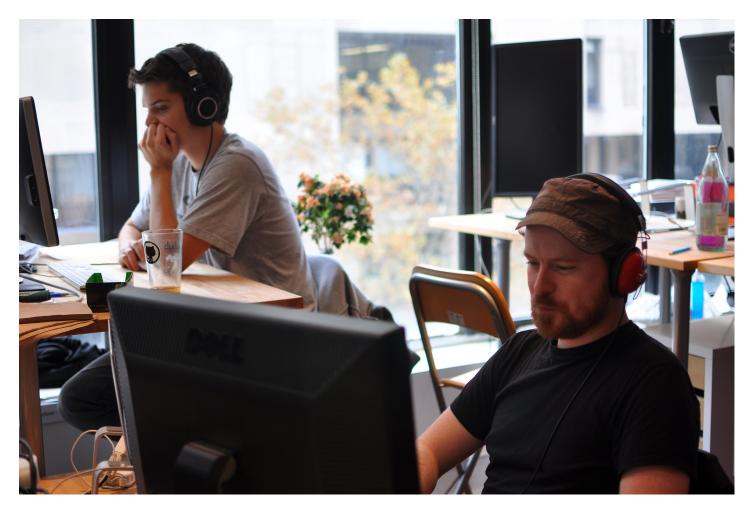


# Problem solving

One person – one problem Two persons – one problem



# Your average developer?





# Spread knowledge

Introduce new developer Handover



#### Knowledge management

"Our knowledge has legs – it walks home every day"

Leif Edvinsson





# Knowledge management





# Knowledge management

Keep you bus count above one



#### Learning

New programming language
New development environment
New development techniques

TDD



#### Teaching experience

One student – Ok solutions

Two students – Better

Three students – Can work

Four students – have never worked

#### Pairs must to be equal

- Not expert Novice
- Novice Novice



# What drives change?

Feedback



#### Who does CI?

Why?

Feedback



# Feedback loop

Length?

It depends



# Bug report

6 months

Water fall project in Stockholm



#### Scale

Customer

Code review

Continuous Integration

Test Driven Development

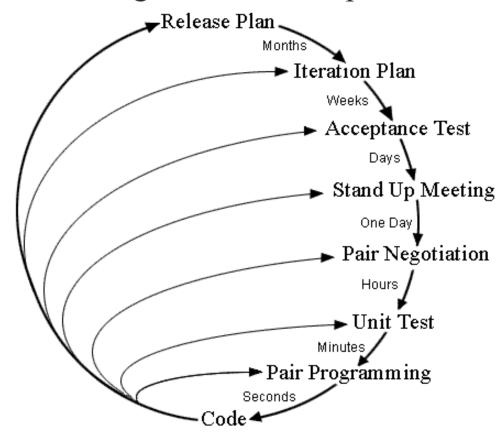
Pair Programming

Driving a car



# eXtreme Programming

#### Planning/Feedback Loops





#### Conclusion

Better software through faster feedback



#### How?



#### **Exercises**

Katas

!Production code

Throw away after



## Pair programming games

Ping pong
Far sight navigator
Silent



## Ping pong

One driver
One navigator
Switch often

~Every second method



# Far sight navigator

One driver

One navigator

Switch seldom



#### Silent

Ping pong No talking

Perfect for remote...



#### Where?

Coding dojos
Code retreats
Remote

Want to pair with me?

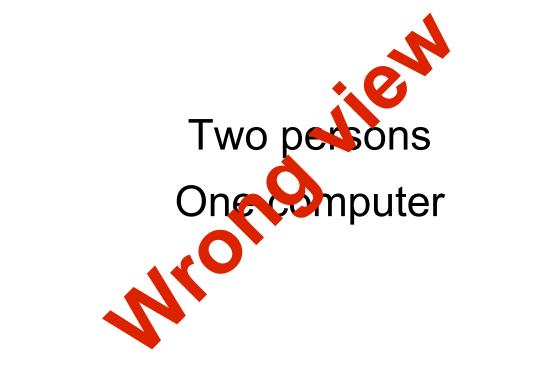


#### **TDD**

Not necessary



#### **Economy**





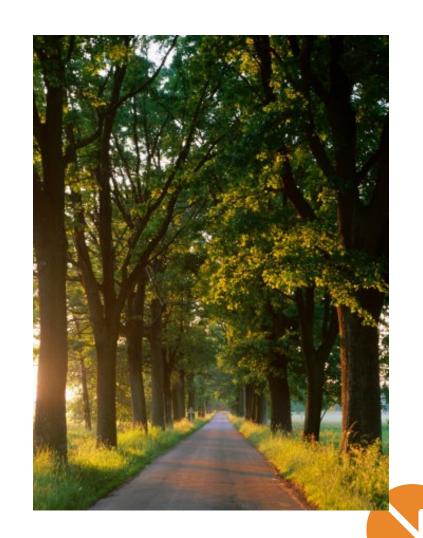
# **Economy**

# Two persons One problem



# Cost of long feedback?

Production bug
Bad performance
Car crash



#### Cockburn and Williams

#### XP 2000

15% slower then independent developers50% less bugs

#### Remote



# Scheduling

Doodle



#### Network

Reasonable



# Tools

Sound

View

Code



#### Tools

Sound – Skype

View – Skype

Code – Github

Ok, not great



#### Tools

Sound – Skype

View - Team Viewer

Shared computer

Great



## Demo



## Remote partner



Alexandru Bolboaca
Bucharest, Romania
http://www.mozaicworks.com

- Coach
- Developer
- Teacher
- Speaker
   Tries to help developers use their brain power in more fulfilling ways



#### Exercise

## String Calculator Kata

Given a string

Parse it

Calculate the sum

#### Example:

"1,2"

3

http://osherove.com/tdd-kata-1/

# Live



# Tips

Second screen for personal stuff
Line numbering
Good headset



## **Problems**



# Remote Pairing

Hard to sketch a solution Time zones



# **Local Pairing**

Personal hygiene Clean clothes



#### Focus

Exhausting

No micro pauses

Plan for breaks



#### Pomodoros



25 minutes work

No interruptions

5 minutes break

# Manager forbids Pairing

### Critical bug in production

Been there

Tried that

Got the t-shirt



## Anti pattern

Don't talk

Leave the pair

Don't explain what you did

Don't say what you want to achieve



## Anti pattern

Rude
Fight about driving
Kidnap keyboard



## Why

Problem solving

Feedback

Better quality

Fun

Not a goal – a tool



#### Conclusion

Better software through faster feedback



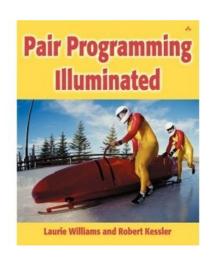
#### Resources

Skype – http://www.skype.com

TeamViewer – http://www.teamviewer.com

http://blog.code-cop.org/2012/08/remote-pair-practice.html

http://thomassundberg.wordpress.com/2012/06/15/pair-programing/



Pair programming illuminated

Google may be your friend...



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