

Married  
to the Mob  
(programming)

hey hi hello

derek graham

@deejaygraham



sage



 **Jeremiah Smith** added you to list  
**Super Interesting People**

3h

The characters and events  
depicted in this  
presentation are fictitious.  
Any similarity to actual  
persons, living or dead, is  
purely coincidental

Mob?



```
struct group_info init_groups = { .usage = ATOMIC_INIT(2) };

struct group_info *groups_alloc(int gidsetsize){

    struct group_info *group_info;
    int nblocks;
    int i;

    nblocks = (gidsetsize + NGROUPS_PER_BLOCK - 1) / NGROUPS_PER_BLOCK;
    /* Make sure we always allocate at least one indirect block pointer */
    nblocks = nblocks ? : 1;
    group_info = kmalloc(sizeof(*group_info) + nblocks*sizeof(gid_t *), GFP_USER);
    if (!group_info)
        return NULL;

    group_info->ngrroups = gidsetsize;
    group_info->nblocks = nblocks;
    atomic_set(&group_info->usage, 1);

    if (gidsetsize <= NGROUPS_SMALL)
        group_info->blocks[0] = group_info->small_block;
    else {
        for (i = 0; i < nblocks; i++) {
            gid_t *b;
            b = (void *)__get_free_page(GFP_USER);
            if (!b)
                goto out_undo_partial_alloc;
            group_info->blocks[i] = b;
        }
    }
    return group_info;
}

out_undo_partial_alloc:
while (--i >= 0) {
    free_page((unsigned
```

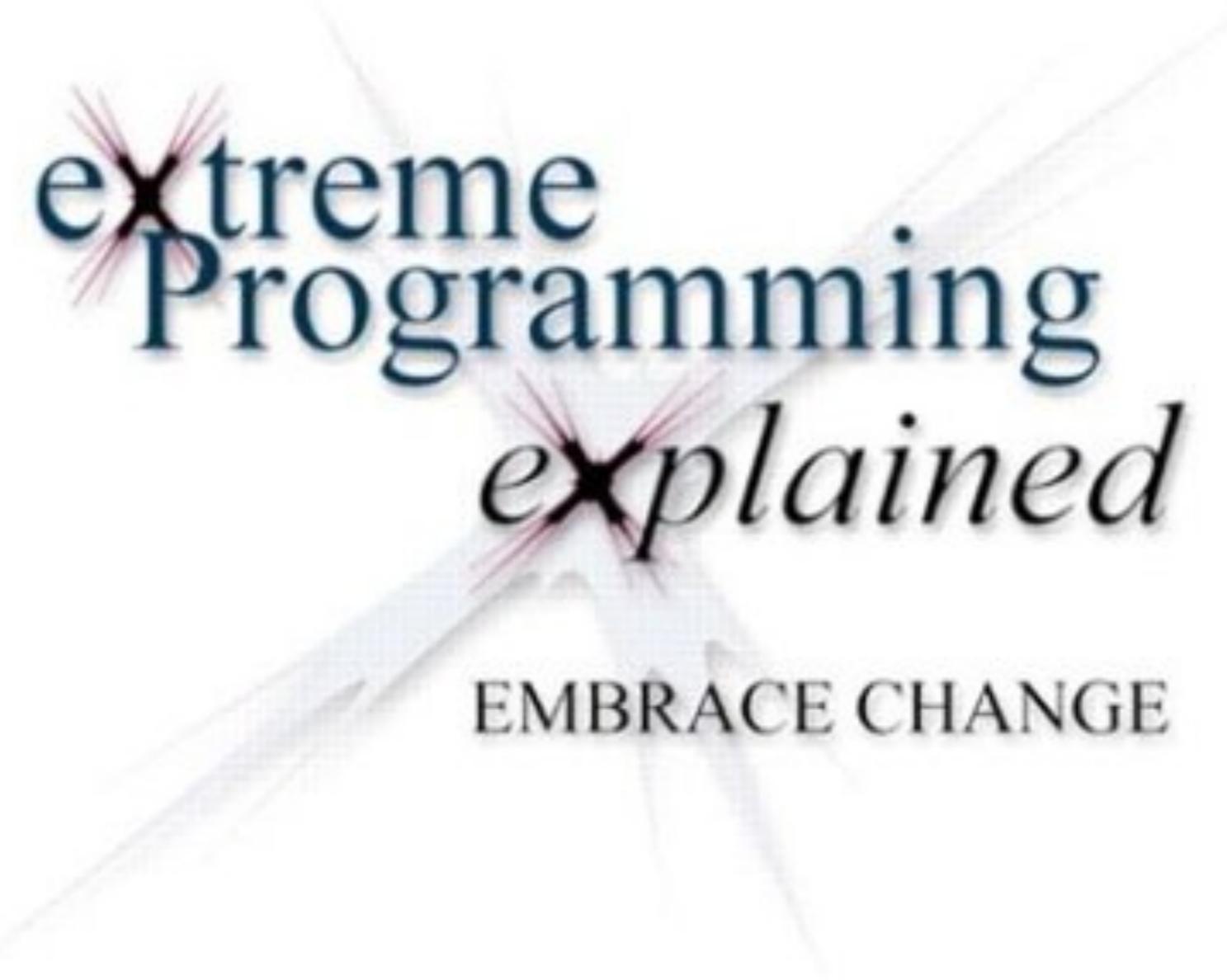


```
free_page((unsigned
```

90% done

# PROCESS





# extreme Programming *explained*

EMBRACE CHANGE

Kent Beck

are you  
XP?



# XP Engineering Practices

- Continuous Integration
- Pair Programming
- Test Driven Development
- Simple Design
- Refactoring
- Collective Code Ownership
- Sustainable Pace

# Swarming

A close-up, low-angle shot of a massive swarm of small, dark insects, possibly gnats or midges, concentrated on a dark, textured surface. The insects are densely packed, creating a dark, swirling mass that extends across the frame. The background is blurred, showing a soft-focus green and brown landscape.





**C#**



**Test Script**



**DB Admin**



**HTML**



**Deploy Script**

“Swarming ... is the first time  
we've felt like a genuine  
team instead of individuals  
all working for the same  
manager.”

– Our Team

Begin {

Days Without a B.I.B. C.U.P Related Accident:  
Last date of Retrospective: 03-16-2015

Perx	Capitalizable Hours	Notes
	✓	Chris - 6 Aaron - 5



HPP ~~is~~ HPP Must Have

Re-evaluate High Priority



**“All the brilliant people,  
working on the same thing,  
at the same time,  
in the same space,  
and at the same computer.”**

**-Woody Zuill**

Mob = XP++

“Mobbing would be  
in the XP book  
(if they'd thought of it)”

-Rachel Davies (Agile Coach)



!Mob

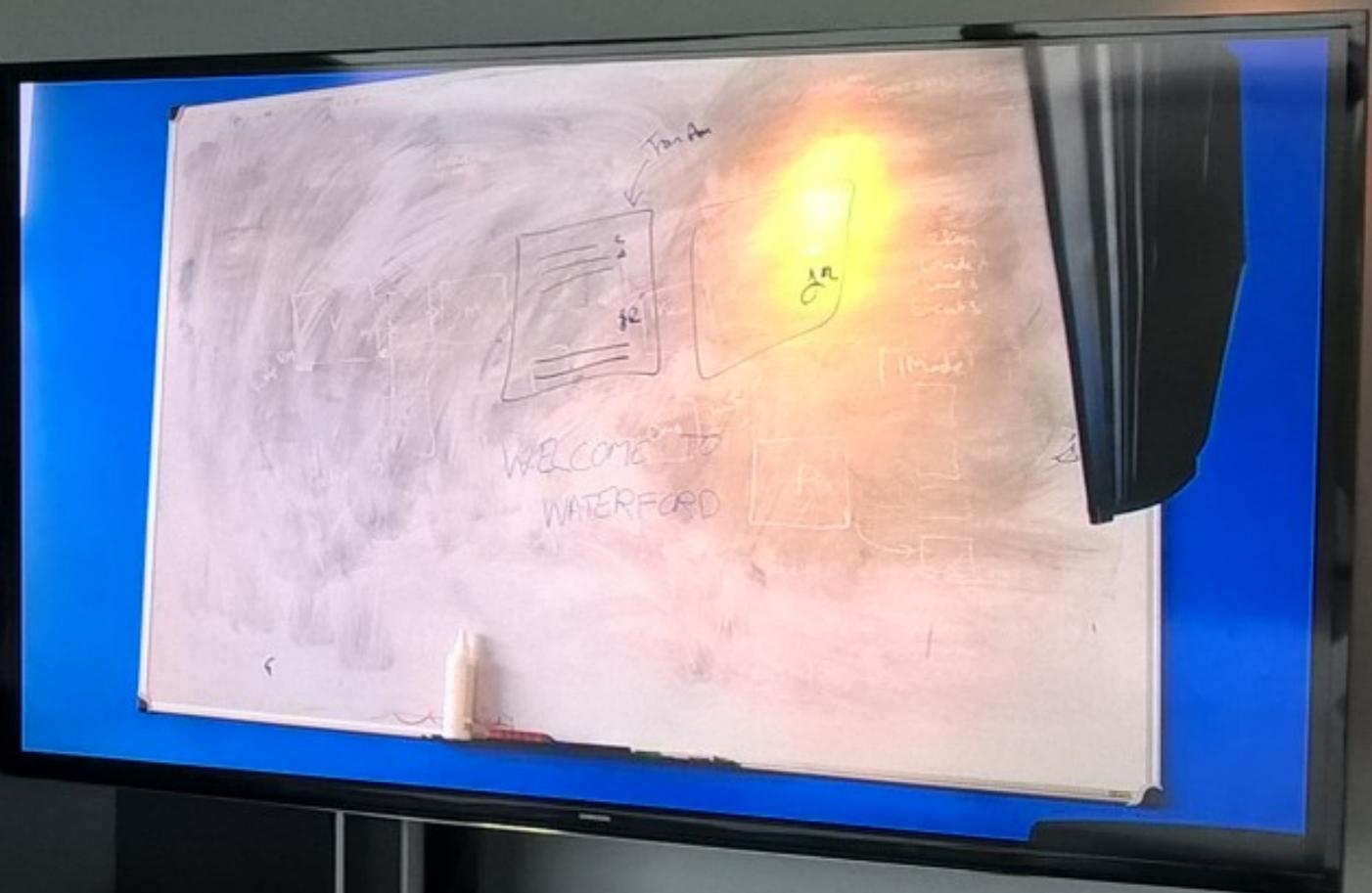
hello, Mob

- Large Screen or HD Projector
- Keyboard & Mouse
- Timer
- Whiteboard
- A Problem

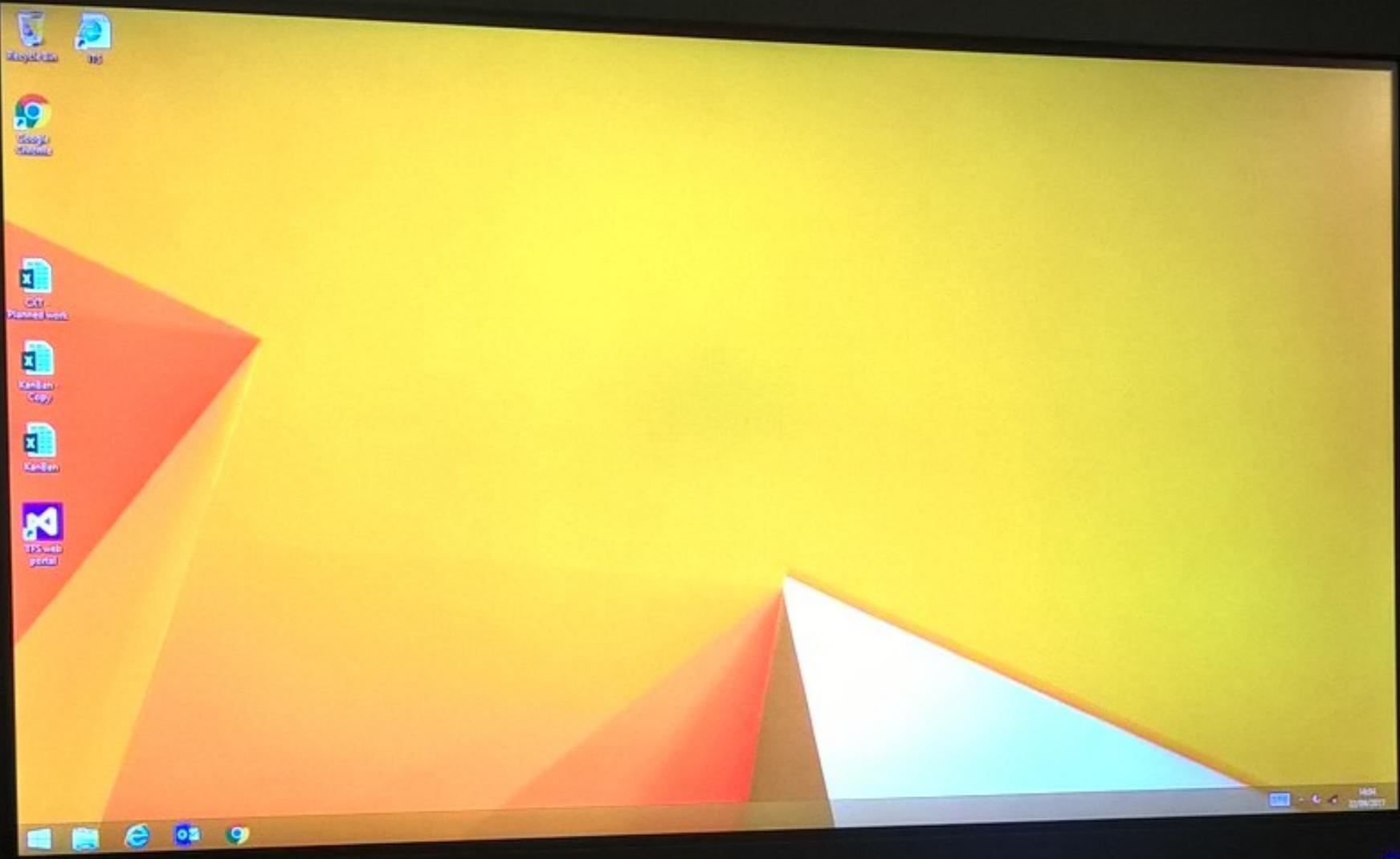
- One set of Input Devices  
(keyboard and mouse)
- Everyone can see the code
- Everyone has a role
- Roles rotate over time



\* reconstruction



Sage  
Waterford  
Sage Business School  
Rudi Fox





# Mob Roles



# Navigator

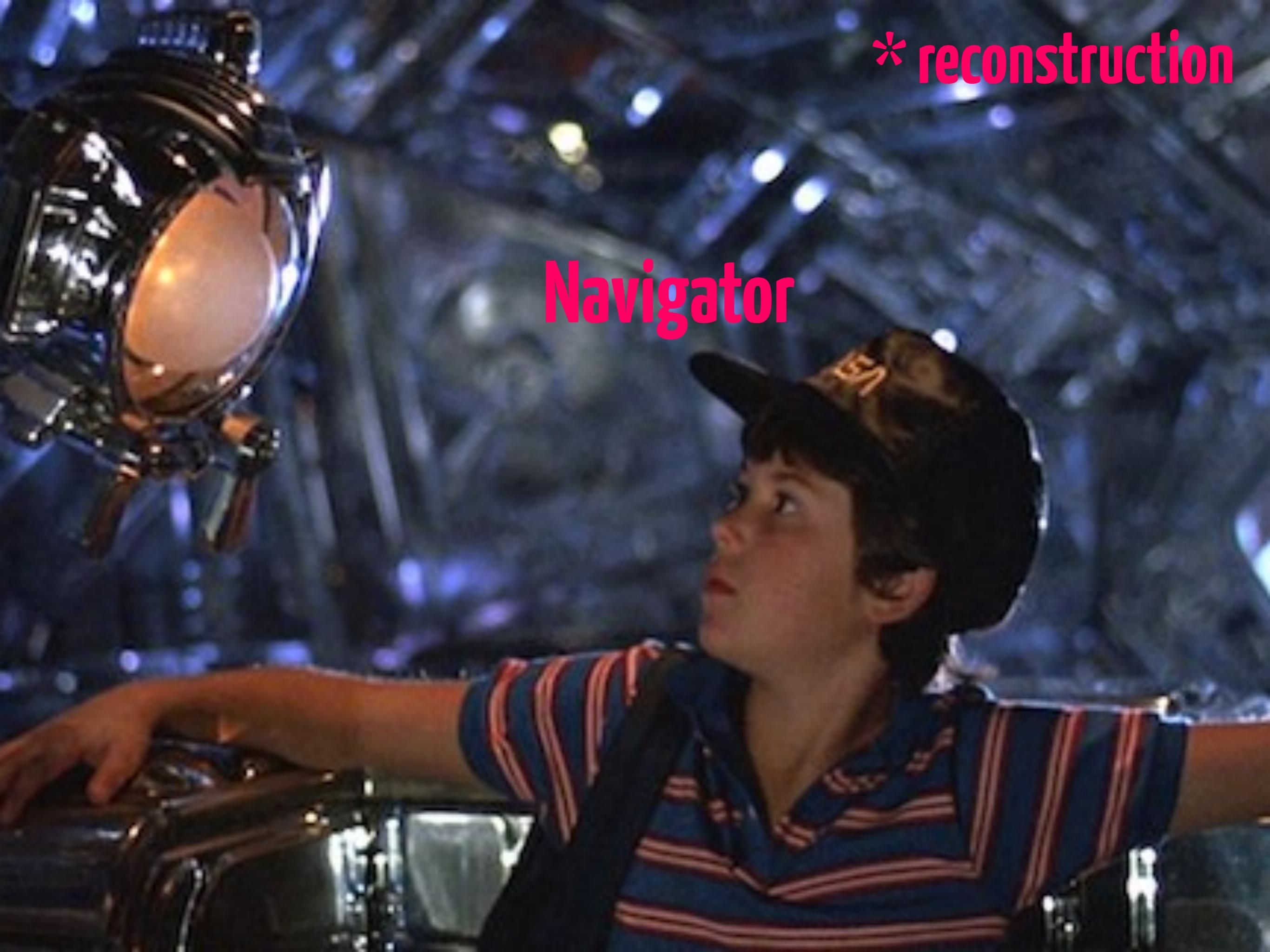
# Driver



A man with glasses and a flight suit is smiling while holding a can of Red Bull. He is in a control room with multiple monitors displaying data. The word "Driver" is overlaid in pink text at the top right, and "\*reconstruction" is overlaid in pink text at the bottom right.

Driver

\*reconstruction

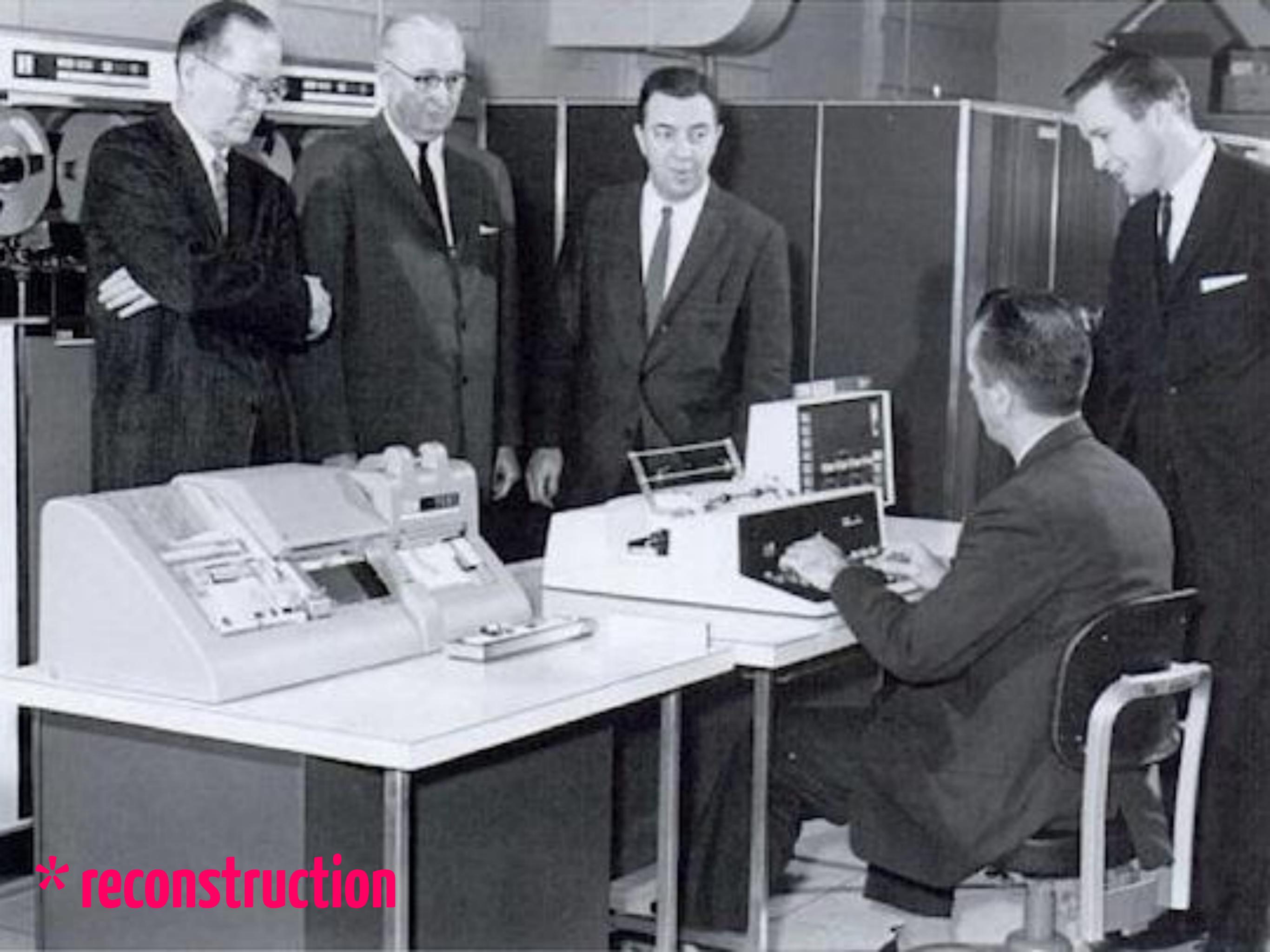
A photograph of a young boy with dark hair, wearing a dark flight suit with red stripes on the shoulders and a white name tag. He is looking upwards with a thoughtful expression. The background is a dark, star-filled night sky with some blurred lights from buildings or trees.

\* reconstruction

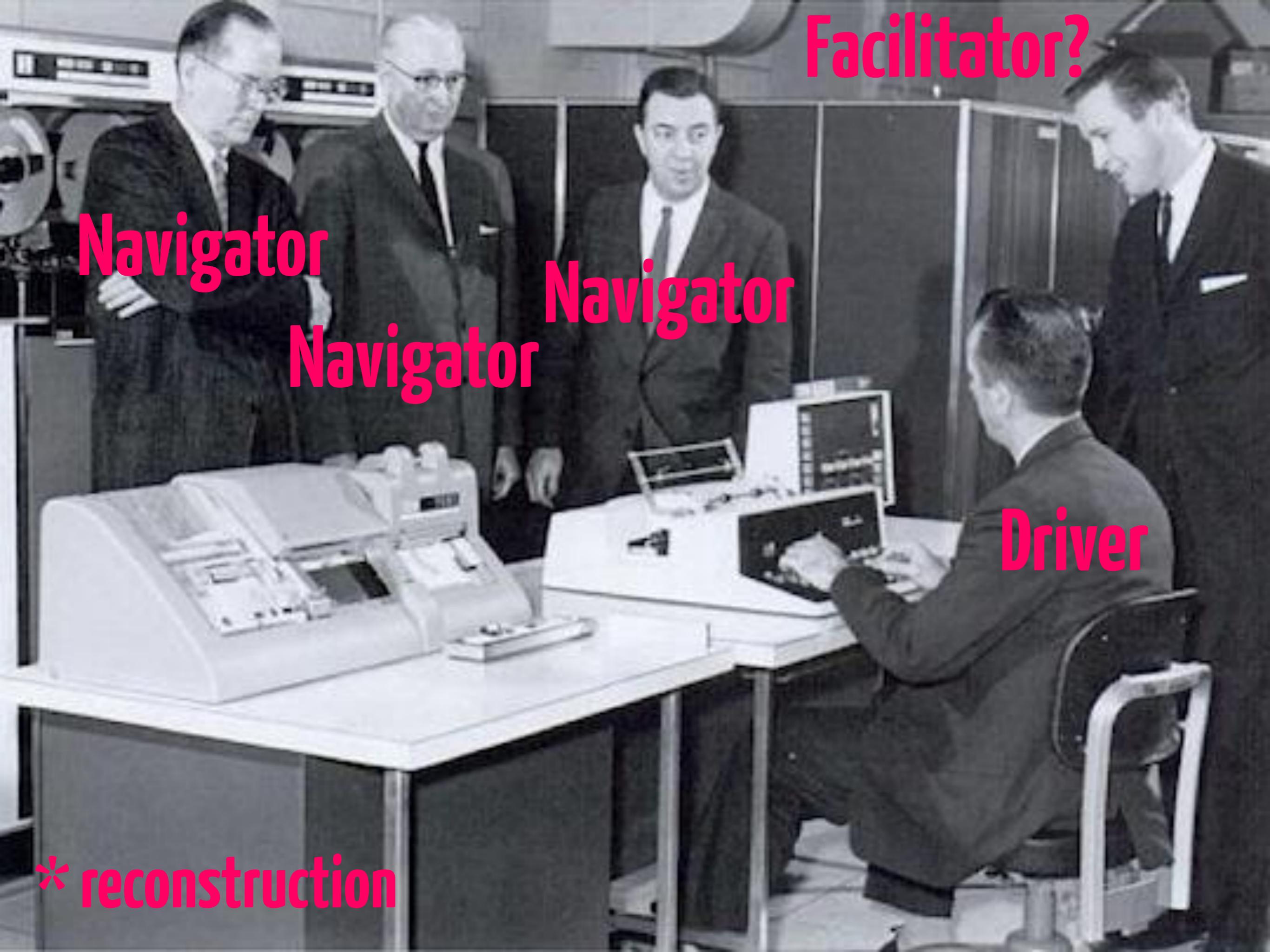
Navigator



\*reconstruction



\* reconstruction



Facilitator?

Navigator

Navigator

Navigator

Driver

\* reconstruction

# Mob Rules

- Kindness
- Consideration
- Respect
- “Yes and...” ideas
- Strong-style Pairing



**“We decided for one day to  
pretend to be kind,  
considerate and respectful.  
And then we decided to do it  
again.”**

**- Woody Zuill**

“Regardless of what we discover,  
we understand and truly believe  
that everyone did the best job  
they could, given what they  
knew at the time, their skills and  
abilities, the resources available,  
and the situation at hand.”

—Norm Kerth

# Hunter Software Department Lofty Goals

How do we interact?

Kindness  
Consideration  
Respect

Be Vulnerable  
Hold Trust  
Show Appreciation

Psychological Safety

How do we code?

No one Between the  
Code and Production

Clean Code

Zarroboogs

How do we do business?

Deliver Valuable  
Working Software to  
Customers Daily

Any One Can Take a  
Vacation At Any  
Time: Zero Silos

Effective  
Interdepartmental  
Communication

How do we innovate?

Continuously Develop  
Lofty Goals &  
Practices

Experiment  
Frequently

Develop Software  
Community

if you aren't learning or  
contributing, find a better  
use for your time.

Mob Roles 2

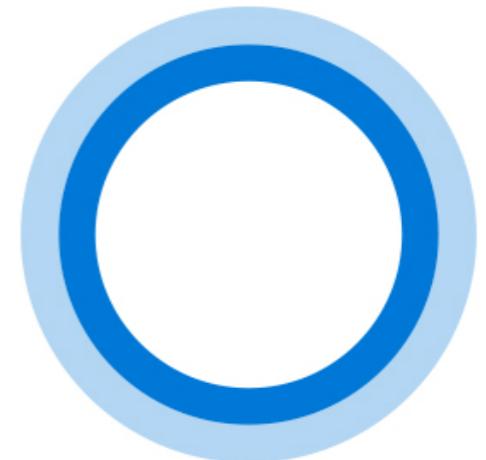
# Driver

Driver Typist



# Cortana for Code

1. Listen to the mob
2. Translate that into code
3. There is no 3



# Siri for Syntax

- Write the Code
- Talk about the Code
- Rollback?
- Patience
- Incomplete Understanding



# Alexa for Algorithms



If you have the keyboard,  
you can't have the ideas

Mob % Typist

**1.Collaborate & Discuss**

**2.What is the next step?**

**3.Talk to the Typist**

**4.Park other issues**

The team is like an  
extended brain,  
it needs to talk out  
loud to know what it  
thinks

# Rotation



**Navigator**



**Typist**



\* reconstruction

Facilitator?

Navigator

Navigator

Navigator

Typist

Timer

\* reconstruction

# Mobbing Timer

Left Click to Increase, Right Click to Decrease, or use scrollwheel

00:05

Chris van Eijk  
Sven van Miert  
Hansy

Add Marker

Remove Marker

Move Marker Up

Move Marker Down

Clear Markers

New Driver

Previous Driver

Anti Team

Start Mobbing!

End Mobbing

Strong Style  
Pairing

**<strong>**



**</strong>**

Have you ever  
had a bug?

# The Pragmatic Programmer



from journeyman  
to master

Andrew Hunt  
David Thomas

Foreword by Ward Cunningham





## Talk with a Duck

You are now in an online chat room with:

- Cyberduck is a mock Rogerian psychotherapist (for debugging).
  - The original concept program was described by Joseph Weizenbaum in 1966.
  - Terminal themed implementation was created by Norbert Landsteiner in 2005.
  - This debugging themed implementation by Ben Holland in 2017.

CYBERDUCK: Please tell me what's been bothering you about your code.

YOU: ■

## References

Cyberduck is based on work by Joseph Weizenbaum and Norbert Landsteiner.

- Weizenbaum, Joseph. **ELIZA – A Computer Program For the Study of Natural Language Communication Between Man and Machine.** *Communications of the ACM*, Volume 9, Issue 1, pages 36-45, January 1966.
  - Elizabot: <http://www.masswerk.at/elizabot>



# Talk with a Duck

\\_\\_/\\_\\_, |\_, \_/ \\_\\_|\\_| \\_\\_|\\_| \\_\\_|\\_| \\_\\_|\\_| \\_\\_|\\_| \\_\\_|\\_| \\_\\_|\\_|

- Cyberduck is a mock Rogerian psychotherapist (for debugging).
  - The original concept program was described by Joseph Weizenbaum in 1966.
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  - This debugging themed implementation by Ben Holland in 2017.

CYBERDUCK: Please tell me what's been bothering you about your code.  
YOU: it's just not SOLID  
CYBERDUCK: What does that suggest to you ?  
YOU: I suck  
CYBERDUCK: Can you elaborate on that ?  
YOU: my software skills are not good  
CYBERDUCK: Does that suggest anything else which belongs to you ?  
YOU: my life in general  
CYBERDUCK: Why do you say your life in general ?  
YOU: it's all going wrong  
CYBERDUCK: Lets discuss further why your software skills are not good.  
YOU: no, I'm going back to VB  
CYBERDUCK: You are being a bit negative.  
YOU: █

## References

Cyberduck is based on work by Joseph Weizenbaum and Norbert Landsteiner.

- Weizenbaum, Joseph. **ELIZA – A Computer Program For the Study of Natural Language Communication Between Man and Machine.** *Communications of the ACM*, Volume 9, Issue 1, pages 36-45, January 1966.
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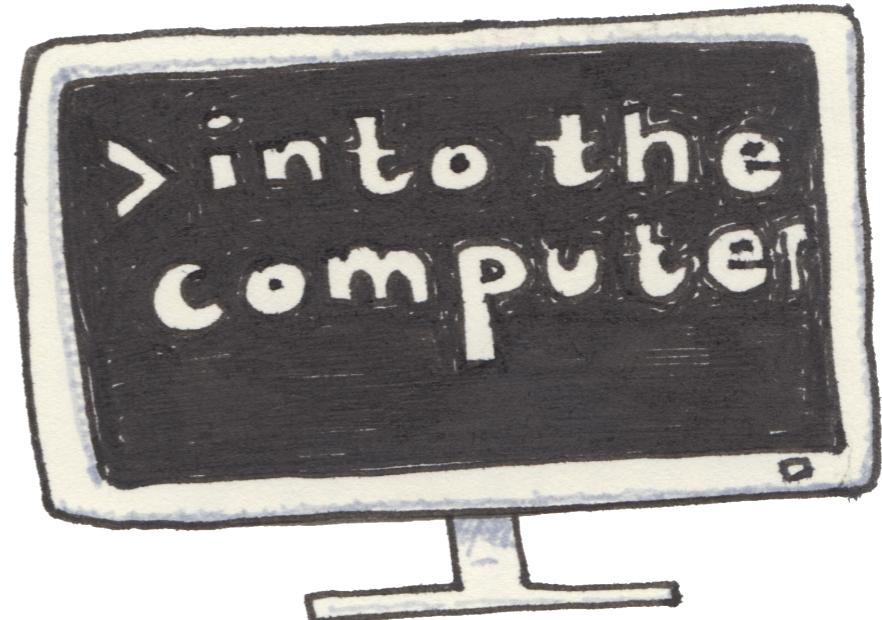




...TO GO  
FROM YOUR  
HEAD...



IT MUST GO  
THROUGH



@deejayshaham  
we are

# Finding the right level

- Abstractions
- Language syntax
- Files, line numbers
- Key presses

```
7     public static string ToSoundex(this string tex
8     {
9         if (string.IsNullOrEmpty(text))
10            return string.Empty.PadRight(SoundexLength);
11
12        var encoded = new StringBuilder();
13
14        // keep first letter
15        encoded.Append(text.First());
16
17        int encodeValue = NotFound;
18        int lastValue = NotFound;
19
20        foreach(char letter in text.ToLower().Skip(1))
21        {
22            encodeValue = MapCharToSoundexCode(letter);
23
24            if (encodeValue != lastValue)
25            {
26                encoded.Append((char)('A' + encodeValue));
27                lastValue = encodeValue;
28            }
29        }
30
31        return encoded.ToString();
32    }
33}
```

```
5 public class Application
6 {
7     public string DoTheThing( int value )
8     {
9         string ddhfadfjkjekfjd = value.To
10
11        if ( ... )
12        {
13
14        }
15    }
16 }
```

When?

# When to...

- Always :)
- New work
- Hard problems
- Across Handoffs

# When not to...

- Sys admin and Dev Ops (pair instead)
- Long running tasks
- Small problems
- JFDI

# SCOTT LOGIC

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ALTOGETHER SMARTER

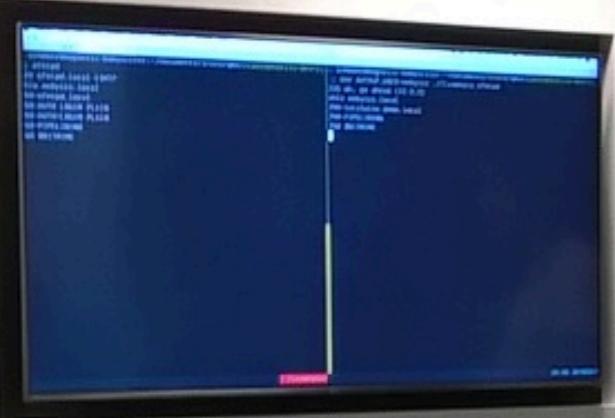
SCOTT LOGIC  
ALTOGETHER SMARTER

THE MORE YOUR  
SWEATS IN PRACTICE



LED IN BA

www.scottlog



Disagreements  
& Uncertainty



Inspect  
& Adapt

- Informal Huddle
- As often as you need to:
  - How are we doing?
  - What is easy?
  - What is hard?

**Turn up  
the Good!**

# Resources

# Mob-Positive Teams

- Hunter Industries
- Industrial Logic
- Alaska Airlines
- LateRooms.com
- pluralsight.com
- GDS (gov.uk)
- Unruly Media
- Blue Fruit
- Menlo innovations
- ...and many more

- Mobbing - <http://mobprogramming.org>
- Woody Zuill - <https://www.industriallogic.com>
- Chris Lucian - <http://www.chislucian.com/>
- mob timer - <https://github.com/dillonkearns/mobster>
- Strong style pairing - <https://lewellynfalco.blogspot.co.uk/>
- Amy Edmondson - <https://hbr.org/2013/12/the-three-pillars-of-a-teaming-culture>

# **Mob Programming**

**A Whole Team Approach**



By Woody Zuill and Kevin Meadows

# **The Mob Programming Guidebook**



**Llewellyn Falco & Maaret Pyhäjärvi**

**<https://leanpub.com/mobprogramming>**

# THE CODING DOJO HANDBOOK

*a practical guide to  
creating a space  
where **good** programmers  
can become **great** programmers*



Emily Bache  
Foreword by Robert C. Martin

<https://leanpub.com/codingdojohandbook>

## **MARK XP: □□□**

### **Whenever you...**

- ...Yield to the less privileged voice
- ...Contribute an idea
- ...Ask questions till you understand
- ...Listen on the edge of your seat

### **Or when you...**

- ...Make an XP action from a previously completed Level 1 playbook

## **THE MOBBER**

***"Let's do this."***

**Shoulder to shoulder with the best,**  
your relaxed manner belies what you  
know to be true: nothing can stop  
this mob from shipping.

### **WHEN YOU MARK YOUR LAST XP BOX...**

Add a new playbook and  
a MOBBER badge  
to your mob



MOB PROGRAMMING: THE ROLE PLAYING GAME by Willem Larsen CC-BY-SA-NC 2016

Powered by the Apocalypse - thanks to BigBadCon 2016 for inspiration

Spy image CC BY 3.0 Delapouite

**LEVEL 1**

**<https://github.com/willem Larsen/mobprogrammingrpg>**

# Problem Solving

Bray, R. M., Kerr, N. L., & Atkin, R. S. (1978).  
"Effects of group size, problem difficulty, and  
sex on group performance and member  
reactions." *Journal of Personality and Social  
Psychology*, 36, 1224-1240.

What can you  
take away?

- Experiment and discover what works for you
- Expect to evolve
- Culture change is hard
- Flash Mob?
- If nothing else...

**<strong>**



**</strong>**





# ONE LAST THING



Intriguing Notion

## Mob Programming A Whole Team Approach



mobprogramming.org  
seamless distributed teams

© 2014 Mob



- 
- A photograph of a man with short brown hair and glasses, wearing a dark t-shirt with a white '10' logo. He is sitting outdoors, looking towards the camera. A small, light-colored dog is sitting next to him, facing away from the camera. The background shows a grassy area with some trees and a building in the distance.
- @deejaygraham
  - [deejaygraham@icloud.com](mailto:deejaygraham@icloud.com)
  - [deejaygraham.github.io](https://deejaygraham.github.io)
  - <http://www.nebytes.net>
  - <https://www.meetup.com/Agile-North-East/>

# #DDDNORTH

## MARRIED TO THE MOB

Oct  
14  
2017

"feels like a real team"

### SWARMING

- Gather together
- discuss features
- diverge to solve different aspects
- bring everything together



### PAIRING

### (Programming)

XP!

feedback cycles



### TIMERS

MOB PROGRAMMING  
ROLEPLAY GAME

#### Good for:

- Green field
- New Work
- Group Learning



All the brilliant people working on the same thing at the same time on the same computer

for coding!

Other computers:  
 Research  
 Testing

### TYPIST

### DRIVER



Mostly a typist

Not thinking about code (maybe syntax)

5mins



### Navigators

More time thinking than driving.

- One set of input devices
- Everyone can see the code
- Everyone has a role
- The roles rotate

CONFLICT

TIME BOX

SPLIT MOB & DECIDE

Say what to code  
Focused solely on code?

- No, thinking about future as well as current

- Next step? → feature
- Collaborate
- Communicate with Driver.

@deejaygraham

*That's all Folks!*