

# Mob Programming

## A Whole Team Approach



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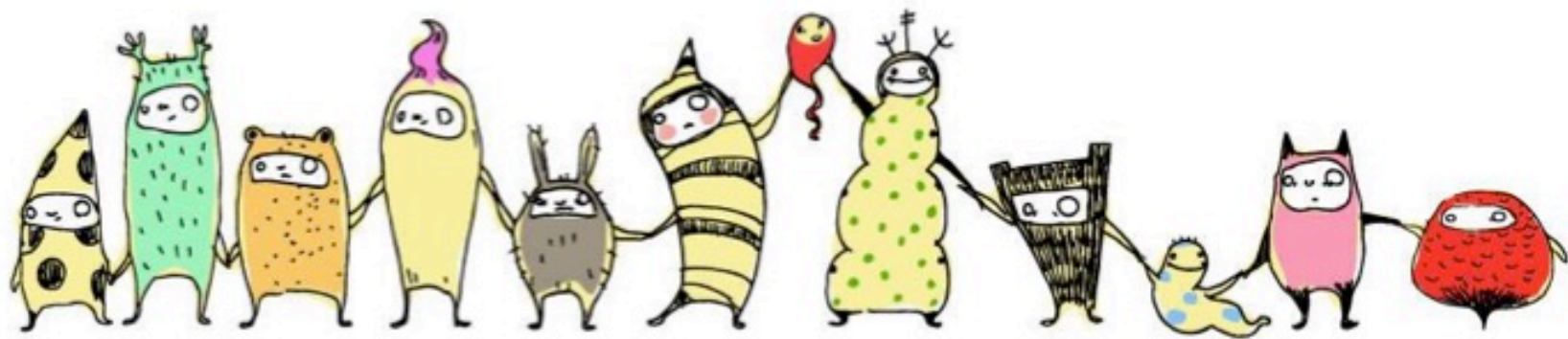
**“The value of  
another’s experience  
is to give us hope,  
not to tell us how  
or whether to proceed.”**

Peter Block



# **Mob Programming**

**All the brilliant minds working  
on the same thing...  
at the same time...  
in the same space...  
on the same computer...**



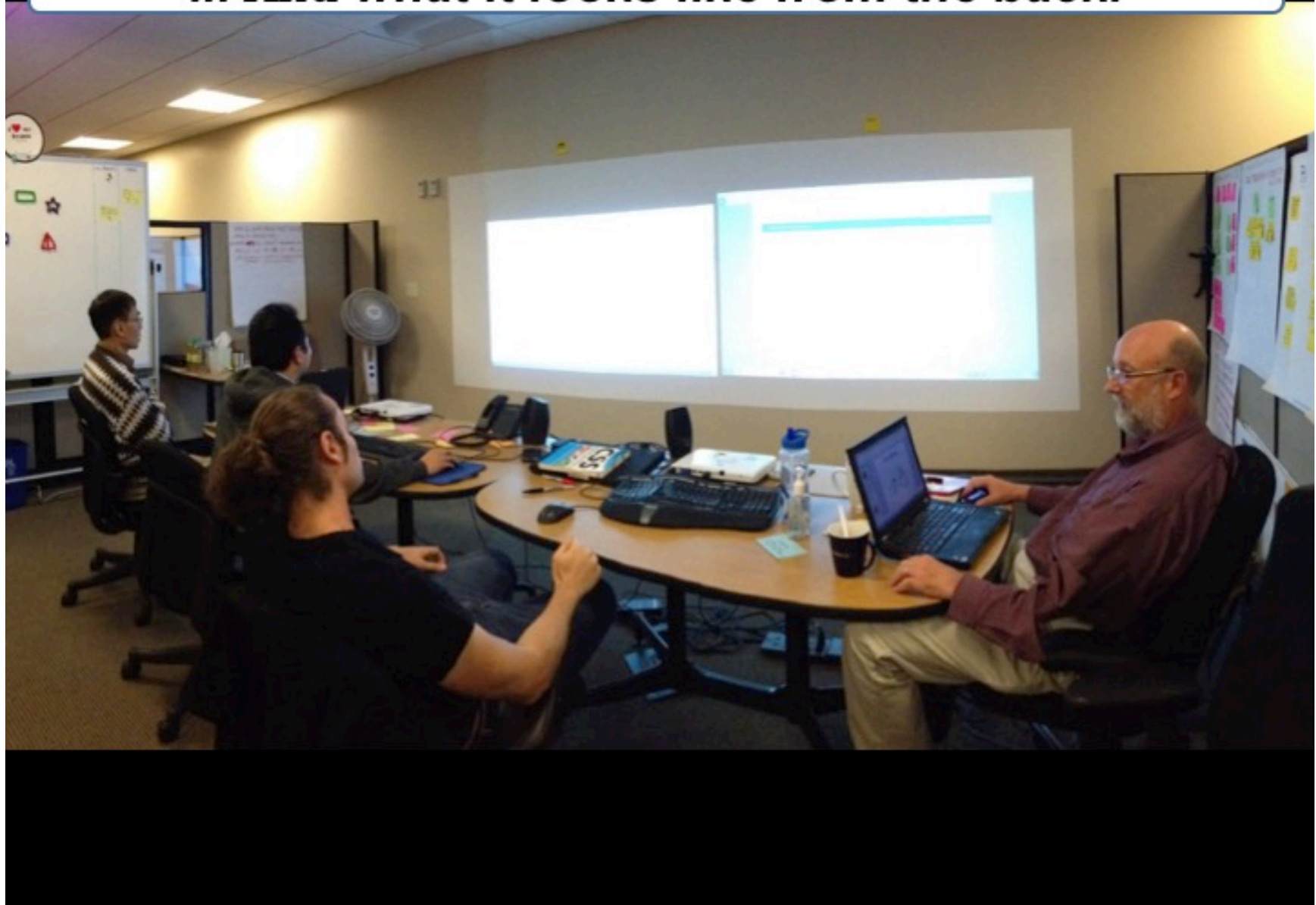
# **Completely Different, All Together**



***This is what it looks like from the front***



***... And what it looks like from the back.***







## ***You can also do this remotely... A virtual Mob***

The screenshot displays a remote development environment. On the left, the Atom editor's sidebar shows a file explorer for a project named 'corgibytes-com'. The main editor window displays the 'footer.html' file, which contains HTML code for a footer, including a copyright notice and social media links. The code is as follows:

```
1 </div> <!-- END Content wrap -->
2 <div class="push"></div>
3 </div> <!-- END Global Wrap -->
4
5
6 </div><!-- END Content Wrap -->
7 <footer class="footer-global">
8   <div class="footer-wrap">
9     <span class="copyright">
10      Richmond, VA &copy;2008-{{ site.time | date: '%Y' }} Corgibytes, LLC. All
11    </span>
12    <ul class="social">
13      <li><a href="https://twitter.com/corgibytes" target="_blank" class="tw">T
14      <li><a href="https://www.facebook.com/corgibytes" target="_blank" class="
15      <li><a href="https://github.com/corgibytes" target="_blank" class="git">G
16    </ul>
17  </div>
18 </footer>
19 <!--[if lt IE 7]>
20   <script src="//ajax.googleapis.com/ajax/libs/chrome-frame/1.0.3/CFInstall.m
21   <script>window.attachEvent('onload',function(){CFInstall.check({mode:'overl
22 <![endif]-->
23
24 <!-- IE Fix for HTML5 Tags -->
25 <!--[if lt IE 9]>
26   <script src="http://html5shiv.googlecode.com/svn/trunk/html5.js"></script>
27 <![endif]-->
28
29
30
31
```

At the bottom of the code editor, the CorgiBytes logo is visible, along with the tagline 'old code new tricks'. The status bar at the bottom indicates the file is 'includes/footer.html' and shows a '1 update' notification.

On the right side of the screen, a video call window shows four participants: a woman at the top, a man in the middle, and two other participants at the bottom. A 'Screen Shot' overlay in the bottom right corner indicates the date and time: '16-04-2016 9:16 AM'.



# A Day in the Life...



# Driver/Navigator



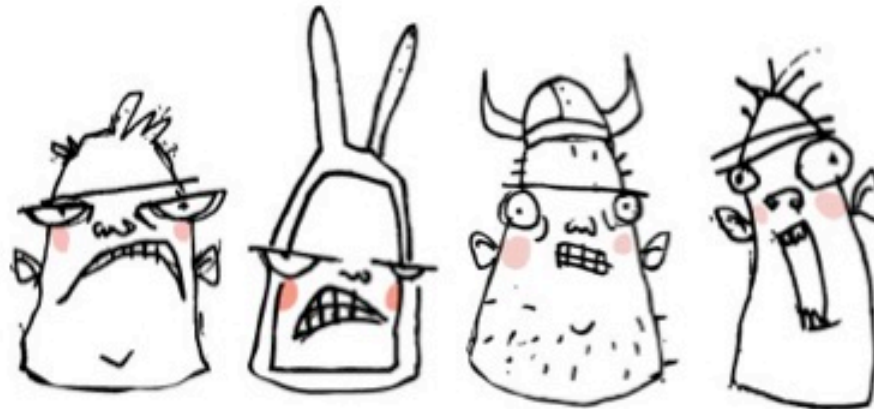
# Driver/Navigator



**Rotate  
Every 7-10 minutes**



**Driver**



**Navigators**



# How we “discovered” Mob Programming

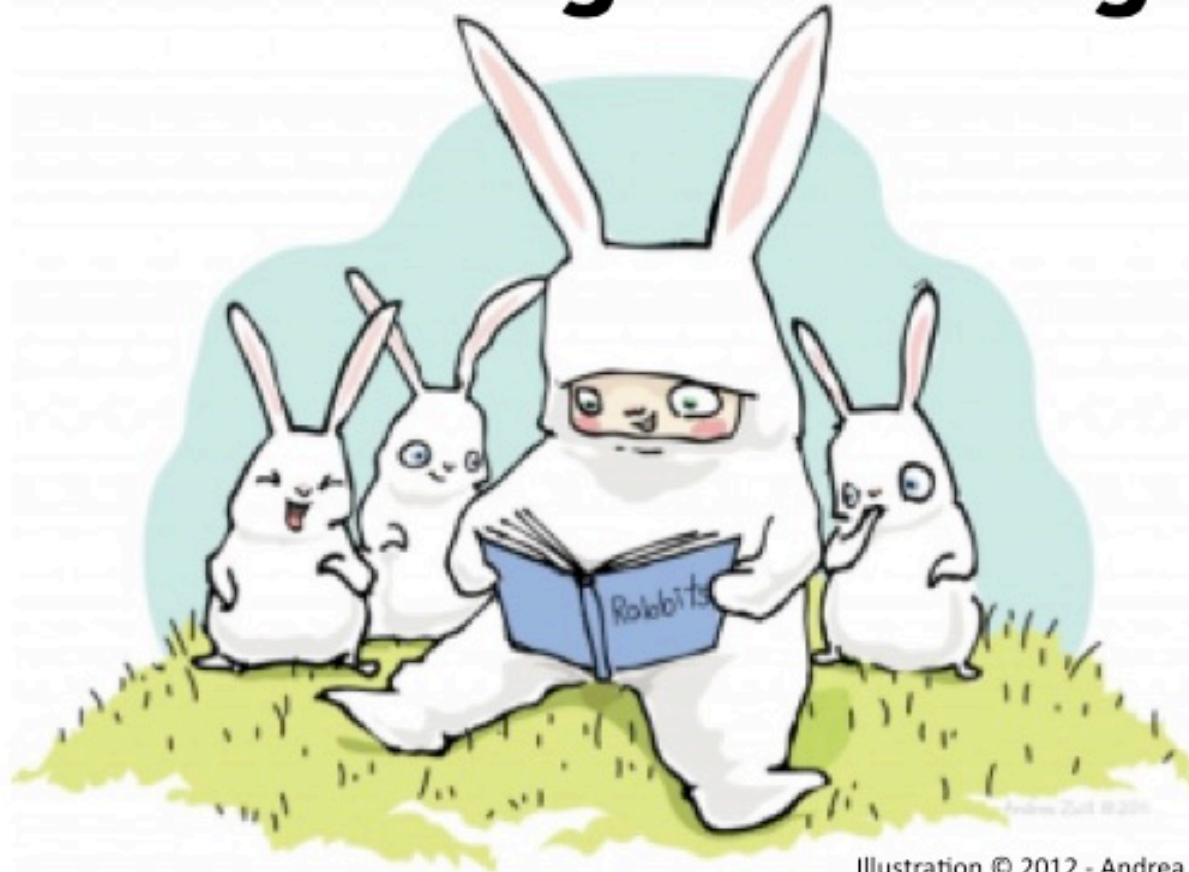


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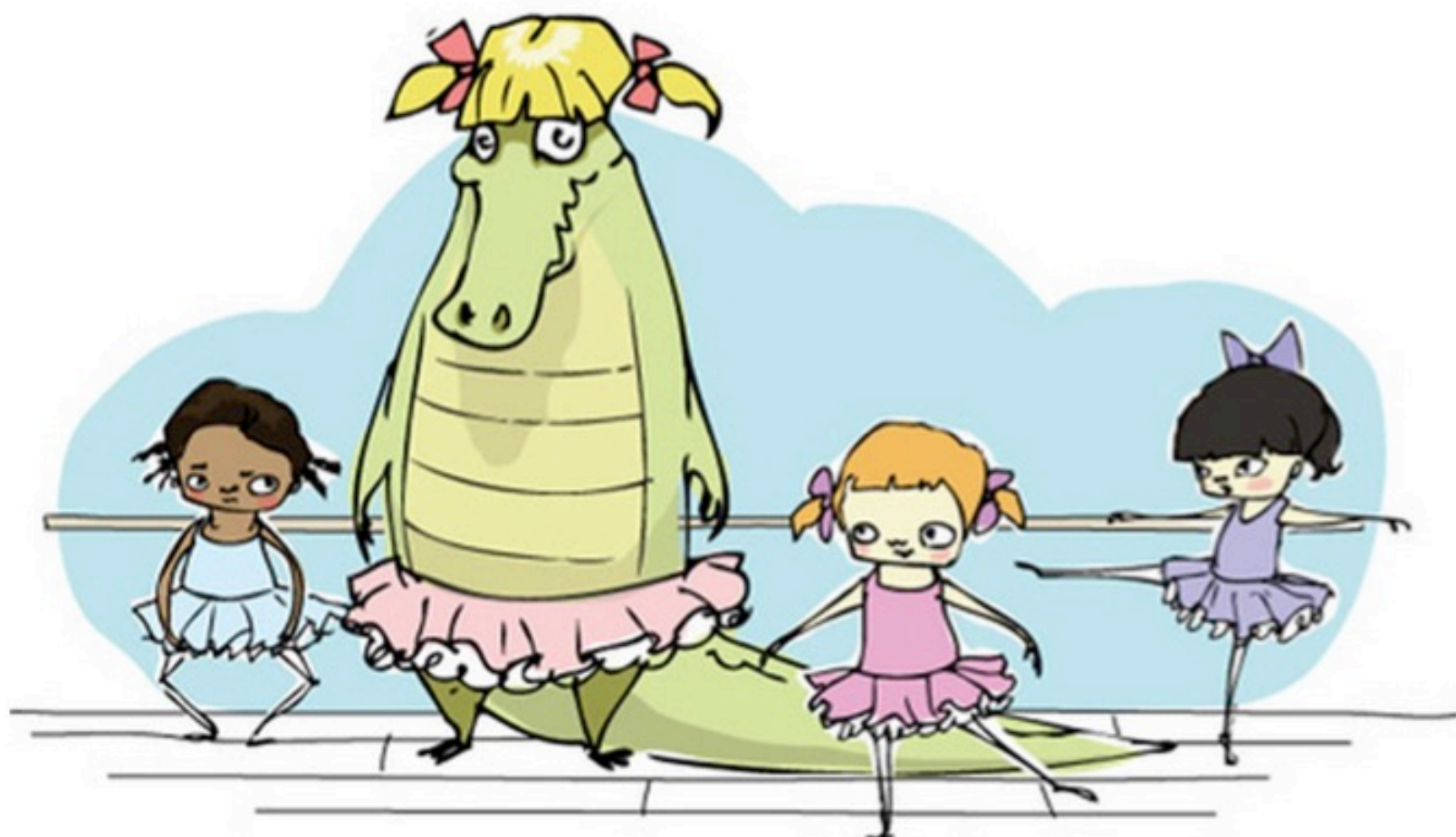


**The people doing the work can best  
determine how to do that work**





# Weekly Study and Practice Session



# Using a Coding Dojo style of deliberate practice



**We also focused on  
getting really good at  
getting good results  
from doing  
retrospectives**





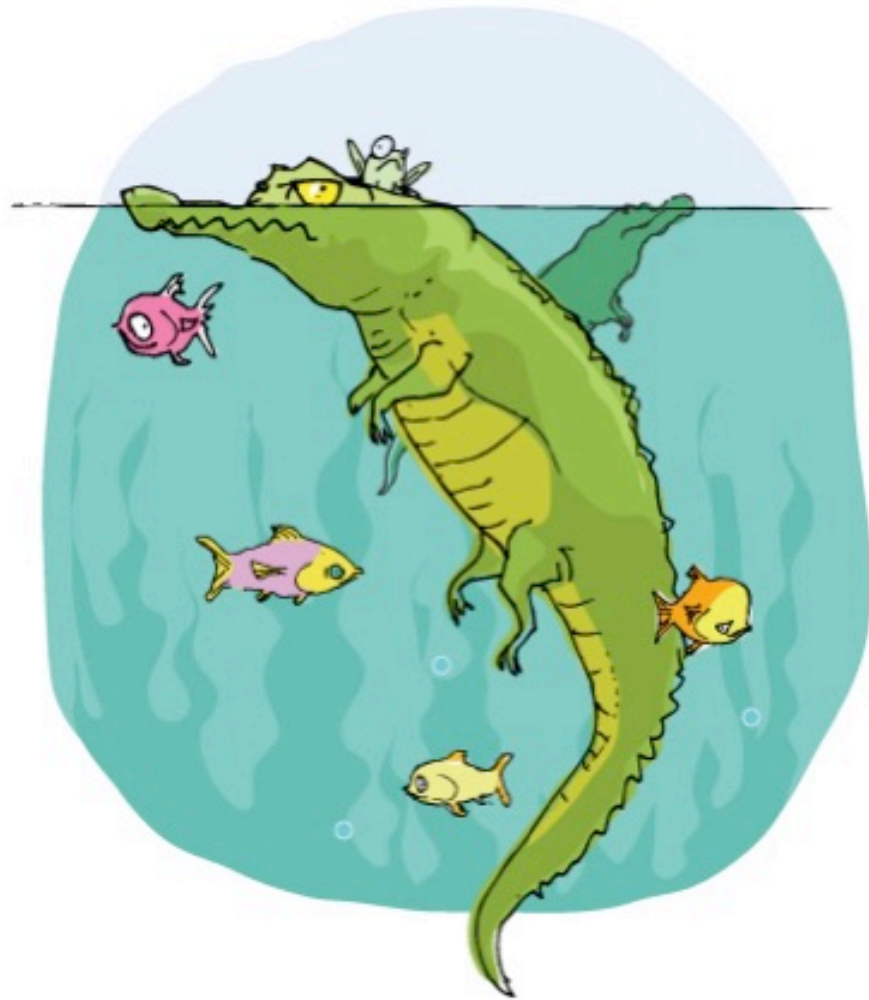
# Turn Up The Good



**Then one day...  
It was time to resurrect  
one of those  
Big, Nasty Projects**



**Lots of  
unknowns  
lurking  
under the  
surface.**



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# **We gathered everyone together**



**(For a meeting to re-familiarize  
ourselves with the project)**

# Working on it together



# This combination of little ideas...





**The object isn't to make art,  
it's to be in that wonderful state which  
makes art inevitable**

Robert Henri



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# That is how we discovered “Mob Programming”

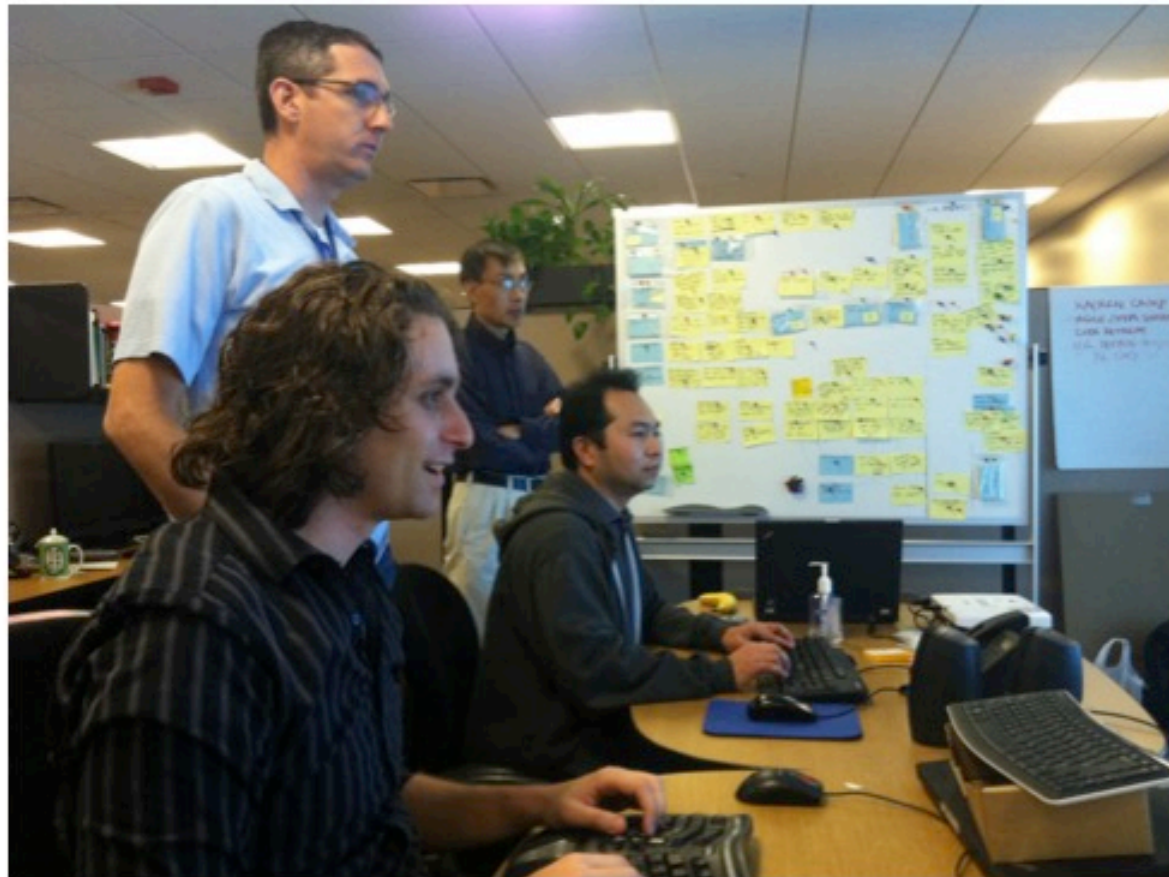


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**Why would we work this way?**  
**Because the team decided to.**





# How can we work this way?

**Individuals and Interactions  
Kindness, Consideration, Respect**





# Relaxed, Sustainable

Be prepared to  
Contribute  
The Right Thing  
At the Right Time  
In the Right Way



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# Productivity

How can we be productive  
with 5 people at one computer?



=



**“Transformation comes more from pursuing profound questions than seeking practical answers.”**

Peter Block  
Book:  
The Answer to “how” is YES!



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# **What are the things that destroy productivity?**

**Communication Problems**

**Decision Making Problems**

**Doing more than barely sufficient**

**Technical Debt, and etc.**

**Thrashing**

**Politics**

**Meetings**

**Many, many others**

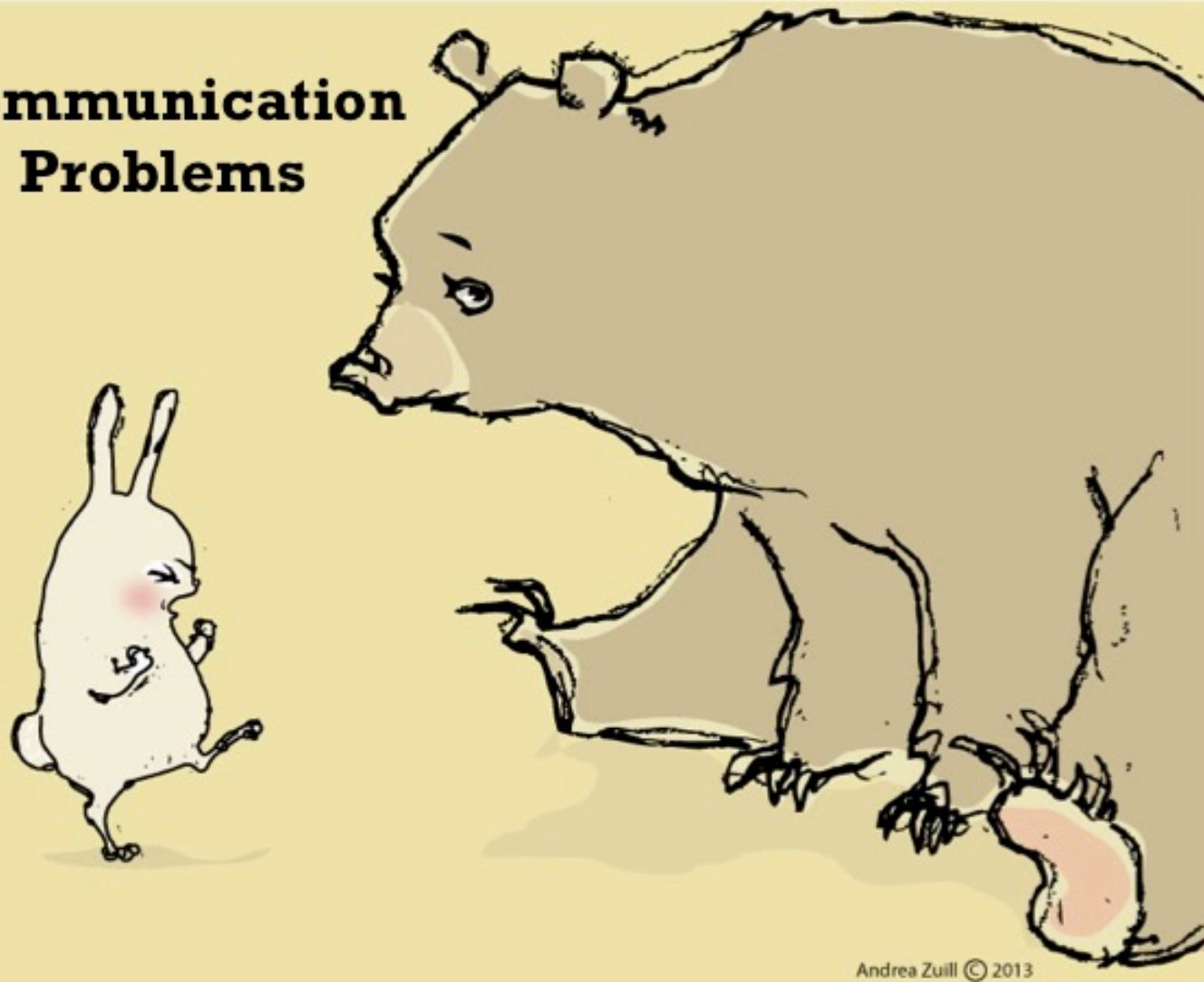




**We noticed many problems simply faded away when we started working as a team!**



## Communication Problems



## Question Queue Time

The amount of  
time we must  
wait to get an  
answer to a  
question that is  
blocking us



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# Question Queue Time

## Value Stream Map



**As an example:**  
**One Hour, One Question**



# Question Queue Time

Zero Queue Time – No Waste



Two Minute Queue Time – Wasting 16 minutes a day



Ten Minute Queue Time – Wasting 70 minutes a day



One Hour Queue Time – Wasting 4 hours a day



One Day Queue Time – Wasting the whole day!!!



# How do we typically solve this?

The task we are blocked on



We increase inventory so we can stay busy



Now we are “busy”, but still blocked!



**We've solved for the symptom  
and not the problem.**

**Symptom? – *Not Busy***  
**Problem? – *Long time to get***  
***answers***

**Let's not solve a queueing problem by  
introducing an inventory problem**  
**(Inventory: Work started on, but not yet  
delivering value)**

# How did we Solve This?



**We didn't! It simply faded away.**

Zero Queue Time

---



Two Minute Queue Time



## “Automatic” One-Piece Flow



# Environment Of Continuous Learning



# A Learning Attitude



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# Exposed!



# Ergonomics, Health, and Sanity



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Let's take  
care of  
ourselves

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# **What is the Ideal Number of Team Members?**



**If you feel you are contributing or learning, stay with the team.**

**Do you recommend  
Mob Programming?**

**Rather than  
recommend it,  
we are merely  
sharing our  
experiences.**



The background of the slide is a collage of several photographs. The most prominent ones show whiteboards covered in numerous yellow and pink sticky notes, which are typical of a retrospective meeting. One sticky note clearly reads 'Benefits - Test Specifications - Regression Variability'. Another note says 'ESTIMATES...'. There are also photos of people sitting at tables, engaged in discussion. The overall scene is a busy, collaborative workspace.

**If You Adopt  
But One Practice,  
Let It Be  
Retrospectives!!!**

**Pay attention to  
what works,  
and  
Turn It UP!**



Andrea Zuill © 2013



# Illustrated by Andrea Zuill

Children's book illustrator and author

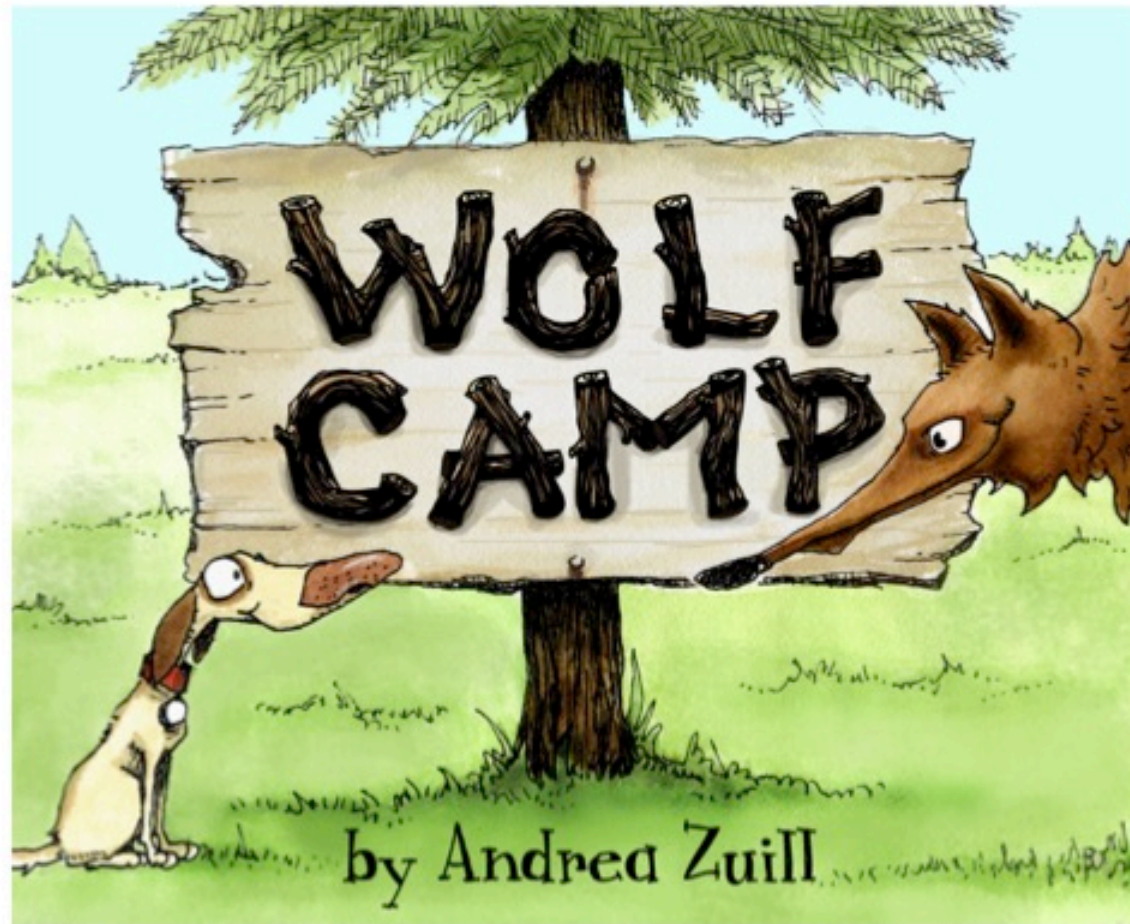
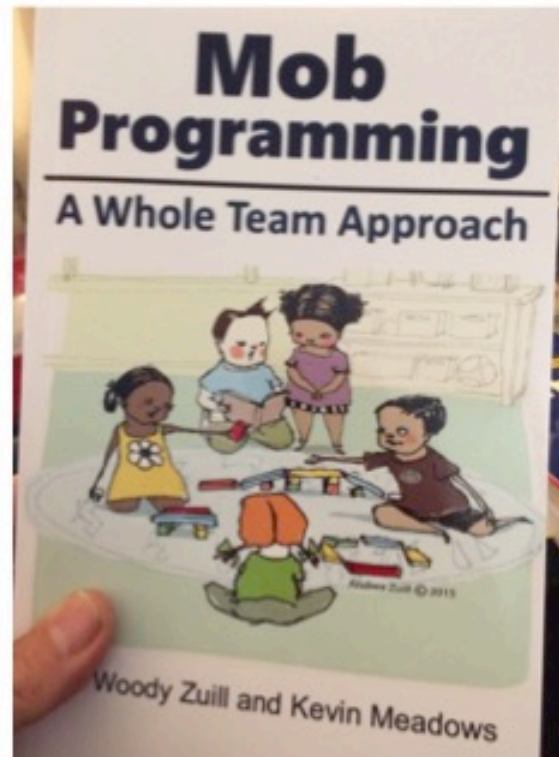


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# Mob Programming Book



**[www.Leanpub/mobprogramming](http://www.Leanpub/mobprogramming)  
[woody.zuill@gmail.com](mailto:woody.zuill@gmail.com)**

# **Mob Programming**

## **A Whole Team Approach**



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