A Mob Mentality Five Years On

Oli Wennell @owennell





Hi everyone, thanks for coming

I'm here because 5 years ago, someone in my team suggested we try something radical.

Apparently over on the west coast of the USA, there was a team that weren't just pair programming.

They were all working together on the same thing at the same time on the same computer

The idea was mob programming, also known as mobbing

I thought:

Never gonna catch on Totally impractical

And yet...

five years later, the idea's not so radical anymore.

It spread around the world



I'm Oli Wennell, a tech lead at comparethemarket.com We're a price comparison website We're the ones with the adverts on the telly Meerkat adverts, that is

So that's me, now a bit about you.

Could I ask, how many of you have heard of mob programming before?

How many have tried it?

How many use it regularly?

Ok, thanks

Three Examples

@owennell



I'm going to tell the story of three groups of people at comparethemarket

They all tried mobbing I'm going to talk about what went well what went...not so well and what they learned

I'm hoping that these will encourage you to give mobbing a go, or if you already have, find ways to experiment and perhaps make your mobs even better.

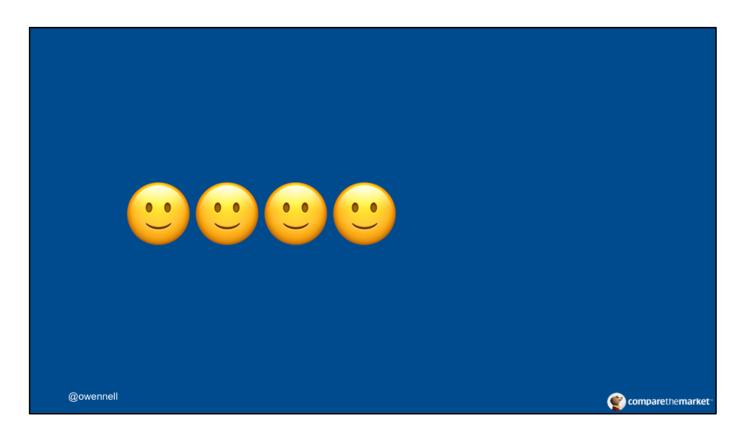
If you have any questions, I'd be happy to answer them at the end Or come up and talk to me afterwards, I'm here for the whole conference

Mob Number 1 The New Team

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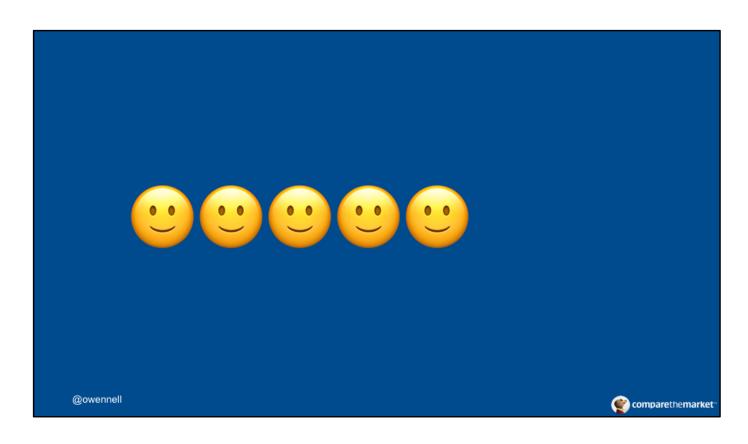


new team created to gradually rewrite a key system

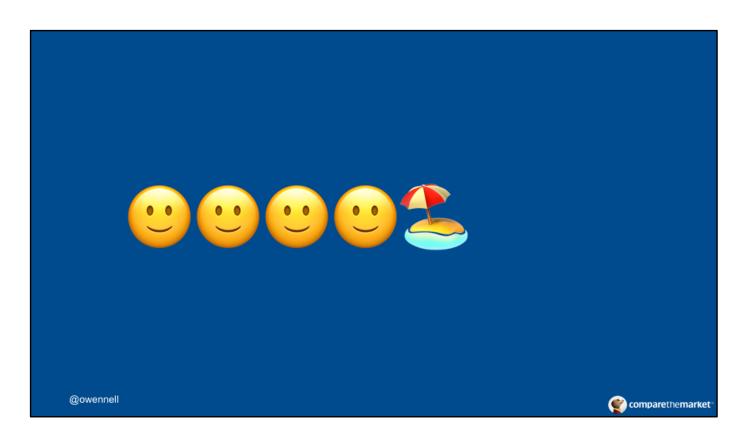


i am one of the developers (I'm the one that's smiling)

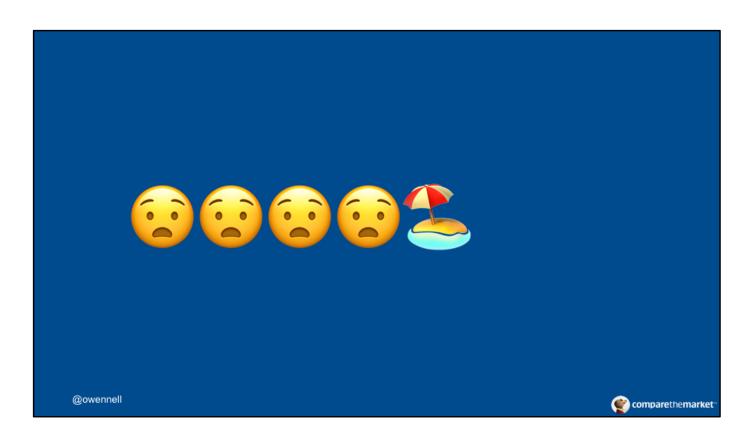
We all know bits about domain, tech stack



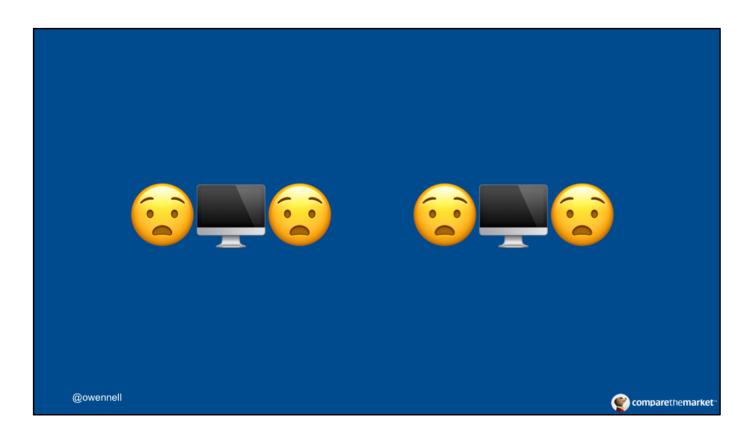
Luckily we also had an expert in the domain/the existing system



One day, the expert went on a long holiday



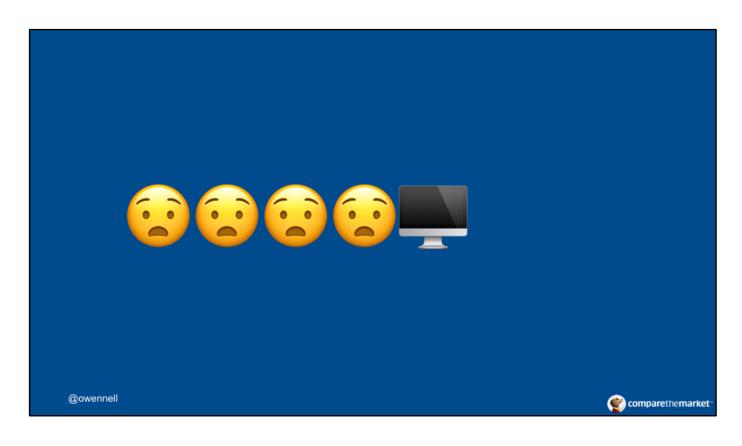
And we very quickly got stuck



We are doing pair programming
Two people to one job
One person types, or "drives" and the other person navigates, or says what to do.
Usually the pair swap after a while.

But knowledge is spread around the team. And need to get agreement on things. Each pair keeps interrupting the other. Frustrating.

We tried having sessions but we would have questions soon after the sessions.



So someone said

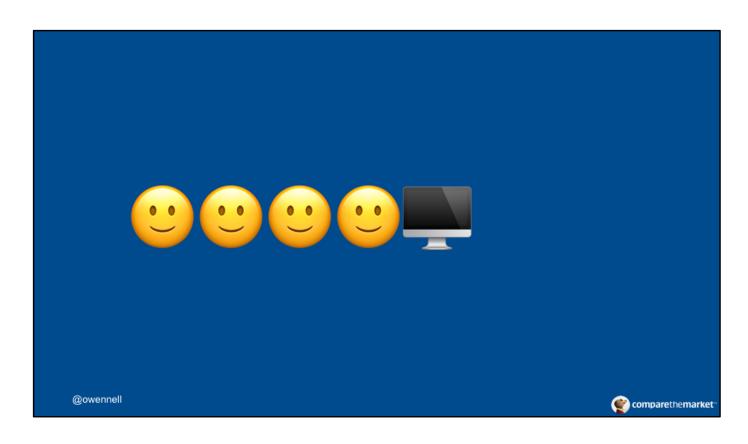
"There's this idea, where we all work on the same thing at the same time"

We were quite frustrated, so we thought we'd give it a go

Mob Programming @wennell

If pair programming is when two people work together on a task at the same time. Then mob programming takes it to the next level By adding more people

One person still drives, but there are more people there to support that driver



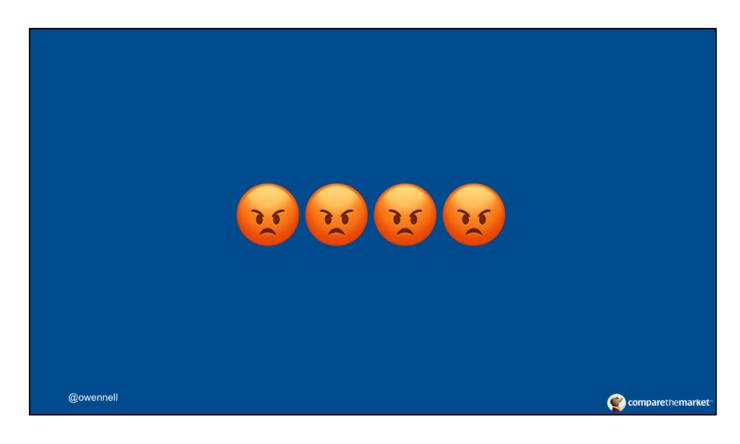
And we loved it



Now, mob programming is a bad name And that's because your first reaction when hearing about it may have been...



Gangster movies



Or masses of angry people with pitchforks



Whereas actually, mobbing is the opposite of these things. It is designed to be an inclusive way of helping people work together in harmony. There may or may not be actual unicorns. But I wouldn't rule out unicorns being able to contribute to a mob.

"There are only two hard things in Computer Science: cache invalidation and naming things."

Phil Karlton

@owennell

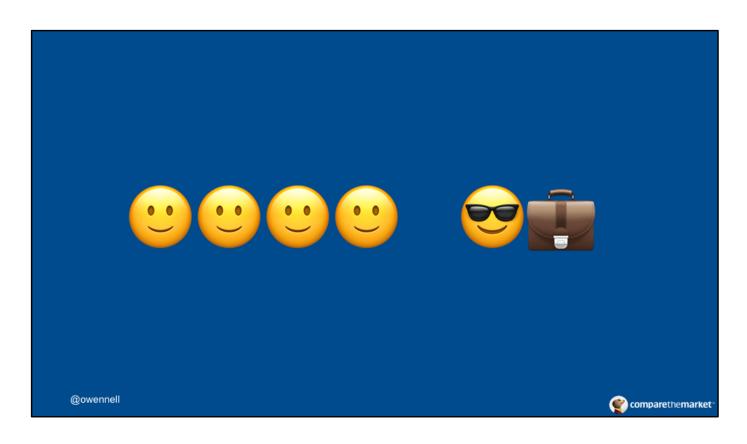


There's a famous quote about this, which is...

There are only two hard things in Computer Science: cache invalidation and naming things

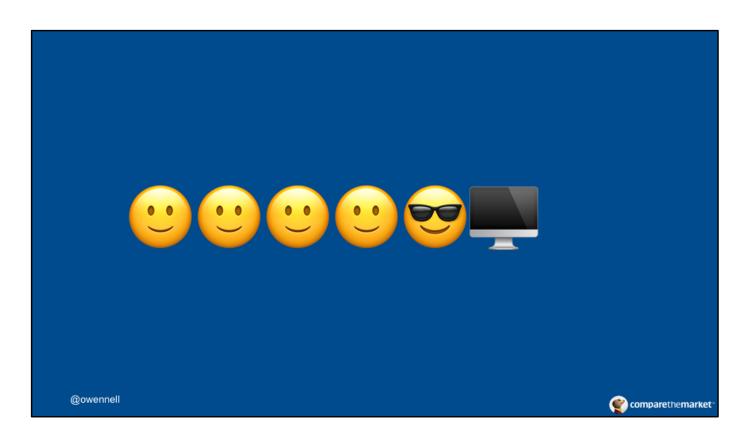
And I guess that applies to techniques as well.

But...I think we're stuck with the name

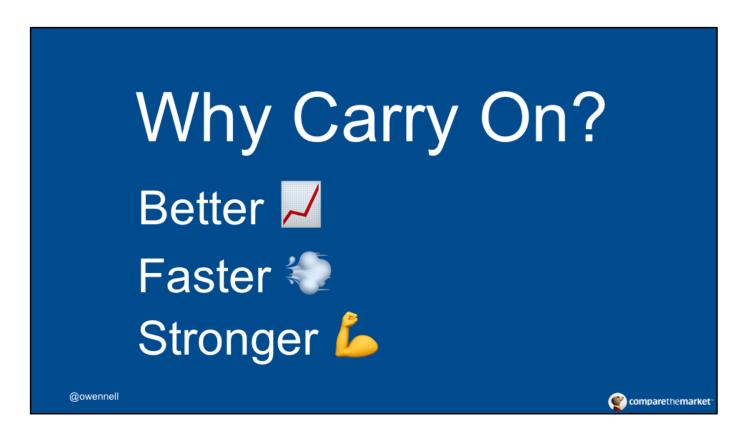


Anyway, back to the team.

And the expert is back from holiday, hooray!



But instead of going back to our old ways, we continue mobbing



Why would we carry on, now that we have the expert back?

It's because we noticed that when we were mobbing we were: Better Faster and stronger



code quality - all eyes on every line, more chance of spotting better ways everyone's context of domain, tech, techniques - the wisdom of the crowd etc



Mobbing is a way of shortening feedback loops

Decision making in real time instead of meetings Code reviews in real time instead of a bottleneck



Bus factor improved, everyone has context all the time Less impact when people are off

Team is new but we get to know each other quicker by working together so much



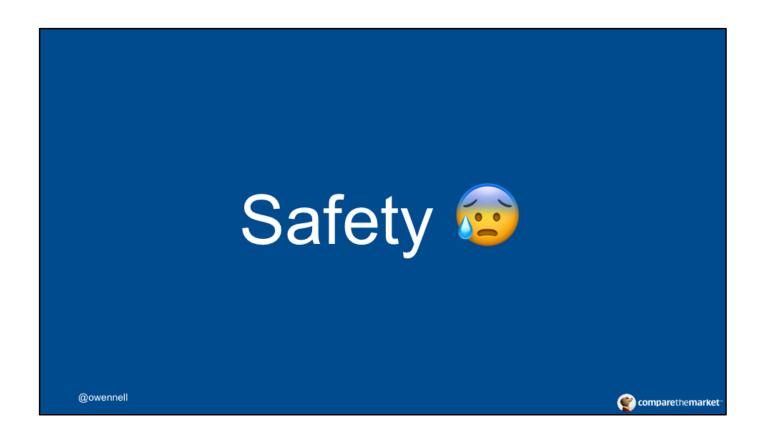
But we started to find there were some tricky aspects about mobbing



Mobbing is intense

Conversation with multiple people instead of just your pair Going on for too long, we'd get exhausted

So we started to take regular breaks And keep sessions short, say 30 minutes.



Mobbing can be intimidating

Imagine if you are new to a particular language, or framework And you're asked to code with the entire team watching And the experienced people are saying "do this, do that, no like that"

We don't want people to feel stressed or nervous We want people to be at ease so they do their best work

We found it important to have psychological safety
To be kind with the driver
To be patient with the driver
Pairing well is a skill. This is even more important in a mob

Mob Number 1 Amplification

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So we learned how to mob and we love it! Better code Happy team

Mobbing takes all the good things about pair programming and amplifies them But, if you're not careful, it can amplify the bad things too

Mob Number 2 A New Role

@owennell



Now onto the second mob

This time they were an established team

It's a bit later on, and I was in a new role. A tech lead.

I was really pleased because the team have heard about mobbing and are starting to try it out.

They like it too.

And also, as a tech lead, the team mobbing suited me, because...



There's much less context switching.

With pairing, I need to keep an eye on multiple pairs, to see if they need help or are going down a wrong path.

With pairing, we can have multiple stories in flight that need to be coordinated and deployed and so on.

But with mobbing, there's one thing going on at a time.



As a tech lead, I'm often popping out to meetings
If I keep leaving a pair, it can be disruptive.
So to avoid this I'll often find myself picking up small jobs on my own, rather than being a bad pairing partner.

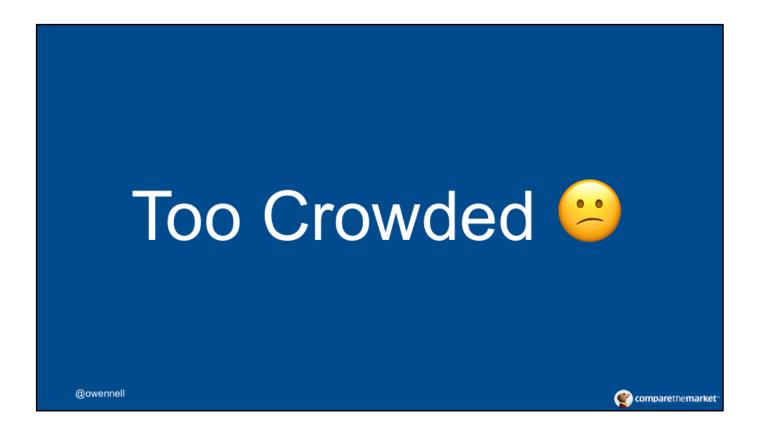
But with a mob, it's much easier to dip in and out. Because when I leave there's much less of an impact. And so mobbing helps me stay technical.



Part of my job is to help the developers on the team improve. With pairing, I don't get much of a chance to see how they work But with mobbing, I can see the entire team at once.



But we came across some problems I hadn't seen before



The team needed some specialists, and it started to grow. Our first reaction was to get them to join the mob.

But it started to feel crowded

Hard for everyone to contribute People were starting to disengage And it was hard to physically fit everyone around the screen (it was a big screen!)



Established team, existing systems that needed small updates Mobbing not as valuable because it was well known, established, not interesting The team tried mobbing on these, but it was quite dull. Again it was hard to stay engaged.

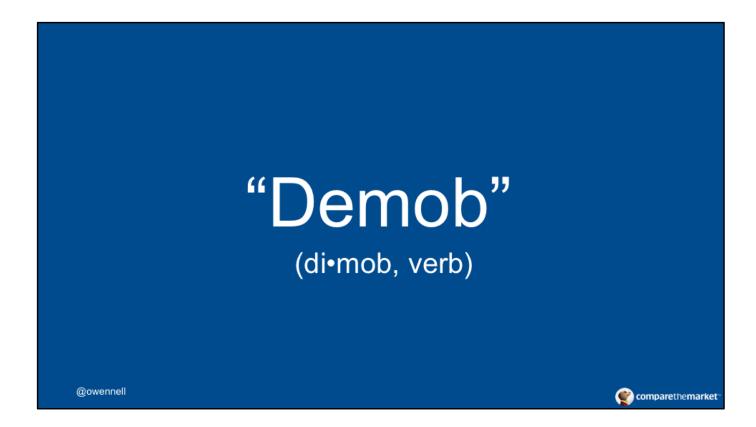


Things we were all new to Research

New Phrases @ownnell

Luckily we found ways to solve these problems.

These are best summed up by a couple of phrases to our team's vocabulary.



The first was "demob"
Which means to split up a mob

I think we've got a good idea of how this will work end-to-end now. Let's demob, one pair finish the frontend, one finish the backend.

If we need to use an unfamilar bit of tech – lets demob, read the docs, then come back later and share what we found

Someone from another team has a question about the library that we wrote – I'll demob and show them, you folks carry on mobbing

"Mobabble"

(mobb•a•ble, adj)

@owennell



The other term was "mobbable" Whether a story is worth mobbing on.

This story coming up in the next sprint will require a big refactor, it's definitely mobbable.

I thought this story would be easy, so started it on my own. But there's lots of edge cases I hadn't considered. I think it's mobabble now.

Mob Number 2 Right Team, Right Job

@owennell



So mobbing has started to spread. It works in multiple teams It helps teams and those on the edge of teams, like myself as a tech lead.

But a flaw was that we got fixated on mobbing as being the only way to work. We had a hammer, and everything we saw was a nail.

We got better when we started treating mobbing as a tool, and continually thinking: what size team is right for this job, right now

Mob Number 3 The Dojo

@owennell



So the next mob isn't a team in the traditional sense It's a coding dojo



A coding dojo is where people get together to practice programming.

They do it to learn, to teach, and to have fun.

Earlier this year I setup a dojo in my office
It runs every Friday for 90 minutes
People from around the company come along
We work on katas, which are small programming challenges, together.

Experienced ©owennell

A lot of dojos will have people working on their own, or pairing But by now, mobbing has spread around the company Most people who come along to the dojo will be used to mobbing regularly, or at least have tried it.

So I thought, let's try mobbing in the dojo. And it worked really well, for the reasons I've talked about earlier. Especially in a coding dojo, it accelerates the learning process.



But a coding dojo is different to a normal team environment



First off, although there are some regulars, we get different people at most sessions. So we have to be able to start working together quickly, because we only have 90 minutes



Also, imagine there's only one person in the mob who understands how to solve a problem.

If that one person is doing all the talking, or maybe also doing the typing as well, it's hard for the others to stay engaged.

Woody Zuill, who was part of the first team that did mob programming, calls this "Programming Theatre"

Now programming theatre is fine for, say a demo, where an expert shares their knowledge.

But to get the best out of everyone, we'd rather everyone was involved.



It's good for a mob to debate things.
That's part of what makes mobbing useful

But it's especially important in a dojo, to not go on for too long., otherwise we'll spend the entire dojo talking.

We need to be able to quickly come to a consensus.

Continuous Improvement

So as before, we changed how we mobbed to try and address these issues.

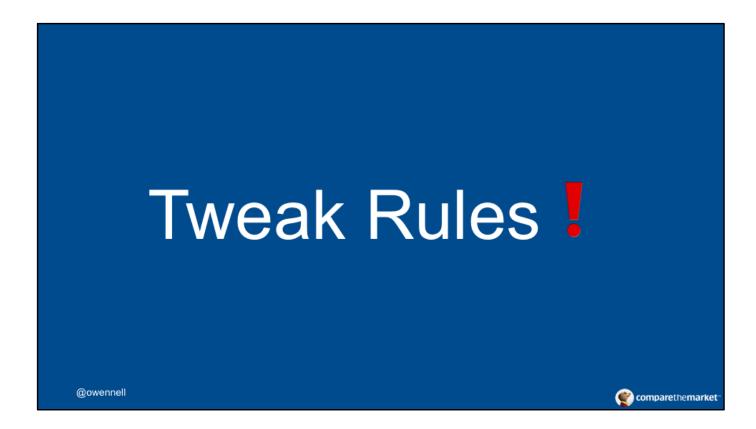
@owennell



Strong style is a technique where you make the roles of the driver, who types, and the navigator, who says what to to, strict.

The driver is just typing

In the case where one person is the expert, when they're driving, it encourages others to speak.



As well as following rules more strictly, we also tried tweaking other rules.

Wheras in a normal team environment, we might swap the driver every 30 minutes or so.

In a dojo environment, we found shorter rotations, say 10 minutes were better to mix things up

We'd have micro retros after each rotation.

We also experimented with rules that make things fun but also each new skills, like today no using the mouse, we've got to figure out all of those keyboard shortcuts today no if statements are allowed



Like any other kind of meeting, a facilitator can get the best out of people

They can suggest things when they get stuck

They can help when people can't agree

They can encourage people who are a bit quiet to give their opinions

Mob Number 3 Experiment

@owennell



The dojo is a bit of an extreme situation: potentially strangers building something together in 90 minutes

But what we learned can be applied to normal teams, which is that we should experiment

Every mob is different, so it makes sense to experiment and find the process that make your mob work the best.

And this process needs to continually evolve as the team and the situation change. Good facilitation helps teams do this.

The first bit of the agile manifesto says "We are uncovering better ways of developing software"

And what's best for me may not be what's best for you.



I've talked about three mobs over time, but mobbing isn't done People are still trying new things.



I've been in mobs where some or all of us are remote We use screen sharing and voice chat to mob together and it works ok

If anyone's ever had remote meetings, you get the same kind of issues Connections can be unreliable And you lose being able to use body language to communicate

But I'm hoping this can get even better, with more reliable connections Maybe even VR will allow us to use body language after all



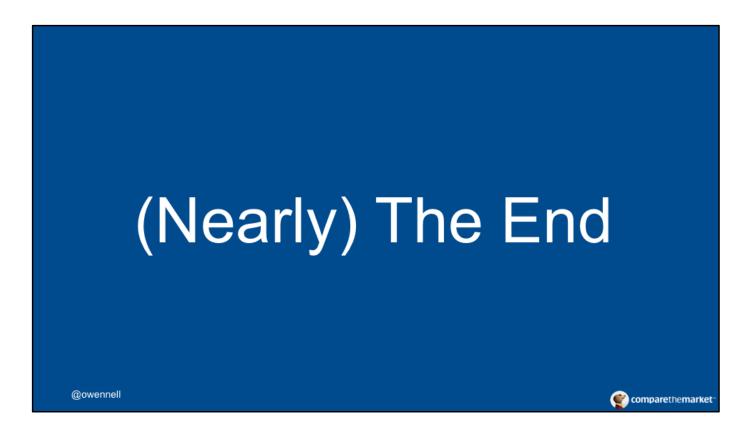
The tools out there are evolving too

IDEs are starting to allow you to share your editor with others, so they can drive too There are tools like mobbing timers, to let you know when you need to rotate drivers



But best of all, there's a whole bunch of people around the world trying out mobbing They're experimenting and sharing their experiences

And we can all learn from each other



So it's nearly the end

Amplification Right Team Right Job Experiment

@owennell



Mobbing is an amplifier It amplifies good things, but beware of amplification the bad things too

Mobbing is a tool you can use at the right time and in the right place

Each mob, mobs differently. And that's a good thing. Find what works for you and keep experimenting.

Your Turn?

Pick a Topic Facilitate

@owennell



So maybe you've not mobbed before but you'd like to have a go?

First off you'll need to pick a topic. Maybe you could...

Do a kata, to have fun and learn together

Or maybe there's some legacy code that people are scared to touch on their own

Or maybe there's a new technology the team needs to get up to speed with

And then help the team by being a facilitator
That could involve finding a nice place with a big screen for them to use
Encouraging them to take regular breaks and have a retrospective

Links

Mob Programming book on Leanpub

#MobProgramming on Twitter

remotemobprogramming.org

Mob Mentality Show on YouTube (I wasn't involved, the name is a coincidence! (a)

@owennell



And here are some links that you may find useful. I'll be tweeting these slides out on the Agile Cambridge hashtag on twitter shortly

Any questions?

Thank you