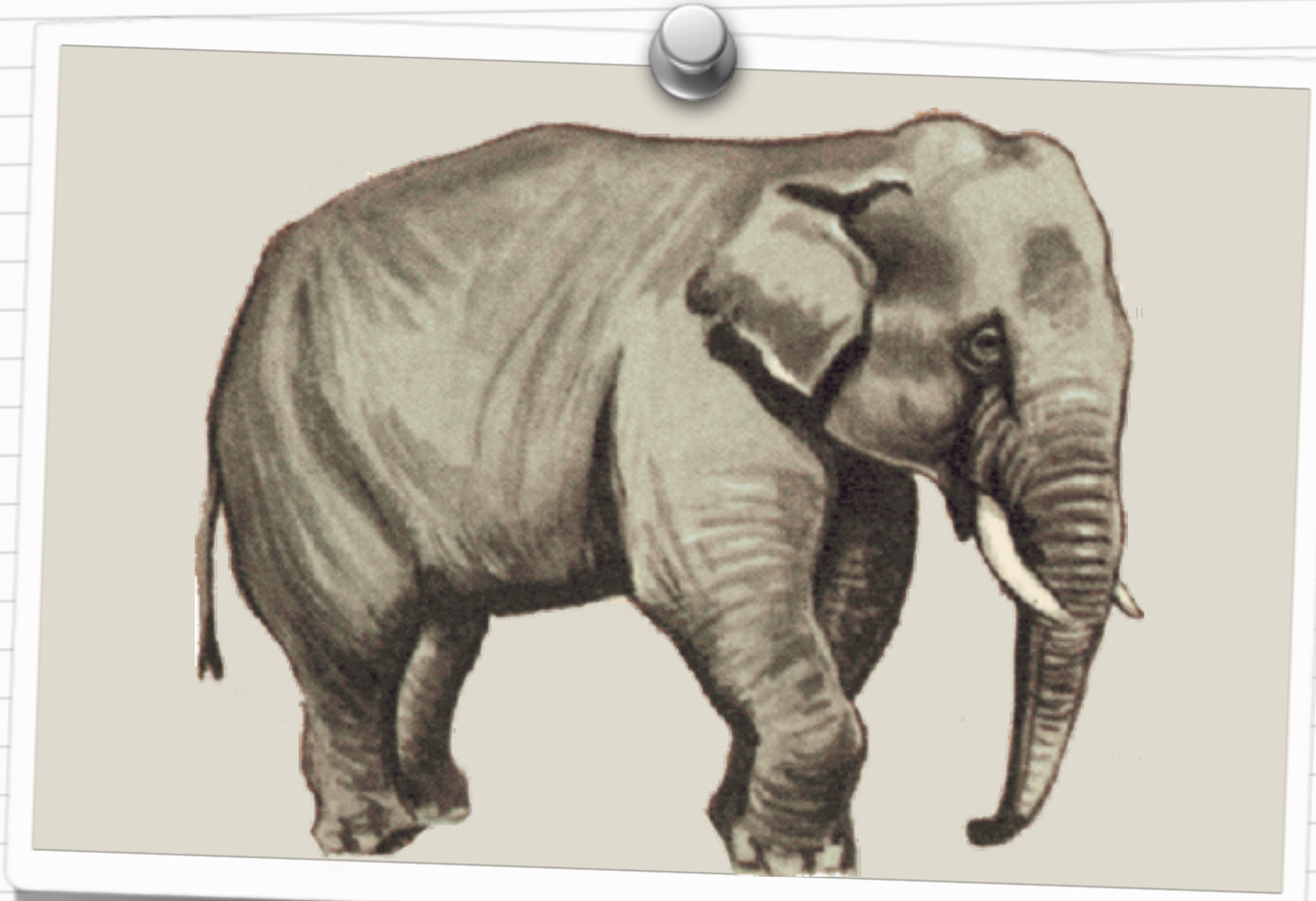
Agile Development, Project Management, and the PMI-ACP Certification



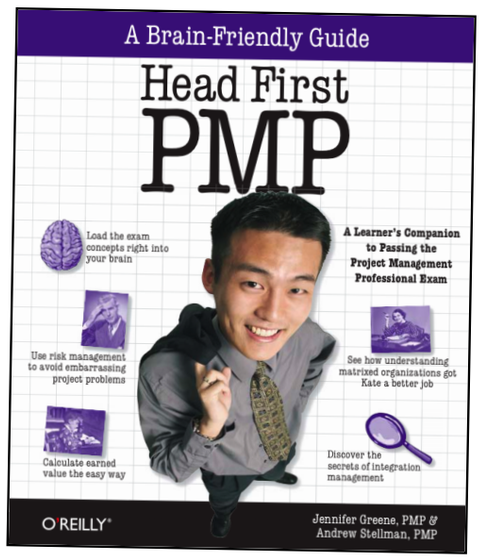
Getting Agile Right

Understanding the Elephant

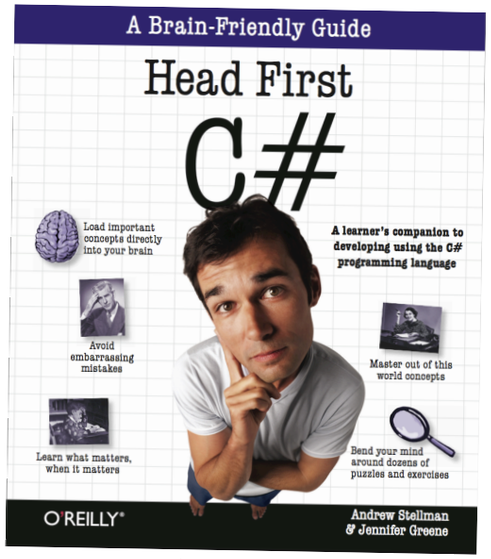
Andrew Stellman and Jennifer Greene http://www.stellman-greene.com

Jennifer Greene and Andrew Stellman have been building software projects and writing about project management together since they first met in 1998. Their first book, “Applied Software Project Management,” was published by O’Reilly in 2005 and received widespread praise from both working project managers and academic researchers. Their second book, Head First PMP, which is now in its second edition, has helped tens of thousands of project managers pass the PMP exam. Andrew and Jennifer have given talks at companies and conferences around the world.

2005



2007 (1st ed)
2009 (2nd ed)



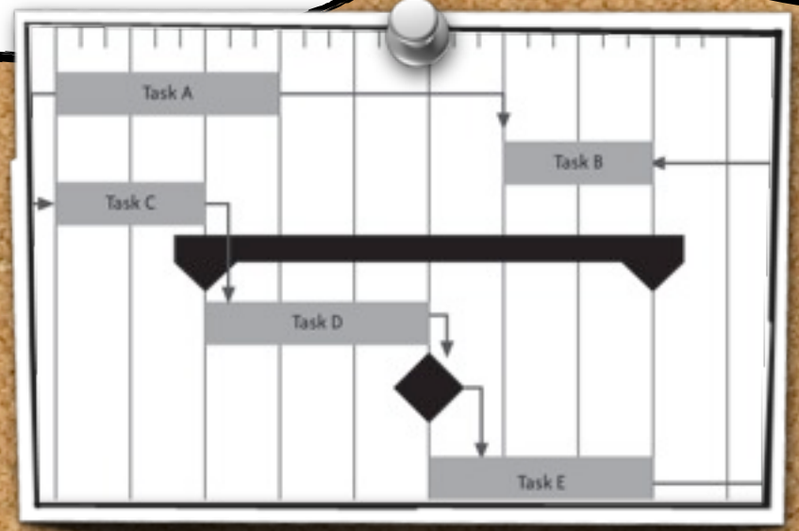
2008 (1st ed)
2010 (2nd ed)

2010

A waterfall process is causing problems for a team

Programmer

IF YOU'D TOLD ME WHAT YOU REALLY WANTED FROM THE BEGINNING, I'D HAVE BUILT SOMETHING COMPLETELY DIFFERENT! NOW I'VE GOT TO GO BACK TO THE DRAWING BOARD, AND THE CODE IS GOING TO SUCK.



WHAT DO YOU MEAN IT'S GOING TO TAKE ANOTHER SIX WEEKS JUST TO GET BACK TO WHERE WE WERE LAST WEEK? WHAT YOU BEEN WORKING ON THE WHOLE TIME?

Project Manager

Business User

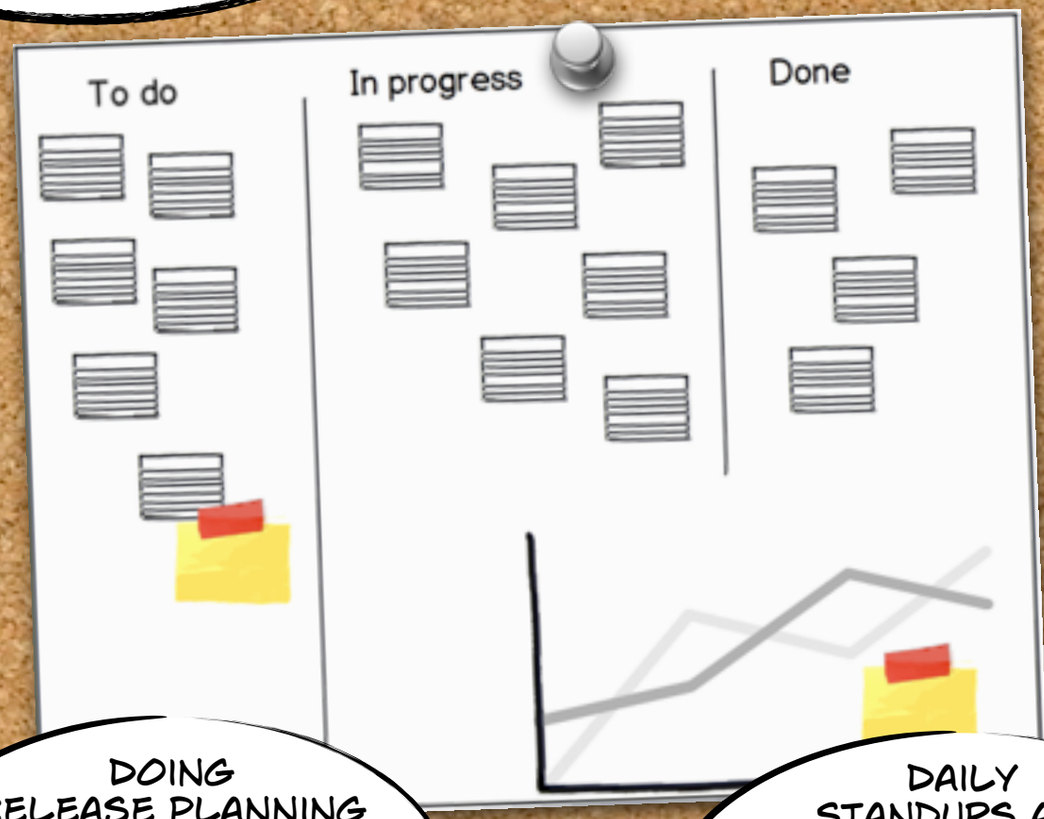
YOU KEEP BUILDING THE WRONG THING! CAN YOU JUST TAKE A LITTLE TIME TO UNDERSTAND OUR BUSINESS?

THE TEAM'S GETTING REAL TIRED OF THIS. KEEP MAKING THEM MISERABLE AND THEY'LL JUMP SHIP.

Team Lead

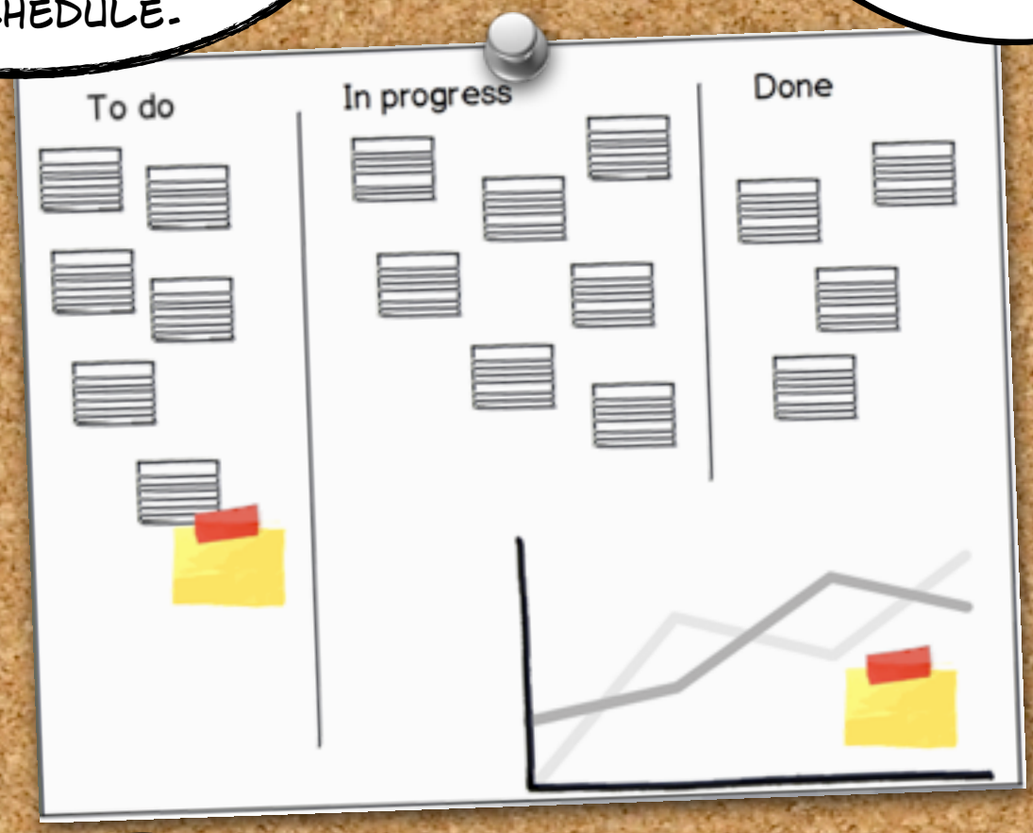
Changes happen to every project, but the way we used to run our projects seemed almost designed so that changes cause conflicts.

Agile to the rescue! (Right?)



Everybody wants something different from the project, and they each see a few practices that do something specific to help them.

Adding agile to projects makes a difference



It was definitely worth "going agile," but the team didn't get the "astonishing results" they expected. Is this really all there is to agile?

A lot of teams had this experience!

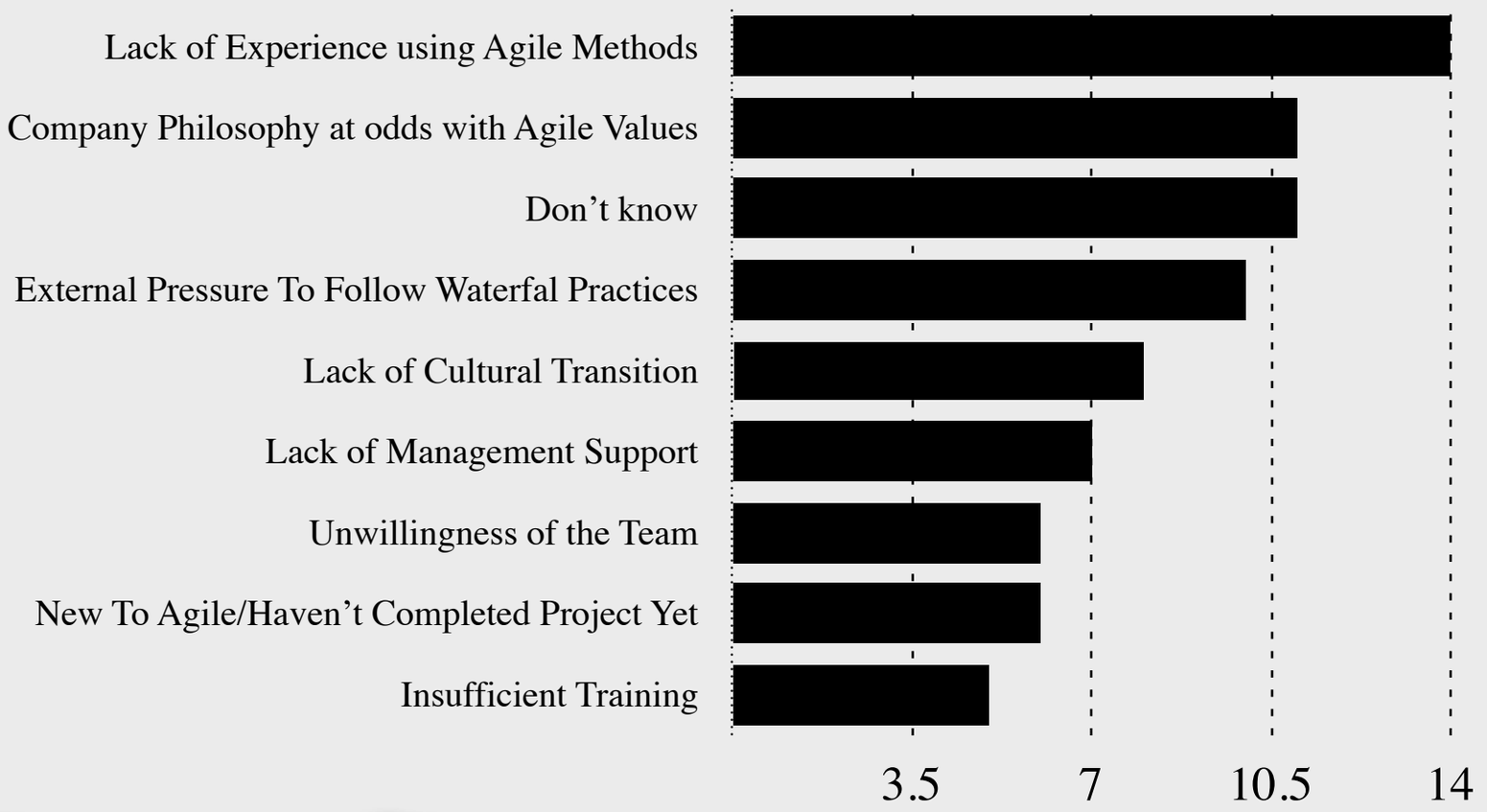
83%

Of respondents to the VersionOne State of Agile Development Survey 2010 felt that projects were the same or faster than non agile projects.

87%

Of respondents to the VersionOne State of Agile Development Survey 2010 felt that Agile Methodologies either improved or significantly improved their ability to manage changing priorities

Leading Causes of Failed Agile Projects



Teams do see benefit in time to completion and ability to respond to change, but when Agile projects fail it's often because of cultural and philosophical differences between Waterfall and Agile methodologies.

* Source: VersionOne "State of Agile Development" Survey 2010

"See! I was right all along!"

- When someone sees individual agile practices working, he recognizes that they take what works for him already and make it better by removing extraneous formalities. Now he's sold on agile, which is good!
- A team that already gets software out the door finds it easy to embrace the individual agile practices, because they provide improvements to practices the team already does.
- But nobody's really changed the way the build software. They've just made marginal improvements. In fact, each person is more convinced than ever that he was right all along, because he just thinks agile got everyone on board with his original ideas, and that's what made a difference.
- When the team brings fractured perspective to agile, they get mixed but better-than-not-doing-it results.

Why does a fractured perspective lead to just "better-than-not-doing-it" results?

- If I'm a project manager, then I naturally ask myself, "What does a project manager do in agile?" I'll try to do that job the best that I can.
- But if I only care about doing that job, I can overplan, and guide the team away from changes that might alter the plan.
- It's not just project managers. Programmers can goldplate, product owners can overreact to minor customer requests, testers can overautomate, architects can overengineer, team leads can micromanage.
- Just being really good at our jobs isn't enough to become hyperproductive. We need to find a way to all work together – in a way that lets us respond to changes.

Is there a way to "un-fracture" the team's perspective?

The Agile Manifesto helps teams see the purpose behind each practice

This is about getting everyone on the team talking to their teammates and understanding their perspectives instead of just hyper-focusing on one aspect of the project.

By keeping everyone focused on the end goals instead of stumbling on intermediate problems, the team an keep the project moving forward.

The Agile Manifesto

* Individuals and interactions over processes and tools
* Working software over comprehensive documentation
* Customer collaboration over contract negotiation
* Responding to change over following a plan

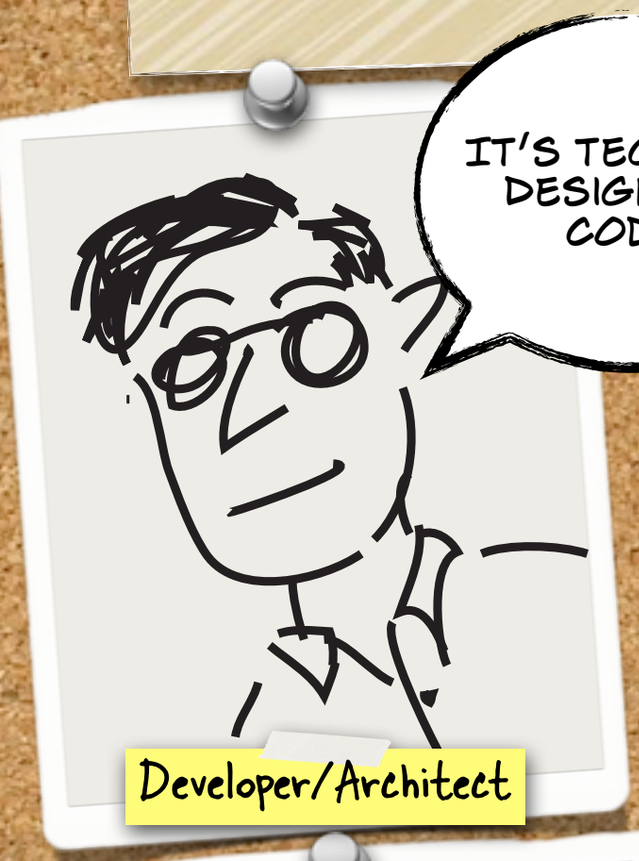
It's easy for a hyper-focused team to lose track of what the users actually need. This makes sure that the users' perspectives and ideas are genuinely represented.

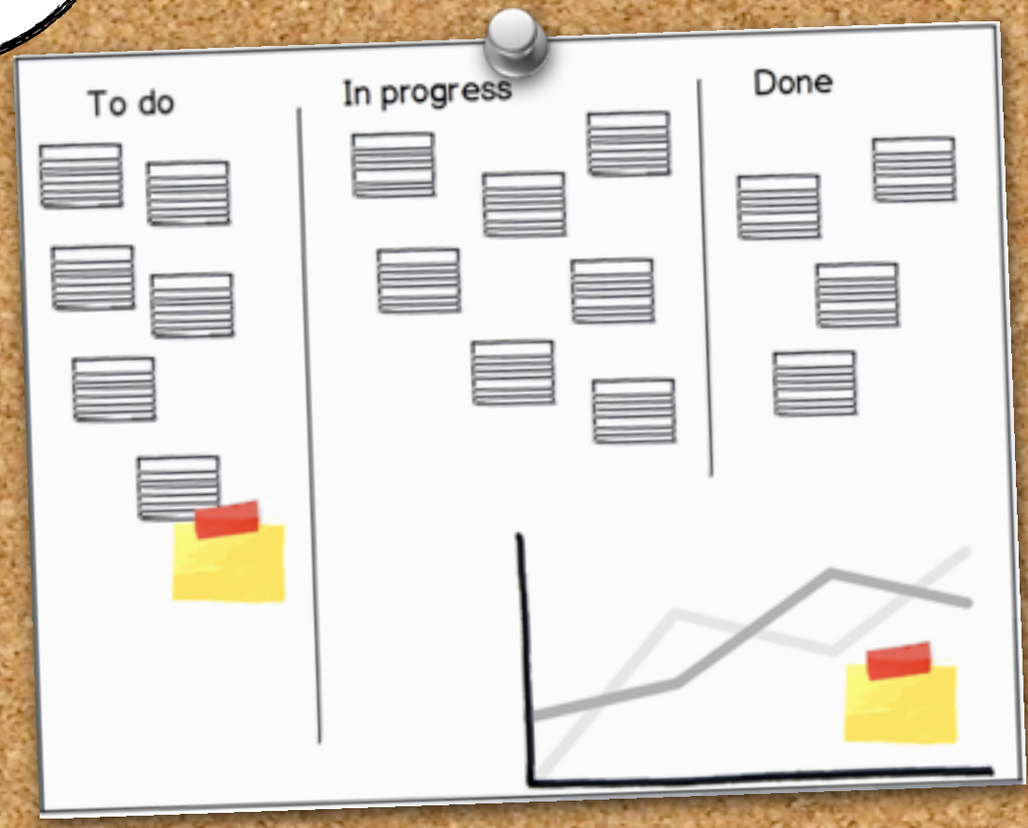
...because working the wrong plan causes the team to build the wrong software.

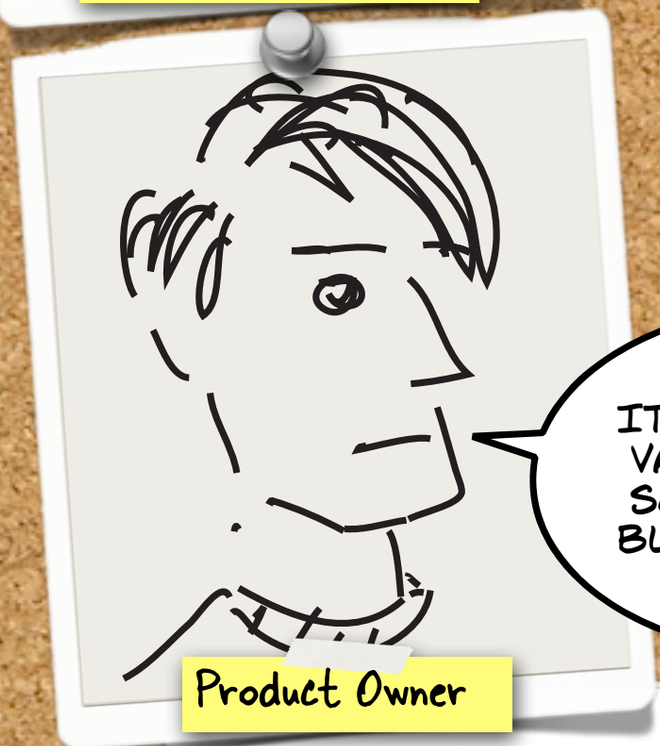
That's what "principles over practices" means

- Satisfy the customer through continuous delivery
- Welcome changing requirements
- Deliver working software frequently
- Business and developers work together
- Motivate people with environment, support, and trust
- Face-to-face conversation is most effective
- Measure progress through working software
- Use a process to maintain a constant pace
- Technical excellence and good design
- Simplicity is essential
- Self-organizing teams deliver the best designs
- The team regularly reflects and adjust

Everyone sees the project from a different perspective





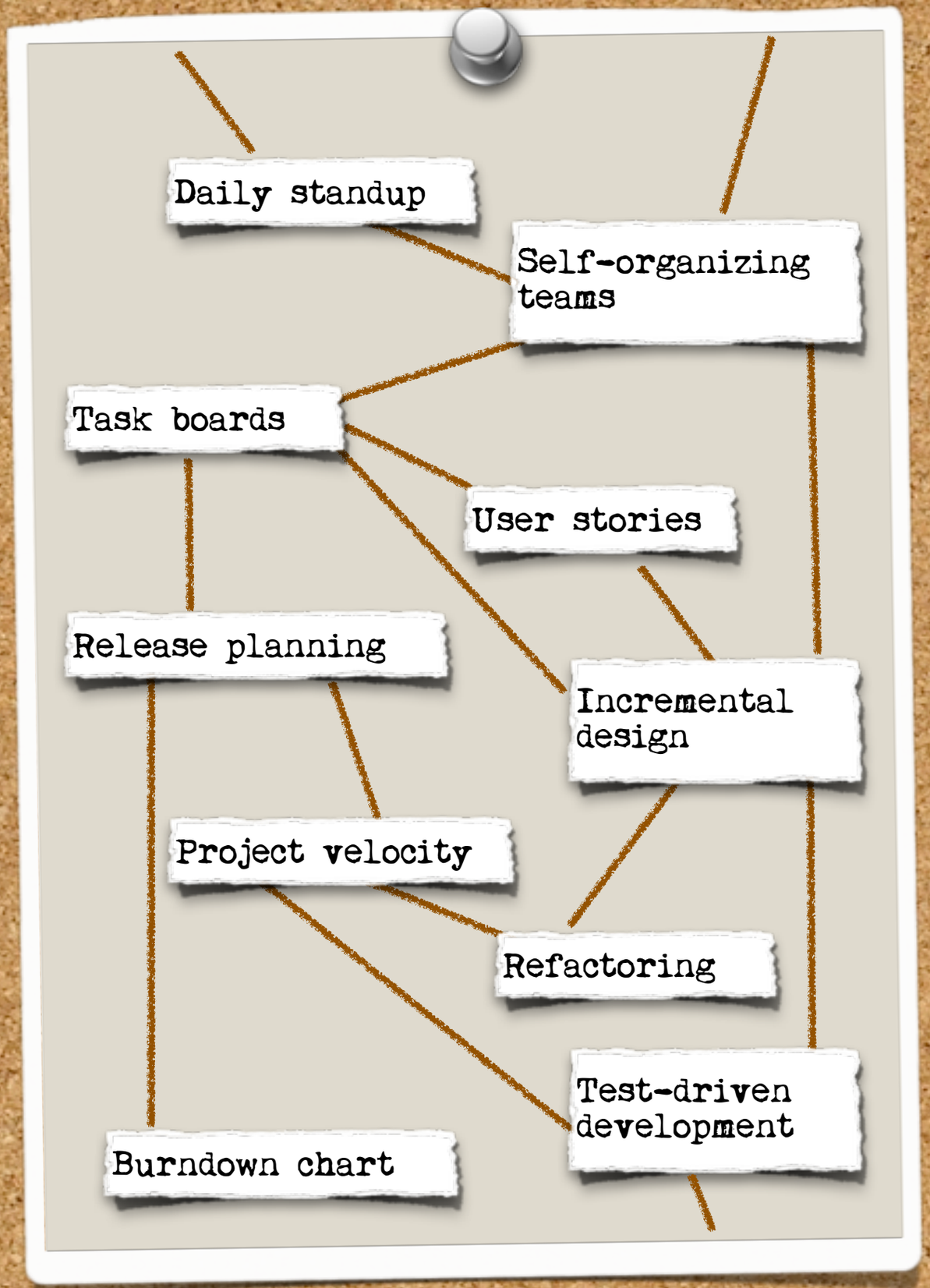


And they're all right... but none of them can see the whole picture alone -- and that's why the adoption somehow feels incomplete.

Everyone sees the project from a different perspective

"All of you are right. The reason every one of you is telling it differently is because each one of you touched the different part of the elephant. So, actually the elephant has all the features you mentioned." - http://en.wikipedia.org/wiki/Blind_men_and_an_elephant

Agile is made up of many practices but it's more than just the sum of those practices



Greater than the sum of the parts

The team understood some relationships between practices right away...

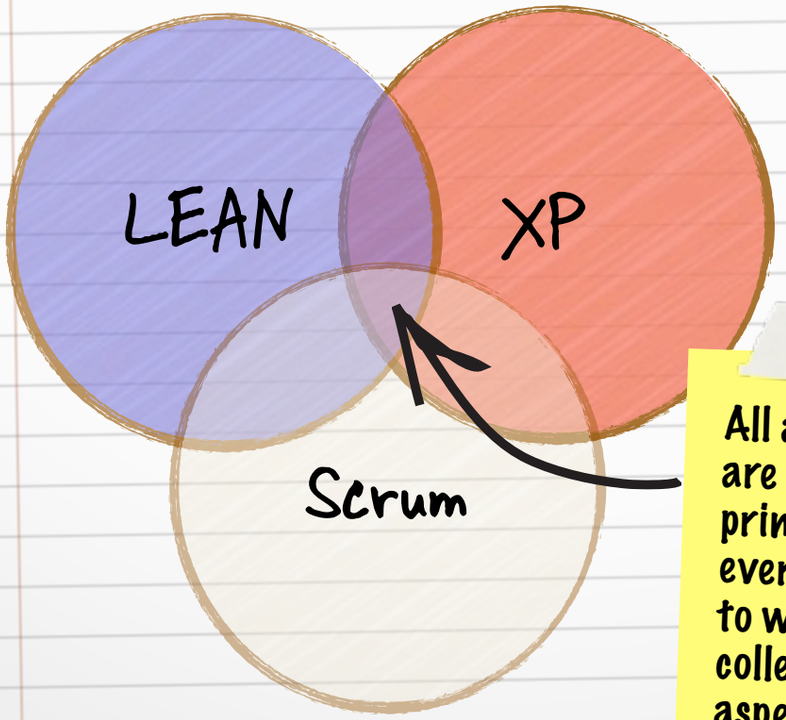
- Task board organizes user stories
- Release planning gives a big picture for task board
- Burndown chart and project velocity help check release planning goals

...but there's so much more at work

- Self-organizing teams manage their work with task boards
- Daily standup help teams self-organize
- User stories and the task board drive incremental design
- Incremental design allows self-organizing teams to build robust architecture
- Test-driven development and refactoring enforce and expand incremental design
- Project velocity is impacted by TDD and refactoring work
- ... and more ...

Methodologies help you get it all in place at once

- Teams that pick and choose from the agile practices select only those practices that are similar to the ones they already have in place.
- They end up with an incrementally better version of what they have today.
- Adopting a whole methodolgy all at once fills in the missing links, and puts the team on the path to astonishing results.



All agile methodologies are based on the same principles, and rely on everyone on the team to work together and collectively own every aspect of the project.

"These roles, each one complete and strong in itself, do not stand alone. It takes all three, operating well together, to give teams a chance at creating astonishing results and unleashing agile as a competitive advantage weapon for their company." -- Lyssa Adkins, *Coaching Agile Teams*

If you adopt XP incrementally, every new practice will disrupt the equilibrium you'll be fighting to achieve. You'll actually *extend* the period of chaos and uncertainty, making the transition all the more difficult. In my experience, teams that adopt XP incrementally make substantial improvements, but it's the teams that adopt it all at once that really excel." James Shore & Shane Warden, *The Art of Agile Development*

"People are guided by their value systems, so creating an agile team depends on aligning with a value system-- which is why implementing APM will be nearly impossible for some teams and organizations. APM is value driven because people are are value driven . A team can employ agile practices but it won't achieve the potential benefit of agile development without embracing agile values and principles" Jim Highsmith *Agile Project Management*

The PMI-ACP certification gives us a framework for learning

- You and your team have a better chance of succeeding if you follow an existing methodology.
- But diving into agile from the top down can be overwhelming for a team. Even if you choose the right methodology, there are many different ways to approach it.
- If you're exposed to schools of thought, you can assess for yourself the strengths and weaknesses of each methodology and approach.
- PMI-ACP helps you understand the entire field and the many different views of agile, so you can choose the right methodology and approach for your team.
- Employers know that someone with a PMI-ACP credential has a broad-based understanding of the agile principles, and how they apply to real-world projects.

How to apply for the PMI-ACP certification

PMI Agile Certification Eligibility Requirements

General Project Management Experience

2,000 hours working on project teams. These hours must be earned within the last 5 years.

Agile Project Management Experience

1,500 hours working on agile project teams. These hours are in addition to the 2,000 hours required in general project management experience. These hours must be earned within the last 2 years.

Agile Project Management Training

21 contact hours; hours must be earned in agile project management topics

source: http://www.pmi.org/en/Certification/New-PMI-Agile-Certification.aspx

PMI-ACP Certification Fees

Computer based testing	member	$435 / €365
Computer based testing	nonmember	$495 / €415
Paper based testing	member	$385 / €320
Paper based testing	nonmember	$445 / €370

source: PMI Agile Certified Practitioner (PMI-ACP)SM Handbook

You can download the examination handbook, get more information, and apply for the exam at the PMI website: http://www.pmi.org/agile

Questions?

- Keep an eye out for our next book, a guide to agile development, project management, and the PMI-ACP certification.
- It's due out in 3Q 2012 from O'Reilly!
- Contact us at our website: http://www.stellman-greene.com