Navigating the Future: Emerging Technical Trends and Practices

OnAgile
VIRTUAL CONFERENCE

Agile Alliance

May 14
2015

MAIN STAGE

Declan Whelan
Agile Coach, Leanintuit

Jeff "Cheezy" Morgan
Partner & CTO, LeanDog

9:00 AM - 9:15 AM EDT

Opening:

**"Navigating the Future:
Emerging Technical Trends and Practices"**

Martin Fowler
Chief Scientist, ThoughtWorks

Rachel Laycock
Market Technical Principal, ThoughtWorks

9:15 AM - 10:00 AM EDT

Keynote: "You can't be agile when you're waist deep in mud!"

To be effective with agile software development, you need to have solid technical practices. Rachel and Martin discuss this need, including testing, refactoring, continuous delivery and architecture.

Enjoy the contrast in perspectives between Rachel's up-to-date reality of working on projects with Martin's fading memory of past glories.

{ Take a networking break }
Hang out in the *Networking Lounge* or visit the *Experience Stage* to see real-world Agile in the wild.

Dr. Venkat Subramaniam
Founder, Agile Developer, Inc.

10:10 AM - 10:55 AM EDT

"Functional Programming: Technical Reasons to Adapt"

Functional Programming is gaining much needed attention. Most of the mainstream languages now support lambda expressions and programming in a functional style. But why should we program in a functional style? How does it help us create applications that are easier to change and easier to evolve? This presentation, using examples from Java 8, will focus on the key reasons to change the way we program, to code with a more functional style. Even though the examples will be using Java 8 programmers using other mainstream languages will benefit from this session as well. Please come to this 100% live coding with no PowerPoint presentation.

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J.B Rainsberger
Owner, Diaspar
Software
Services

11:05 AM - 11:50 AM EDT

"How TDD Will Save You From Yourselves"

TDD done well isn't just about eating your vegetables or being professional or programmer job satisfaction by writing elegant code. While I care about those things, my clients don't and shouldn't have to. I teach and advocate for TDD (and in particular relentless microtesting) as a way to help organisations save themselves from themselves. Diligent TDD practitioners not only smooth out the cost of new features, but they help stop their organisations from making the same old, tired mistakes that have most of the world distrust Agile Transitions and Agile Coaches. I'll describe how effective TDD practice contributes to improving the effectiveness of testers, product owners, operations/deployment, and even marketing and sales. Moreover, it helps extend the valuable lifetime of the system. I intend to show you why technical excellence is not just some ivory tower nonsense, but rather a thoroughly practical way to improve the profitability of your projects.

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Liz Keogh
Owner,
Lunivore

12:00 PM - 12:45 PM EDT

"Behaviour-Driven Development: Embrace Uncertainty"

BDD is a set of practices which help software development teams to have conversations about the behavior of their system and how it delivers value to the project stakeholders. BDD has changed from its early roots as a replacement to TDD and now works as a mini-methodology across the whole software lifecycle. Over the last few years the adoption of BDD has grown globally, with dozens of tools created, used by hundreds of projects around the world.

In this talk we look at the original reasons behind the creation of BDD, bringing the focus back to the language and conversations which lie at its heart. We look at how BDD's patterns can be applied at multiple scales – from the initial project vision all the way to the code – to deliberately discover and address uncertainty and risk in every aspect of software development, producing reliable, maintainable software that matters.

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**Elisabeth
Hendrickson**
Director of
Engineering,
Pivotal

12:55 PM - 1:40 PM EDT

"Exploratory Testing on Agile Projects"

Software is full of surprises. No matter how careful you are when writing code, it can behave differently than you intended. Exploratory testing mitigates those risks. Exploring is especially important to detect unexpected side effects on large, complex systems where it simply is not possible to reason through all the implications of a given change nor can automated tests cover all the interesting permutations. This session explains in detail how we use exploratory testing on Cloud Foundry at Pivotal. We have dedicated explorers who rotate through development teams, but everyone on the team explores. Programmers pair with explorers on executing charters, and explorers pair with programmers on feature delivery. We use charters to organize our exploratory efforts; PMs prioritize those charters in backlogs along with other stories. Along the way we'll contrast the way we explore on Cloud Foundry with other styles of integrating exploratory testing into an Agile team.

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Jez Humble
Vice President,
Chef (formerly
Opscode)

1:50 PM - 2:35 PM EDT

"How to build quality software and make releases boring with Continuous Delivery"

Businesses rely on getting valuable new software into the hands of users as fast as possible, while making sure that they keep their production environments stable. Continuous Delivery is a revolutionary and scalable approach to software delivery that enables any team, including teams within enterprise IT organizations, to achieve rapid, reliable releases through better collaboration between developers, testers, DBAs and operations, and automation of the build, deploy, test and release process.

I'll start by discussing the value of CD to the business, inspired by the lean startup movement. I'll then present the principles and practices involved in continuous delivery, including value stream mapping, the deployment pipeline, acceptance test driven development, zero-downtime releases, and incremental development. I'll cover how CD is enabled by an ecosystem including DevOps, cloud computing, agile testing, and continuous deployment. Finally I'll talk about how continuous delivery can co-exist with ITIL and compliance in an enterprise environment.

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Gene Kim
Independent
Director,
Energy Sector
Security
Consortium

2:45 PM - 3:30 PM EDT

"Top DevOps Enterprise Adoption Patterns: A Fifteen Year Study Of High-Performing IT Organizations"

Organizations such as Google, Amazon, Facebook, and Netflix employ DevOps practices to routinely deploy code into production hundreds, or even thousands, of times per day, while providing world-class availability, reliability, and security. In contrast, most organizations struggle to do releases more frequently than every nine months.

But DevOps isn't just for the unicorns. Increasingly, large, complex organizations such as General Electric, Raytheon, Capital One, Disney, Nordstrom, and Macy's, among many others in almost every industry vertical, are replicating the same amazing technology and organizational performance DevOps outcomes.

In his presentation, Gene will share the top lessons learned in his study of high-performing technology organizations, as well as the top principles and patterns, and how large, complex organizations are successfully adopting DevOps culture and work practices. These are the learnings that will be part of the upcoming *DevOps Cookbook*, which he is a coauthor of.

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Robert Martin
Owner, Uncle Bob Consulting LLC

3:40 PM - 4:25 PM EDT

Keynote: "The Future of Agile XXXXX Programming"

In this keynote, Uncle Bob takes us on a quick tour of the history of software, beginning in the late 40's up until today. Given this trajectory he then extends that forward to predict where we may be going in the future. The result may surprise you. What was the goal of the Agile Movement? Did it succeed? What about Software Craftsmanship? What is the future of these movements; and how do they relate to the future of programming, and programmers, in general?

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Declan Whelan
Agile Coach, Leanintuit

Jeff "Cheezy" Morgan
Partner & CTO, LeanDog

4:35 PM - 5:00 PM EDT

Closing:

**"Navigating the Future:
Emerging Technical Trends and Practices"**

EXPERIENCE STAGE

Woody Zuill
Senior Consultant, Industrial Logic

10:15-10:45 AM EDT | 12:15-12:30 PM EDT | 2:15-2:45 PM EDT

"Mob Programming: A Whole Team Approach"

Mob Programming is a development practice where the whole team works on the same thing, at the same time, in the same space, and on the same computer. It is a whole-team approach to doing all the work the team does including designing, coding, testing, and working with the customers, users and other stakeholders.

This is an evolutionary step beyond pair programming, and accentuates face-to-face communication, team alignment, collaboration, and self-organizing team concepts of the Agile approach to software development.

Using techniques and ideas such as "Driver/Navigators" collaboration practice, one-piece flow, sustainable work habits, continuous learning, and a philosophy of "getting along", Mob Programming can be a highly effective approach to software development. Whether done "all day, every day", or in a more limited way for special problems, kick-offs, and learning sessions, it can be a fun way to get work done.

Joe Moore
Agile Engineer, Pivotal Labs

10:45-11:15 AM EDT | 12:45-1:15 PM EDT | 2:45-3:15 PM EDT

"Remote Pair Programming: A Real-World Walkthrough"

Remote pair programming enables distributed teams take advantage of the benefits of pair programming. Joe has remote pair programmed full time since 2010 across many different operating systems and time zones. Joe will walk through both the non-technical and technical skills for remote pairing, including how to get started in common and not-so-common situations.

Davis Frank
Director of Internal Applications, Pivotal

11:15-11:45 AM EDT | 1:15-1:45 PM EDT | 3:15-3:45 PM EDT

"XP in the Wild: A Tour of Pivotal Labs"

Pivotal Labs is known for enabling clients around the world to use a sustainable, highly productive process built on XP. We teach our clients by bringing entire project teams into our environment where they develop their software every day with our process. Our offices are optimized so that teams can work together - planning, story-writing, pairing, test-driving, shipping, retro'ing all week long. Come see a short tour of a Pivotal office and ask me anything you want about how we work and why we work the way we do.

Robert Martin
Owner, Uncle Bob Consulting LLC

11:45-12:15 PM EDT | 1:45-2:15 PM EDT | 3:45-4:15 PM EDT

"Functional Programming Overview"

What, why, and when? This talk is for people who don't know much about functional programming, and who want to know what all the fuss is about. What is it? Why should I be interested? And when should I learn it?