

# Agile, Testing, and Quality: Looking Back, Moving Forward

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## Agility for Testers

Presented at PNSQC 2004 Elisabeth Hendrickson Quality Tree Software, Inc. www.qualitytree.com

#### New (or New-ish) in 2004



Agile-Testing Yahoo! Group Started (2001)

Agile Fusion (2003)

Watir released (2004)



Martin Fowler posts
"Mocks Aren't
Stubs" (2004)
Ken Schwaber, Agile Project
Management with Scrum (2004)





The Agile Development Conference and XP/Agile Universe Merged into the Agile20XX Conference s

First Agile Open Conference (Belgium)





Rick Mugridge and Ward Cunningham, Fit for Developing Software.



Dan North's article introducing BDD published in Better Software Magazine.

RSpec Released.

Selenium & Selenium RC Released.





Green Pepper Released.

Jonathan Kohl posts "Post-Agilism."

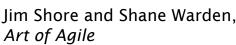




First Agile Open Northwest & Agile Open CA Conferences

Concordion Released

Lasse Koskela Test Driven







**TD-DT Summit** 

Agile Alliance Functional Testing Tools program founded, first meeting

Kanban takes root

#### Cucumber released





Twist released (early access)

Robot Framework open sourced





Slim update to Fitnesse

UX Community descends on Agile2008 conference. Alan Cooper keynotes.





Gojko Adzic, Bridging the
Communication Gap
Lisa Crispin and Janet
Gregory, Agile Testing
David Chelimsky, Dave
Astels, et al The RSpec
Roam Goucher and Tim Riley,
Beautiful Testing
Software Craftsmanship







Brian Marick starts the Artisanal Retro-Futurism crossed with Team-Scale Anarcho-Syndicalism (ARxTA) Movement

Agile Skills Project Launched

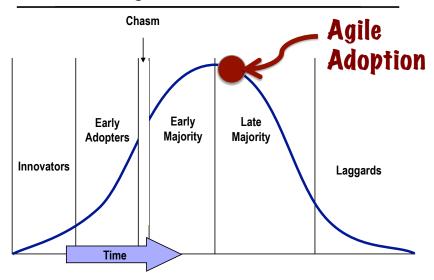
Conference

#### **Evidence of Widespread Adoption**

Methods and Tools Survey
http://www.methodsandtools.com/dynpoll/oldpoll.php?Agile2
In 2005, 55% reported investigating, piloting,
implementing/deployed Agile
In 2008 that number was up to 70%

2008 Dr. Dobbs Agile Adoption Survey
http://www.ambysoft.com/surveys/agileFebruary2008.html
"69% of respondents indicated that their
organizations are doing one or more agile
projects"

#### Agile is Mainstream



Source: Geoffrey Moore, Crossing the Chasm

#### And That Means...?



#### Well, er, no...

We can't do a full regression within the Sprint!

That's because it's a legacy system with no automation.

And we have too many more stories to do. Because the business insists they all have to be delivered this sprint.

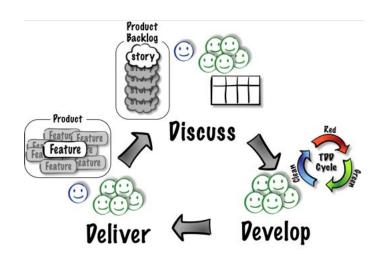
#### Agile Diluted

### frAgile ScrumBut Scrummerfall

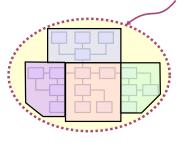
#### Eight Key Testing Practices in Agile

Exploratory ATDD TDD Testing Collective Automated Automated Test System Tests Unit Tests <u>Ownership</u> Rehearse Continuous Integration Delivery

#### Acceptance-Test Driven Development (ATDD)

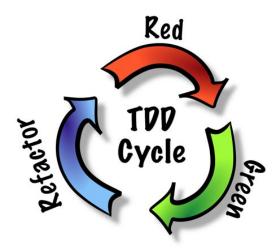


#### **Automated System-Level Regression Tests**

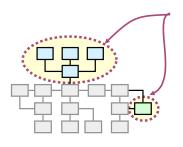


- Are business-facing, written by various members of the team in collaboration
- Express expectations about externally verifiable behavior
- Represent executable requirements

#### Test Driven Development (TDD)



#### **Automated Unit Tests**



- Are *code-facing*, written by programmers to support the coding effort
- Express expectations of the internal behavior of the code
- · Isolate element(s) under test
- · Execute quickly and often

#### **Exploratory Testing**



Simultaneously...

...learning about the software

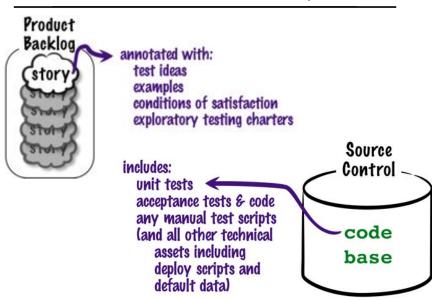
...designing tests

...executing tests

using feedback from the last test to inform the next

(See Jon and James Bach's work on Session-Based ET)

#### Collective Test Ownership



#### Continuous Integration (CI)

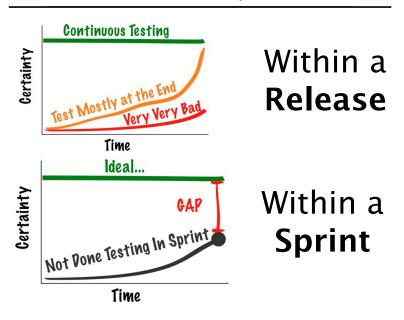
CI tools do automated builds, execute tests, and report the results





Developers practicing CI merge their changes locally & execute tests before checking in Until we ship or deploy, we don't know what impediments we'll run into on release.

#### Consider Certainty v. Time



#### What Does Agile Really Mean?

### Agile software teams...

- ...Deliver value in the form of releasable software at frequent regular intervals (at least monthly)...
- ...At a sustainable pace...
- ...While adapting to the changing needs of the business.

#### And the Future?



Practices...

Methods...

Communities...

Tools...

timeline.

suggested key events for the Agile

Many thanks to everyone on Twitter who