



Agility in Context

Rashina Hoda :: Philippe Kruchten :: James Noble :: Stuart Marshall

Agility in Principle

“Individuals and Interactions over Processes and Tools”
- Values, Agile Manifesto

“At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.”
- Principles, Agile Manifesto

“the ability of an organization to react to change in its environment faster than the rate of these changes”
- Steve Adolph, Agile 2006

“Embrace change”
- Beck, XP

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Agility in Practice?

“ScrumButt 74% of Scrum teams”
Jeff Sutherland, Money for Nothing, July 12, 2010

“I want [...] to be able to say, “That’s not XP; [...] the most demoralizing nickname we can come up with.” –
Alistair Cockburn, AlmostExtremeProgramming on c2.com

“In my opinion “Fake Agile” is the biggest threat to our industry”
- james-carr.org, June 2010

“Agile Architecture IS possible you first have to believe!”
- Mark Isham, Agile 2008

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Research Design

 **Grounded Theory Study**

- 58 Agile practitioners, 23 organizations
- 4 years, New Zealand and India
- Interviews and Observations
- Data Analysis

 **Corroborating Case Studies**

- 4 longitudinal case studies, 4 organizations
- 7 years, North America
- Interviews and Observations
- Data Analysis

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Grounded Theory

- Research focus emerges through iterative rounds of data collection and analysis
- Semi-structured, face-to-face interviews
- Observation of Agile practices
- Data analysis to find common patterns or **categories**
- Relationships between categories form the emergent **theory**

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Agility in Context

- Lack of Customer Involvement
- Fix-Bid Contracts
- Design / Architecture Intensive
- Documentation Intensive
- Slow Rate of Change
- Distributed Teams

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Lack of Customer Involvement

"Big, big issues are getting enough collaboration time with the [customers]..."
Agile Coach, NZ

"Agile [requires] fairly strong customer involvement"
Developer, India

"The most difficult part of Agile"
Business Analyst, NZ



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Lack of Customer Involvement

Agility in Principle
"Customer Collaboration over Contract Negotiation"
-Agile Manifesto

Agility in Practice

- Story Owners
- Customer Proxy
- Extreme Undercover




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Lack of Customer Involvement

*"every story had to have an owner... We didn't need that **story owner** for the duration of the project, we normally only need them for part of an iteration."*
Senior Agile Coach, NZ


*"we have someone called **proxy customer**... He may not be able to answer everything... but get the answers and get back."*
Agile Developer, India



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Lack of Customer Involvement

"In none of the [three] cases the customer was aware of Agile, they didn't really want to do Agile...but what we had done was...taken charge of the projects [and] we had made it Agile - internally following Agile."
Developer, India



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Fixed-Bid Contracts

"limitations are imposed by customers, like ... contracts ... they are looking for a fixed price contract..."
Senior Manager, India

"can't do fixed price projects with changes coming in"
Developer, India



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Fixed-Bid Contracts

Agility in Principle
"Customer Collaboration over Contract Negotiation"
-Agile Manifesto

Agility in Practice

- Providing Options
- Buffering
- Agile Undercover



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Fixed-Bid Contracts

*"Try for a month
then buy more sprints"*

Agile Coach, India

*"customer, after seeing demo after
fourth iteration, realizes... the
thirteenth feature is not required...
he needs something else...
he can swap the two"*

Developer, India

- 10% contingency in the contract
Consultant, NZ



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Slow Rate of Change

*"To be honest I was doubtful
that it was an appropriate
type of project to use Agile...
batch systems processing data"*

Senior Management, NZ

*"I'm not aware of a lot of
changes that have been
requested"*

Senior Developer, NZ



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Slow Rate of Change

Agility in Principle

*"Responding to Change
over following a plan"*
-Agile Manifesto

Agility in Practice

- Collect requirements
- Divide up into stories
(without the customer)
- Sort stories by priorities
- Iterative and incremental
- Demonstrate monthly



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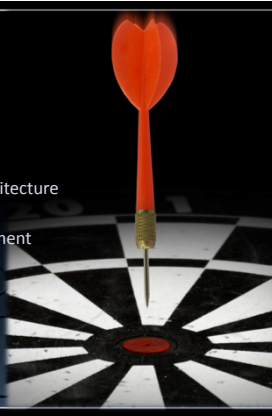
Results: Agility in Practice

Project Context	Adaptation Strategies
Lack of Customer Involvement	Story Owners Customer Proxy Simulation
Fixed-bid Contracts	Providing Options Buffering
Design/Architecture Intensive	Information Architecture Design Cycle Walking Skeleton
Documentation Intensive	Project Dictionary Comprehensive Documentation
Slow Rate of Change	Working from Requirements
Distributed Teams	e-Collaboration

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The 'Sweet Spot'

- 7-15 people
- Collocated
- Dedicated
- Socio-technical system
- Defined system / software architecture
- Low to medium safety
- Friendly management environment
- Dedicated "Customer"
- New development



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Context-Independent Practices

- Iterative development
- Iteration planning
- Testing
- Regular demonstration of working software
- Continuous improvement (via retrospectives/reviews)

Context-Dependent Practices

- Release Planning
- Customer Involvement
- Face-to-face Collaboration
- Architecture



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Agility in Context

- Agile methods are suited to projects in certain contexts
- Some projects fall outside the 'sweet spot'
- Agile teams can't always change their project contexts
- Agile teams adapt their practices to suit challenging project contexts

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Conclusion

"You don't say 'oh no, Agile says... No, there's no such thing as 'Agile says'. We need to find out together what works best, what gives us the best outcome in your context.'"

Agile Coach, NZ

How "Agile" are you if you don't adapt to changes in project context?

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Wish I was there!

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