About Rich Mironov

• Agile product management thought leader
  – Business models, pricing, roadmaps
  – Agile transformations
  – Interim product executive

• Agile strategy consultant

• Repeat offender at software start-ups

• Chair of agile PM/product owner stage at Agile 2009 and Agile 2010 conferences
Agenda

1. Quick review of Agile
2. Executive Viewpoint
3. Best Practices
What is Agile?

• Umbrella term for sets of software project management and engineering practices
  – Incremental, iterative and collaborative, rather than distinct stages
  – More frequent delivery of smaller, valuable increments
  – Building quality in, not adding it at the end
  – Goal of *potentially* shippable at every iteration
  – Active user involvement (or customer proxy)
  – Agile teams must be empowered and self-motivating
Why Not Waterfall?

Waterfall projects rarely deliver according to plan.
Discussions about Agile…

- Part philosophy and religion
- Part process, tools, techniques, methods
- Part organizational design
## Agile is an Umbrella

### agile methods

<table>
<thead>
<tr>
<th>Scrum</th>
<th>Extreme Programming (XP)</th>
<th>Agile Project Management Framework (APM)</th>
<th>Crystal Methods</th>
<th>Dynamic Systems Development Model (DSDM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational Unified Process (RUP)</td>
<td>Feature Driven Development (FDD)</td>
<td>Lean Development</td>
<td>Rapid Application Development (RAD)</td>
<td>…</td>
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Lean Roots

• Roots in Toyota Production System
  – “Create a continuous process flow to bring problems to the surface”
  – “Level out the workload”
  – “Build a culture of stopping to fix problems, to get quality right the first time”
  – “Become a learning organization through relentless reflection and continuous improvement”

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

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

www.agilemanifesto.org
12 Agile Principles

1. Our highest priority is to satisfy the **customer** through early and continuous delivery of **valuable** software.

2. Welcome **changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the **shorter time scale**.

4. Business people and developers must **work together** daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.

10. Simplicity - the art of maximizing the amount of work not done - is essential.

11. The best architectures, requirements and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.
Waterfall: Linear, Cascading

Waterfall projects rarely deliver according to plan.
Agile (Scrum) Model

- Plan out 1-4 weeks work
- Meet daily
- Review product
- Improve process
- Create product needs
- Strategic planning

After: Gabrielle Benefield
Fixed Vs. Variable

### Waterfall
- **Fixed**
  - Requirements
  - Resources
  - Time
  - Plan Driven

### Agile
- **Value Driven**

<table>
<thead>
<tr>
<th>Estimated</th>
<th>Resources</th>
<th>Time</th>
<th>Features</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>The Plan creates cost/schedule estimates</td>
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<td></td>
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<td>Release themes and feature intent drive estimates</td>
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*AccuRev* *RALLY* *anthillpro* *coverity*
1. Quick review of Agile
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Two Points of View

• What executives want from Agile
  – Get more done (expressed as “ROI”)
  – Faster, more predictable
  – More responsive to market (juggle roadmap more often)

• Why development organizations want Agile
  – Focus more on developing, not SDLC
  – Build what customers want
  – Move the bottleneck elsewhere
Planning Time Horizons

- **Strategic Planning**
  - Many years

- **Portfolio Planning**
  - Many mons

- **Product Planning**
  - 2-9 mons

- **Release Planning**
  - 2 wk

- **Sprint Planning**
  - Daily

- **Daily Activities**

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- **Executive**
- **PM**
- **Dev Team**
State of Agile Today

- Most companies early in agile adoption cycle
- Pockets of pioneers
- Often distributed teams
- Some examples of fully scaled-up divisions
- Highlights need for portfolio-level planning

Data from VersionOne
Business Benefits of Agile

- Shorter development cycles with higher quality
- Strategic flexibility
- Deeper connection and alignment with markets
- Improved team morale
- Greater profitability

But requires investment, leadership and patience
Often hard to measure, but…

- 2008 QSM Associates research found that development teams using agile practices were:
  - 37% faster delivering software to market
  - 16% more productive
  - With normal defect counts even with significant schedule compression

- BMC under Israel Gat: cut build cycle in half

- Biggest value comes from market, not savings
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Agile Transformation

• Agile is about changing *the way people work*
  – *Not* just the tools they use
  – *Not* just units of work or development sequence
  – But tooling and development processes are critical

• Organizational change takes time
  – One successful 300-person Eng team took 18+ months

• Executives must drive organizational expectations

• Plan for outside experts, coaches, instructors

• Some of your team won’t fit with Agile
3 Legs of the Agile Stool

Management
Product & Project

Engineering
Quantity & Quality

Corporate
Structure & Culture
Staffing & Resources Allocation

• Executive’s key tasks: build teams, set priorities

• Agile wants stable teams, fewer projects/person
  – 5-7 core technical members (Dev, QA, Ops)
  – Strong intra-team leadership (product, program, requirements) may be shared
  – Pool of technical experts (architect, UI)

• At your company, how many projects is each developer assigned to? Each architect?
Engineering Resource Pool

Resource allocation is strategic
Whole Product Team

Most Agilists focus here
The Broader Organization

- Agile reaches well beyond development teams
- Dramatic reshaping of product management
  - Product Owner is integral to team, but part of PM
  - Intensive real-time collaboration demands more PMs
- Strong impact on Marketing, Sales, Support, Training, Professional Services…
Business leaders must provide:

- Patience to champion change
- High-level priorities and roadmaps
- Broad market input versus “top-of-mind”
- Support for process/tools improvements
Take-Aways

- The best software organizations are using Agile to improve ROI and boost internal satisfaction
- Agile blends methodology, skills, tooling, coaching and company-wide collaborative attitude
- Transformation takes time, resources and patience
- Most impact on Engineering and Product Management
- Keep management attention on roadmap, strategic priorities and high-level goals
Agile Seminar Series

Q&A