Agile Transformation
Chart Your Path

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David Liebman
Brief Intro

David is an IT professional with over 25 years’ experience. His career has included roles as lead developer, systems architect, project manager and Agile Coach. This varied experience has provided him a unique and perceptive view of the software development lifecycle.

His work has taken him to many of New York’s major financial, insurance, media and health care institutions.

He is the Principal of Lean Agile Innovation LLC. specializing in Agile Transformations, providing guidance and training, at all levels, instilling the values and principles for an organization to “be agile”.

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OK ...Where to Start
Values and Principles

**XP Values**
- Courage
- Communication
- Simplicity
- Feedback
- Respect

**Lean Practice**
- Eliminate Waste
- Amplify Learning
- Decide as Late as Possible
- Deliver Fast
- Empower the team
- Build Quality In
- See the Whole

**Scrum Pillars**
- Visibility
- Inspection
- Adaptation
Lean Principles

Eliminate Waste
- Unfinished code
- Features not needed
- Broken processes
- Waiting queues

Build Quality In
- Test Driven Development
- Build to Acceptance

Deliver Fast
- Fail Fast. Find disconnects early.
- Deliver value.

Decide as Late as Possible
- Make decision with max info

Empower
- Environment to succeed
- Strong Communication

See the Whole
- Complete product vision
- Organization connections

Amplify Knowledge
- Tacit knowledge
- Get the message out
Lean Focus

Limit Waste
1. **Transport time of information between areas (offices, desks)**
2. **Inventory** (too much, too little, or erroneous information)
3. **Motion of workers**
4. **Wait time between process steps**
5. **Over-processing**, which places high attention on low-value activities
6. **Over-production**, which places the priorities on the wrong activities, drivers, or values
7. **Defects** or activities that are not directly related to needs
XP Practices

Whole Team

Collective Ownership

Test-Driven Development

Coding Standard

Customer Tests

Pair Programming

Refactoring

Planning Game

Continuous Integration

Simple Design

Sustainable Pace

Metaphor

Small Releases

www.XProgramming.com
Subway Map to Agile Practices

Lines represent practices from the various Agile “tribes” or areas of concern:
Agile Manifesto - 2001

We have come to value

<table>
<thead>
<tr>
<th>Individuals and Interactions</th>
<th>over</th>
<th>Processes and Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Software</td>
<td>over</td>
<td>Comprehensive Documentation</td>
</tr>
<tr>
<td>Customer Collaboration</td>
<td>over</td>
<td>Contract Negotiation</td>
</tr>
<tr>
<td>Responding to Change</td>
<td>over</td>
<td>Following a Plan</td>
</tr>
</tbody>
</table>

That is, while there is value in the items on the right, we value the items on the left more.
# Agile Principles

<table>
<thead>
<tr>
<th>Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.</th>
<th>Working software is the primary measure of progress.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome changing requirements, even late in development. Agile processes harness change for the customer’s competitive advantage.</td>
<td>Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.</td>
</tr>
<tr>
<td>Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.</td>
<td>Continuous attention to technical excellence and good design enhances agility.</td>
</tr>
<tr>
<td>Business people and developers must work together daily throughout the project.</td>
<td>Simplicity—the art of maximizing the amount of work not done—is essential.</td>
</tr>
<tr>
<td>Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.</td>
<td>The best architectures, requirements, and designs emerge from self-organizing teams.</td>
</tr>
<tr>
<td>The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.</td>
<td>At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.</td>
</tr>
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## Principles in 3 Words

<table>
<thead>
<tr>
<th>Satisfy the Customer</th>
<th>Working software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embrace Change</td>
<td>Sustainable Pace</td>
</tr>
<tr>
<td>Frequent Delivery</td>
<td>Technical Excellence</td>
</tr>
<tr>
<td>Cross-functional Collaboration</td>
<td>Keep it Simple</td>
</tr>
<tr>
<td>Support and Trust</td>
<td>Self-organization</td>
</tr>
<tr>
<td>Face-to-face Conversation</td>
<td>Inspect and Adapt</td>
</tr>
</tbody>
</table>

http://marcbless.blogspot.com/
Declaration of Interdependence

- We increase return on investment
  by making continuous flow of value our focus

- We deliver reliable results
  by engaging customers in frequent interactions
  and shared ownership

- We expect uncertainty and manage for it through
  iterations, anticipation and adaptation

- We unleash creativity and innovation
  by recognizing that individuals are the ultimate source of
  value, and creating an environment where they can make
  a difference

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So how do we control ourselves in an unpredictable world?

The most important, and still difficult part is to know accurately where we are.

We need an honest feedback mechanism which can accurately tell us what the situation is at frequent intervals.

Martin Fowler
http://www.martinfowler.com/articles/newMethodology.html
Agile Mindset

Effective management must be directed at what you want, not against what you don't want.

Russell Ackoff

When you want to understand Agile project management, ask “How might we perform project management in a way that allows us to create and respond to change and deal with uncertainty?”

Agile Alliance and Project Management Institute (PMI)
Agile Mindset

VALUES
PRINCIPLES
PRACTICES

PRACTICES
PRINCIPLES
VALUES

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An Agile Mind
Roadblocks

– Business
  • Lack of business involvement
  • No clear objectives
– Organizational
  • Funding
  • HR – Staffing / Evaluating
– Technical
  • Cross team dependencies
  • Release management
  • Infrastructure
Organization Culture

• Customer Focus
• Collaboration & Communication
• Cross Functional Teams
• Iterative / Incremental Development
• Empirical Process
• Continuous Improvement
• Systems Thinking
• Respect
Cultural Change

• John Seddon explains “culture follows structure” this way: Attempting to change an organization’s culture is a folly, it always fails. People’s behavior (the culture) is a product of the system; when you change the system peoples’ behavior changes.

Larman, Craig. Large-Scale Scrum (Addison-Wesley Signature Series (Cohn)) (pp. 65-66). Pearson Education.
Where Should We Focus?

- Individual
- Team
- Org / Org
- Org / Team

Mindset
Practices
Culture & Relationships
Environment
Agile Frameworks
Frameworks & Methodologies

- Alistair Cockburn suggested that a methodology is the set of conventions that a team agrees to .... that follows Agile values and principles.
- Scrum and XP - became frameworks when they were generalized to be used by other teams.
- Those frameworks help to inform where a team starts with their methodology, but they shouldn’t be the team’s methodology. The team will always need to adapt its use of a framework to fit properly in its context.

Agile Alliance
Frameworks

• Scrum
• eXtreme Programming (XP)
• Kanban
• Lean Software Development
• Feature Driven Development
• LeSS
• Scaled Agile Framework - SaFE
• Scrum@Scale
Team Focus

• Product Vision
• Product Backlog
• Cross Functional Team
• Working Agreements / DoD
• Delivery of High-Quality Product Increments
• Metrics / Continuous Improvement
Scrum Framework

Scrum’s Simple Rules
3 Roles • 5 Events • 3 Artifacts

Roles

- Product Owner
  - Voice of the Customer
  - Vision
  - Known Stable Interface
- Scrum Master
  - Stable Process
  - Continuous Improvement
- Team
  - Competency
  - Knowledge
  - Value

Artifacts

- Product Backlog
  - Vision
  - Priorities
- Sprint Backlog
  - Known Work
  - Capacity
- Product Increment
  - Sum of Completed Work
  - "Done"

Events

- Sprint
- Sprint Planning
- Daily Scrum
- Sprint Review
- Retrospective

Without the 3-5-3 you are not doing Scrum.

scruminc.

Scrum Patterns

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Kanban Method

Foundational Principles
• Start with what you do now
• Agree to pursue evolutionary change
• Initially, respect current roles, responsibilities & job titles
• Encourage acts of leadership at all levels

Core Practices
• Visualize
• Limit WIP
• Manage flow
• Make policies explicit
• Implement feedback loops
• Improve collaboratively, evolve experimentally (using models and the scientific method)
Kanban Board
When Scaling - Consider

- Company Size
- Structure
- Culture
- Engineering Practices
- Governance
- Geographic Distribution
- Resources
LeSS Framework
Scrum@Scale Framework
Scaling Example

5 SoS's with 2, 3, 4, & 2x5 Teams
SaFE Framework
SaFE Core Values
SaFE Principles

#1 Take an economic view
#2 Apply systems thinking
#3 Assume variability; preserve options
#4 Build incrementally with fast, integrated learning cycles
#5 Base milestones on objective evaluation of working systems
#6 Visualize and limit WIP, reduce batch sizes, and manage queue lengths
#7 Apply cadence, synchronize with cross-domain planning
#8 Unlock the intrinsic motivation of knowledge workers
#9 Decentralize decision-making
#10 Organize around value

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DAD Framework
DAD Life Cycles

The four life cycles of development in the Disciplined Agile Delivery Model.

• **Agile Delivery Lifecycle:**
  – Based on Scrum
  – There is no product backlog.
  – This cycle extends throughout the entire project.

• **Lean Lifecycle:**
  – A continuous stream of workflow
  – Lean Lifecycle suggests to meet only when necessary.
  – This cycle extends throughout the entire project.

• **Continuous Lean and Agile Delivery Lifecycles:**
  – Teams deliver frequently and quickly with timeboxed iterations
  – Continuous integration focused mainly during the construction transition stage

• **Exploratory (Lean Startup) Lifecycle:**
  – Brainstorming of new and testable solutions
  – This is done before the inception stage and the transition stage.
DAD Stages

There are 3 stages of Disciplined Agile Delivery:

• Inception
• Construction
• Transition
DAD Agile Life Cycle
DAD

Key elements as listed below support the project:

• Program Management
• Release Management
• DevOps
• Product Management
• Enterprise Architecture
• IT Governance
• Continuous Improvement
DAD Lean Life Cycle

- Inception
  - Stakeholder vision
  - Proven architecture

- Construction
  - Continuous stream of development
  - Continued viability (several)
  - Sufficient functionality

- Transition
  - Production ready
  - Delighted stakeholders
Goals in DAD
Questions