Creating a High-Performance Agile Team



Bob Galen Agile Coach, Vaco Mary Thorn

Vice President of IT Strategy and Transformation at S&P Global Market Intelligence

MARY THORN



Mary is Vice President of IT Strategy and Transformation at S&P Global Market Intelligence

During her more than 20 years of experience with financial, healthcare, and SaaS-based products, Mary has held VP, Director, and Manager level positions in various software development organizations.

A seasoned Leader and Coach in agile and testing methodologies, Mary has direct experience building and leading teams through large scale agile transformations. Mary's expertise is a combination of agile scaling, agile testing, and DevOps that her clients find incredibly valuable.

She is also Chief storyteller of the book **The Three Pillars of Agile Testing and Quality**, and avid keynote and conference speaker on all things agile and agile testing.



BOB GALEN







BOB GALEN BOB@RGALEN.COM

Principle Agile Coach at Vaco Agile in Raleigh, NC

Agile Trainer & Coach at RGalen CG

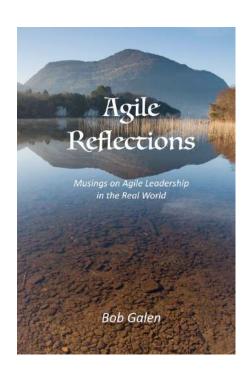
- Somewhere "north" of 30 years experience
- Wide variety of technical stacks and business domains
- Roots of a software developer
- Senior/Executive software development leadership for 20+ years
 Agile "Coach of Coaches" and Leaders
- Deep XP, Lean, Scrum, and Kanban experience since late 1990's
- From Cary, North Carolina; husband, father, grandfather, and dog lover

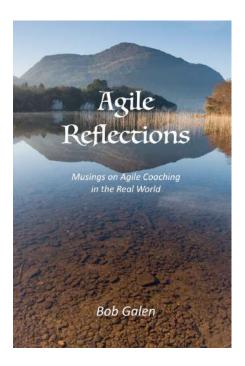




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First, let's explore...

- What are the basics of "Agility"
- What would be indicators (patterns) of Agile maturity?
- What about Agile immaturity?
- Let's rank order some of them; I.e. what do you think are the more impactful patterns in either direction?

"Doing" Agile vs. "Being" Agile?

- One debate in the agile community surrounds agile maturity. A way
 of characterizing it surrounds
 - Doing Agile focusing towards is tactics, ceremonies, and techniques vs.
 - Being Agile focusing towards team mindset, leadership mindset, behaviors, organizational adoption, etc.
- As an entry exercise, can we brainstorm aspects of Doing vs. Being to capture how you view the differences?
- The Mature Patterns workshops sort of crosses both, with an emphasis towards the Being-side of the equation.



Outline Maturity Patterns

- 1. Truly Emergent Architecture
- 2. Aggressive Refactoring
- 3. Pursue Ruthless KISS
- 4. Behaving Like a Team
- 5. Naturally Becoming: T-Shaped
- 6. Truly Collaborative Work
- 7. Lean Work Queues
- 8. Opportunistic Pairing & Swarming
- 9. Healthy Distributed Teams
- 10. Quality on ALL Fronts
- 11. Testing is Everyone's Job
- 12. Active Done-Ness
- 13. Stopping the Line

- 14. Product Ownership takes a Village
- 15. Pervasive Product Owners
- 16. The Nuance of a Healthy Backlog
- 17. Righteous Retrospectives
- 18. Experimentation
- 19. The Power of Complete Transparency
- 20. Doing More than Thought Possible
- 21. Emphasize Strength-Based Teams
- 22. Show a Healthy Respect for Management



For each pattern... workshop discussions

- For sets or groups of patterns, we'll pause and discuss the patterns in small groups
- Looking for examples where you've seen the pattern in operation and have a story to tell

OR

- Examples where you've seen related anti-patterns in operation and have a counter-story to tell
- Either way, we'll be looking for group-based discussion around the ways and means of achieving agile maturity



Technical Patterns



#1) Truly Emergent Architecture

- Comfortable with on-the-fly de-composition;
 - no BDUF!
- Sprint #0's as appropriate
- Backlogs contain learning activity – Research Spike stories
- Should demonstrate architectural evolution in Sprint Reviews



- Architects work in "slices"
 - Perhaps 'skewed' a bit forward from other teams
 - Deliver architecture from within the Scrum teams
 - Publish system metaphors, guidelines, big picture views – to keep everyone focused on goals



#2) Aggressive Refactoring

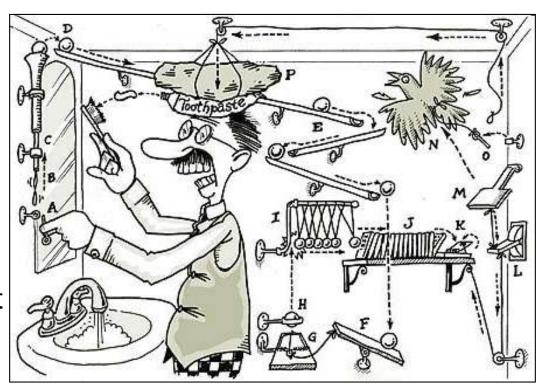
- It's easy to refactor on new work or greenfield project...so clearly do that.
 - But what about hairy, old, fragile code?
- Aggressive refactoring
- Put it on your Backlogs
 - Justify / explain it in business terms
- Remember the relationship to automation – making refactoring effective & <u>Fear-</u> <u>Less</u>





#3) Ruthless KISS

- Getting LEAN deep into your cultural DNA
 - Fight complexity
 - People & Collaboration over Process & Tools
 - Fight Gold-plating developing (Just Enough) of EVERYTHING!
- Deliver small increments (Just in Time) and pay attention to feedback



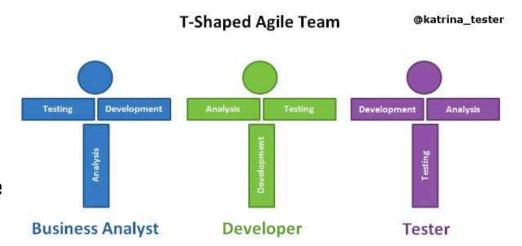
Continuously engage your Product Owner



#4) Naturally Becoming: T-Shaped

- Core skills and shared skills
 - Inquisitive breadth
 - X-Training
- All skills are fair game:
 - Development
 - Testing
 - Design & Architecture
 - Non-functional (performance security)
- Breadth and depth; no trivialization of any skill (ex: testing)

T-shaped Agile Team?





Breakout – Technical Patterns

- Individually, in small groups, or at your table
- Pull together a 3-5 item short list of what YOU believe the KEY maturity patterns are in this area.
- Perhaps identify things I missed?
- Discuss the WHY behind your decisions. Be ready to explain or defend your thinking
- Privately, do a "gap analysis" for your teams back home. What would be 1-2 actions you could suggest/influence to increase team level maturity?



Teaming



#5) Behaving Like a Team

- Includes the Scrum Master and Product Owner
- Developing trust
 - Congruent feedback
 - Getting the "Elephants" on the table
 - Asking for help; helping each other
- Spending personal time together
- Passionate debate; Healthy conflict



- Strengths & weaknesses;
 adjust to each; maximizing & minimizing
- Succeeding or failing as a team



#6) Truly Collaborative Work

- Co-located teams
- Avoiding Scrummerfall-like dynamics
 - Stages and gates within the team
 - Long queues with hand-offs
- Listening to each other; mutual respect, honor experience







#7) Lean Work Queues

Limiting WIP

- Fewer things "in process" and small tasks
- Visible workflow
- Kanban is interesting variant of the 'correct' team behavior
- Blending roles individuals doing more themselves and handing off less
 - Focusing on delivering value



Think in terms of reducing & eliminating WASTE



#8) Opportunistic Pairing & Swarming

- Mob programming
 - Minimally trying it as an experiment
- Opportunistic Pairing
 - Dev-to-Dev, Test-to-Test, Everyone



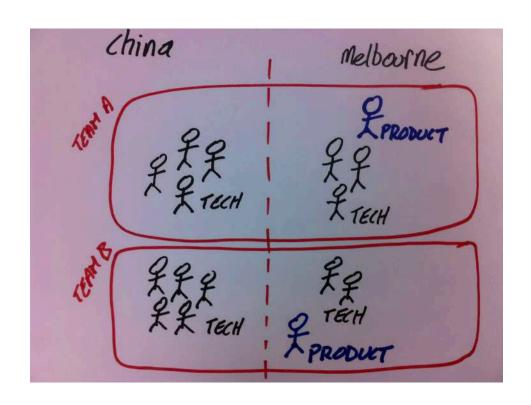
- 3-Amigo behavior surrounding the work (stories)
 - Story lead
 - Shepherding a story to "Done"
- <u>Everyone participates in the</u>
 <u>Sprint Review/Demo</u>





#9) Healthy Distributed Teams

- It's not an excuse for bad behavior
 - Overcome the challenges
- Keep the ceremonies active and engaged
- Whole team engagement
- Product Owner is wellconnected to the team; active refinement
- Same "rules"
- If you video recorded any "activity", it would look the same as a co-located team





Breakout – Teaming Patterns

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Quality & Testing



#10) Quality on ALL Fronts

- Leaving behind the notion of "Testing in quality..."
- Professionalism within the team
 - Doing the right things...doing things right
- Self-inspecting; self-policing
- Just enough quality
 - Quality has a cost and should be variable based on your context
- Focus on <u>Craftsmanship and</u> Professionalism





#11) Testing is Everyone's Job

- Willingness on the part of the whole-team to pitch in for *testing*
 - All types, even manual
 - Extending it to test automation
 - Never letting tests break
 - Building in testability
- Listening to test estimates as part of work estimation
- non-functional testing
- Understanding functional and
- Root Cause Analysis as a team



#12) Active Done-Ness; Readiness

- Actively create and automate Acceptance Tests on a Story or a Feature basis
 - Customer heavily involved with definition
 - Not functional tests
- Have established a view to multiple levels of <u>Done-Ness</u>
 - Work Done
 - Story Acceptance
 - Sprint Goals
 - Release Criteria & Goals
- Think in terms of traditional Entry, Exit, and Release criteria





DoD – another view

Sprint:

End date met

Stories demo'd

UAT complete

Retro held and

documented

updated

Exploratory

testing done

Performance

(etc.) tested

updated and

postponed

tech. view

verified

Regression suite

· All bugs closed or

Installation works

Documented for

Product backlog

Release:

- All agreed sprints done
- Integration tested / hardened
- Documentation "tested"
- Install packages complete
- Release notes
- Marketing collateral
- Regression test suite complete
- Security testing
- PO sign-off

Story:

- AC met
- All agreed tasks done
- Functionally tested / auto test built
- All known bugs fixed
- · CI success. including DB / config updates
- Integration tested
- Tracked
- Documented for user view

Task:

- Implemented
- Unit Tested
- Code commented
- Code peer reviewed Smoke-tested
- In source trunk
- In CI build
- Coverage met
- Standards met
- Tracked
- Other metrics?



#13) Stopping the Line!

- Fix your bugs
 - Ruthless testing; immediate testing; immediate feedback
 - Less logging more fixing
- Build is broken?
 - □ Fix it!
- Need automation for a key area?
 - Build it!
- Need to refactor ugly legacy code that is bug infested?
 - Refactor it!
- Key impediments to your team?
 - Resolve them!





Breakout – Quality & Testing Patterns

- Individually, in small groups, or at your table
- Pull together a 3-5 item short list of what YOU believe the KEY maturity patterns are in this area.
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Product



#14) Product Ownership takes a Village

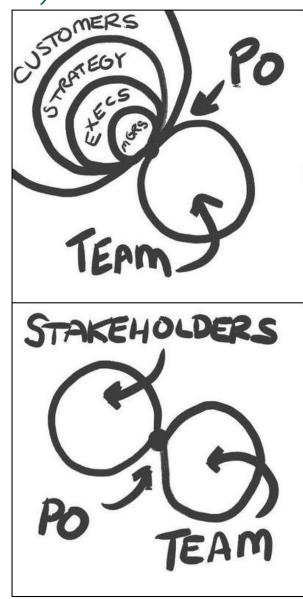
- Fostering an environment where the entire team 'owns' the Product Backlog
 - Freely contributes User Stories
 - Passionate debate on priority, themes, and release goals
- Shared—
 - Vision & Goals
 - Business Values
 - Technical direction
- Functional, Technical, and Product 'voices'





#15) Pervasive Product (Customer) Owners

- Can be a 'team', but needs <u>a</u> <u>unified decision-maker</u>
 - Organizationally 'sticky' decisions
- Engaged as a team member
- Outwardly focused toward the market & stakeholder demands
 - Advocate for the team
- Engage the customer and stakeholders







#16) The Nuance of a Healthy Backlog

- Considering it a tapestry of work that is considered in turn:
 - Architecture & design
 - Quality & Test Automation
 - Technical debt, Infrastructure
 - Bugs
 - Innovation & creativity
- As well, planning
 - Feature workflow & value
 - Dependencies & risk
 - Ultimately deployment
- You're never "done" refinement





#17) Experimentation

- Open minded to trying out new ideas
 - In design, in code, in testing
 - In process & teamwork
 - In the product, with the customer
- ALL ideas get heard
- Willing to:
 - Take risks, fail, make mistakes
- Hypothesis
- All the while...Learning! Pivoting!



T-Shaped Curiosity
Continuous Learning
Community of Practice - Sharing



Breakout – Product Patterns

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Organizational



#18) Righteous Retrospectives

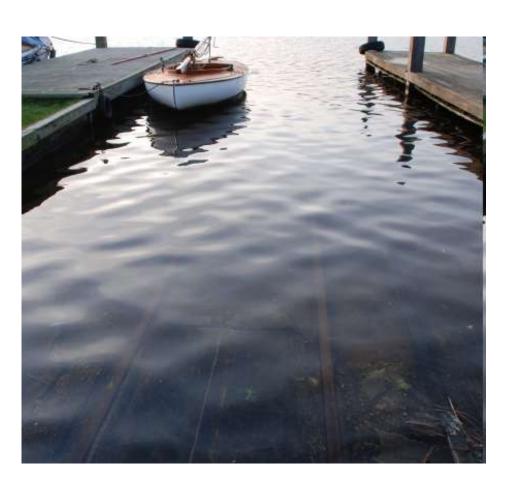
- For the team!
- Remember Norm Kerth's "Prime Directive":
 - Everyone tried their best
 - Safe environment
- Drives "Continuous Improvement"
 - Challenge one other!
- Get the "Elephants" out in the open
- Be creative try new things; take some risks





#19) The Power of Complete Transparency

- Opening up your stand-ups & Sprint Planning to everyone
 - Even sales folks and customers
- Rampant Information Radiators
- Tell it like it is
 - Congruent truth-telling
 - Courage
 - Success or Failure
- <u>Expect organizational</u>
 <u>engagement</u> questions,
 suggestions, trade-offs towards
 core goals



It is what it is...now how do we ADJUST towards our GOALS



#20) Doing More than Thought Possible

- Stretch goals within Sprints
- Creative
 - solutions not simply following the Story or Task lists
 - exploring alternatives with Product Owner
 - The Wisdom of Crowds
- Iterations that lead towards... "Good Enough"
- Fighting <u>Parkinson's Law</u> and <u>Student Syndrome</u>

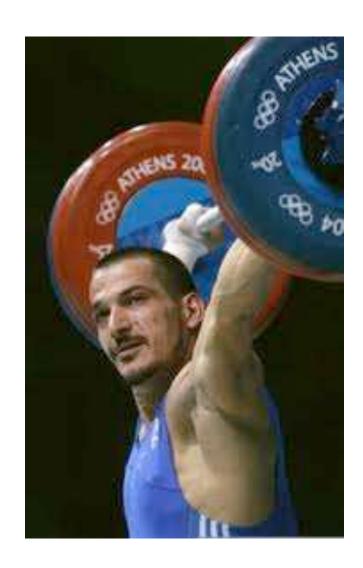


- Supporting Slack Time
 - Innovation Time
 - Creativity thinking
 - Experimentation



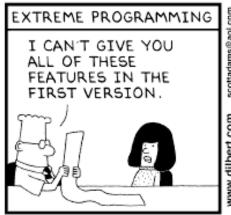
#21) Strength-Based Teams

- Individuals focus on what they're good at; inspires joy
 - While still 'stretching' themselves
- Notion of <u>Appreciative Inquiry</u> leveraged in retrospectives
 - And continuous improvement
- Team-building interview for <u>complimentary strengths</u>
- At scale, consider strengths
 - When Release Planning loading work
 - Load-balancing teams by skill-set





#22) Healthy Respect for Management







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- Avoid blaming everything on leadership or management
 - Stop expecting management to solve all of your challenges
 - Stop "looking upward" or "asking for permission"
- No marginalization! It's a partnership between
 - Servant Leadership and
 - Self-directed teams

- Leaders are allowed to:
 - Establish Mission & Vision
 - Establish and hold teams to their Goals
 - Ask questions, be inquisitive
 - Hold teams accountable to their commitments
 - Seek continuous improvement
 - Expect and receive results



Breakout – Organizational Patterns

- Individually, in small groups, or at your table
- Pull together a 3-5 item short list of what YOU believe the KEY maturity patterns are in this area.
- Perhaps identify things I missed?
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Workshop Wrap-up

- Overall, what were the MOST compelling patterns?
- What KEY patterns did I miss?
- Final questions or discussion?

Thank you!







Contact Info

Bob GalenPresident,
RGCG

Experience-driven agile focused training, coaching & consulting

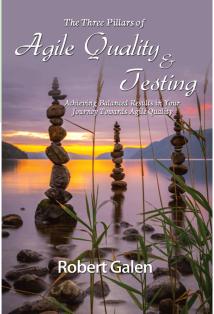
Cell: (919) 272-0719

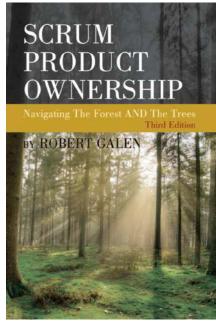
bob@rgalen.com www.rgalen.com

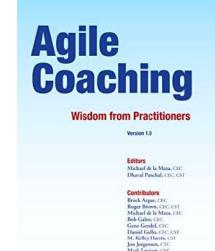
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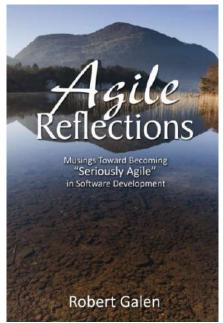
https://www.linkedin.com/in/bobgalen

Podcast on all things 'agile' - http://www.meta-cast.com/











Kanban Pizza Game Part-1



Kanban Pizza Game Materials

- Break up into teams of from 4-6 individuals
- Get your materials:
- Post-Its in three colors: yellow (pineapple), pink (ham*) and green (rucola i.e. rocket salad)
- Index cards (white or yellow or some other light color so that you can draw tomato sauce on them)
- Red markers
- Glue or transparent tape (to make the Post-Its stice)
- Masking tape (aka. painter's tape)
- Scissors (one small + one large per team)
- Stopwatch
- Order cards one set per team
- Oven plate one per team
- The Kanban Pizza Game slides





Kanban Pizza Game

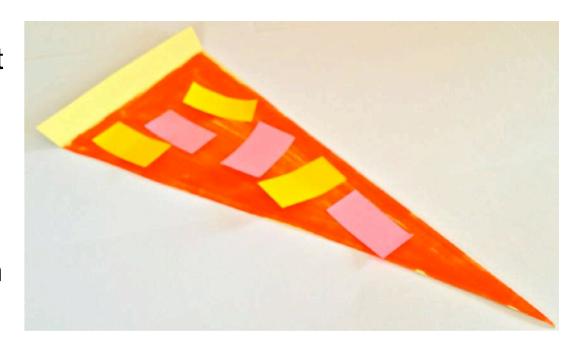
Objective

- Make as many pizza's as you can in the allotted time
 - I will keep time and stop you at some point; I will also keep counts for each team/round
 - Round one make Pizza (1 kind Hawaiian)
 - Kanban
 - Round two develop Kanban board, make Pizza (1 kind)
 - Improve & modify system
 - Round three customer orders, 2 styles of Pizza Hawaiian and Rocket Salad)
 - Improve system
 - Round four final round, fine-tune the system
 - Visualize the process on the tables; then debrief as a group

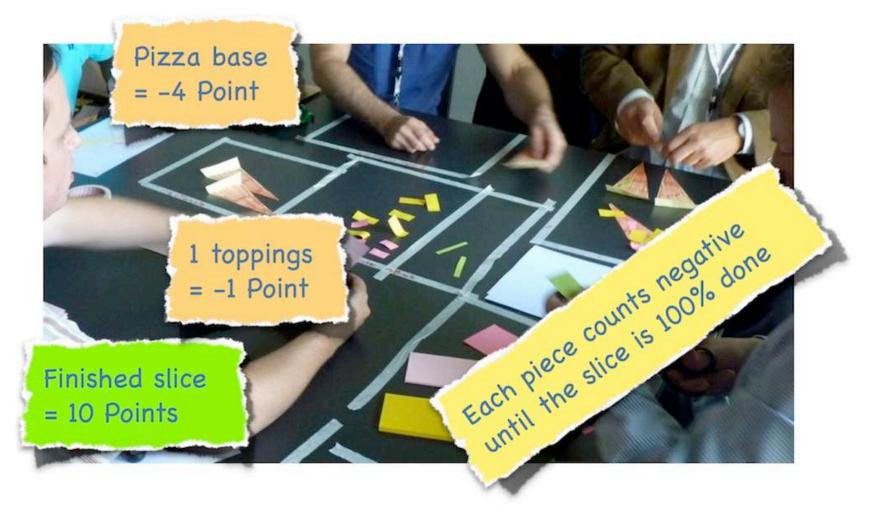


Kanban Pizza Game Rules

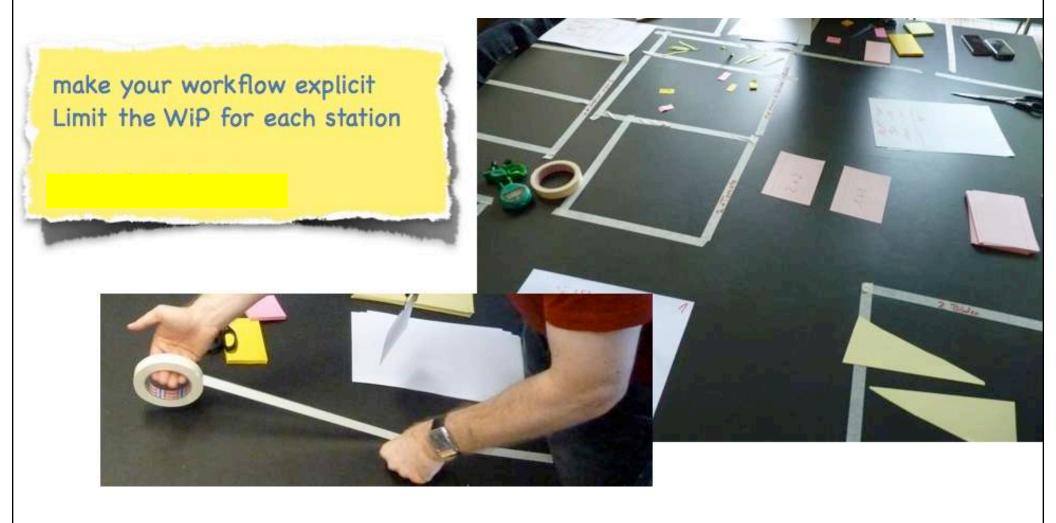
- Pizza composed of crust, sauce, toppings,
- Up to 3 slices in the oven at once, 30 seconds minimal cook time
 - No adding / removing slice while cooking
- Hawaiian style: 3 pieces of Pineapple, 3 pieces of Ham



Kanban Pizza Game Scoring



Kanban Pizza Game Table Setup, Round 2-4



Kanban Pizza Game Table Setup





Kanban Pizza Game

New! New!! New!!! "Pizza Speciale"

Slim green post-its as rucola (rocket salad)

Each piece has 7 of them

Rucola burns in the oven (Pieces have to be put on a baked pizza)



