



Where Scrum won't fit: Getting Agile with Kanban in IT Ops and Support

Colm O'hEocha – AgileInnovation

Slow Down to Speed Up

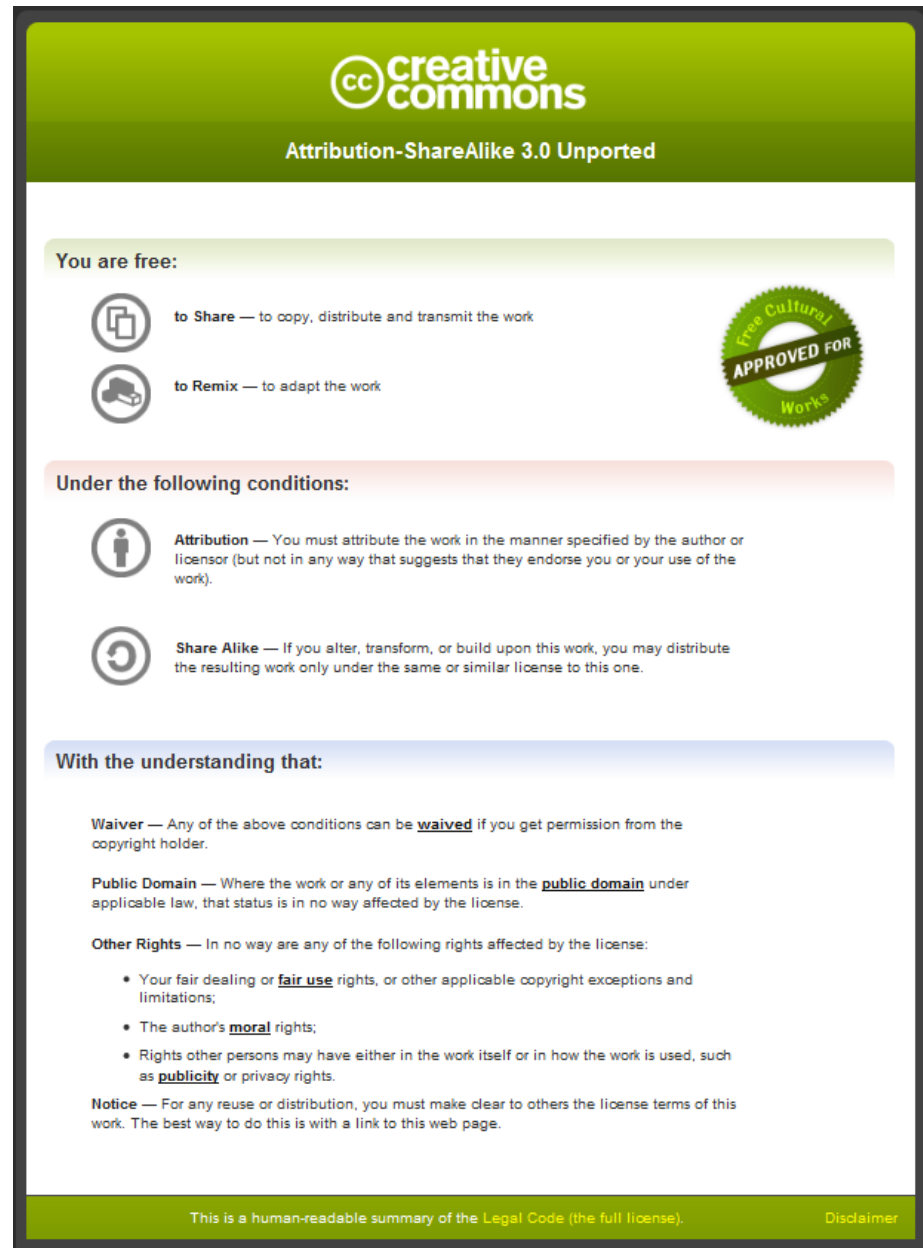
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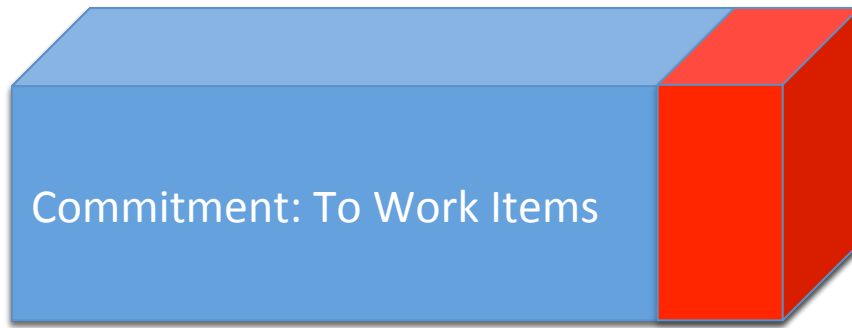
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Scrum – Committed Sprint Work Items

How we Build Predictability (and commit):

- Well Groomed/Understood Items
- Acceptance Criteria/Tests Predefined
- Short Planning Horizon
- Evidence Based Planning
- Explicit Policies (e.g. DoD)
- Stable, Cross-Functional Team
- Fast Feedback (Inspect & Adapt)



Commitment to Sprint Plan: 100% Velocity means we'll 'fail' half the time



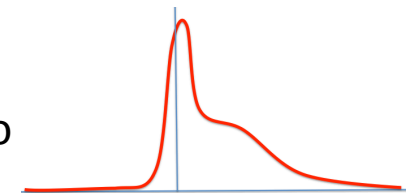
Lets Protect Ourselves: Build in a 'Contingency' (or two)



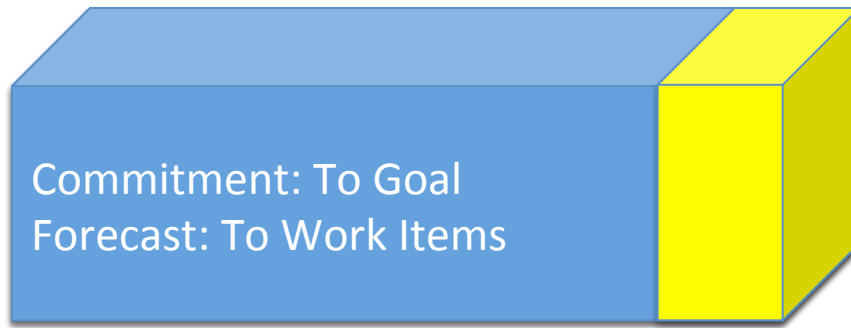
Parkinson's Law: Work expands to fill time allocated to



Work Takes Longer



Scrum – Forecast Sprint Work Items



How we Build Predictability (and commit):

- Well Groomed/Understood Items
- Acceptance Criteria/Tests Predefined
- Short Planning Horizon
- Evidence Based Planning
- Explicit Policies (e.g. DoD)
- Stable, Cross-Functional Team
- Fast Feedback (Inspect & Adapt)

ACCEPT SOME UNCERTAINTY REMAINS

Commitment to Sprint Goal: 100% Velocity means we'll never 'fail'



No need to build in a Contingency. Precise Estimation not so important



Predictable delivery of Sprint Goal, not individual work items



Team Output Improves

Scrum –Some Un-Planned Demand



How we Build Predictability (and commit):

- Well Groomed/Understood Items
- Acceptance Criteria/Tests Predefined
- Short Planning Horizon
- Evidence Based Planning
- Explicit Policies (e.g. DoD)
- Stable, Cross-Functional Team
- Fast Feedback (Inspect & Adapt)

LEAVE BUFFER FOR UN-PLANNED WORK

Commitment to Sprint Goal: 70-80% Velocity means we'll (probably) never 'fail'



Contingency already built in (for un-planned work). Precise Estimation not so important



Predictable delivery of Sprint Goal may be undermined (un-planned work)



Weakens Planning, dilutes Visibility & Predictability from the Team

Some Scrum Assumptions

(that we may not be able to satisfy)

- All work items are known, understood and estimable (for the next sprint)
 - Bugs (software, hardware, infrastructure,...)
 - Deploying to Customer Equipment
 - Integrating Hardware from New Suppliers,...
- All work items can be right-sized to a sprint
- All work Items can be delivered at Sprint End
- We work in cross-functional teams 7 ± 2

Agile/Lean Delivery Models

Timeboxed

Scrum, XP, FDD,...



- Work Planned to fit the Timebox
- Duration Fixed, Scope Variable
- Commitment -> Estimation & Planning
- Macro Level – Pull; Micro Level - Push



















Flow Based




Kanban, ...?



- Work Planned based on Available Capacity
- Scope Fixed, Duration Variable
- Commitment -> Waste Elimination
- Macro & Micro Level Pull

Scrum Board

Sprint Backlog	To Do	In Progress	Done
			   
	 	 	
	 		
	  		

Input Q (4)	Find It (2)		Fix It (4)		Test (3)	Ready to Deploy	Deployed
	In Progress	Done	In Progress	Done			
10	9	8	5	4	1		
11			6		2		
12			7		3		
14							

Scrum & Kanban Summary - Differences



Iteration Based (Scrum)	Flow Based (Kanban)
Focus on maximising work done in an sprint (max Velocity)	Focus on minimising the time to get a piece of work from start to finish (min Cycle Time)
WIP limited indirectly (per sprint)	WIP limited directly (per workflow state)
Somewhat Predictable, Estimable Work	Interrupt Driven, Highly Variable Demand
Sprints Immutable (by Work Items or Goal)	Finish something before you start something else (expediting exceptional)
Scope extends to work of the Team	Scope extends across a Value Stream
Scope Can Vary	Scope Often Fixed
Predictability Paramount	Responsiveness Paramount
Any type of (Plannable) Work	Design for the Work Expected: WIT, CoS, SLA
Coupled I/O cadence	Decoupled I/O Cadences
Periodic Retrospectives	Stop the Line – Fix as it Happens
X-Functional, Generalizing Teams (7±2)	High Specialization with Hand-Offs Possible

Both are Simple, Neither are Easy

- *Scrum*
 - *Teams may struggle to break up work, deliver potentially releasable product, achieve transparency & joint responsibility*
 - *Management may struggle to allow self-organisation, variable scope and to maintain sprint discipline*
- *Kanban*
 - *Teams may struggle with a lack of prescribed structure (e.g. cadence of events, Scrum roles)*
 - *Management may struggle with a lack of commitment, milestones and ‘big-bang’ change*

Kanban for Complex Domains:

- Visualising your value stream
- Defining WITs, CoS, Policies
- Managing Flow – Balancing Demand to Capacity, Handling Bottlenecks
- Stakeholder Engagement Models
- Input & Output Cadences
- Metrics & Reporting
- Scaling Kanban
- Managing Variability

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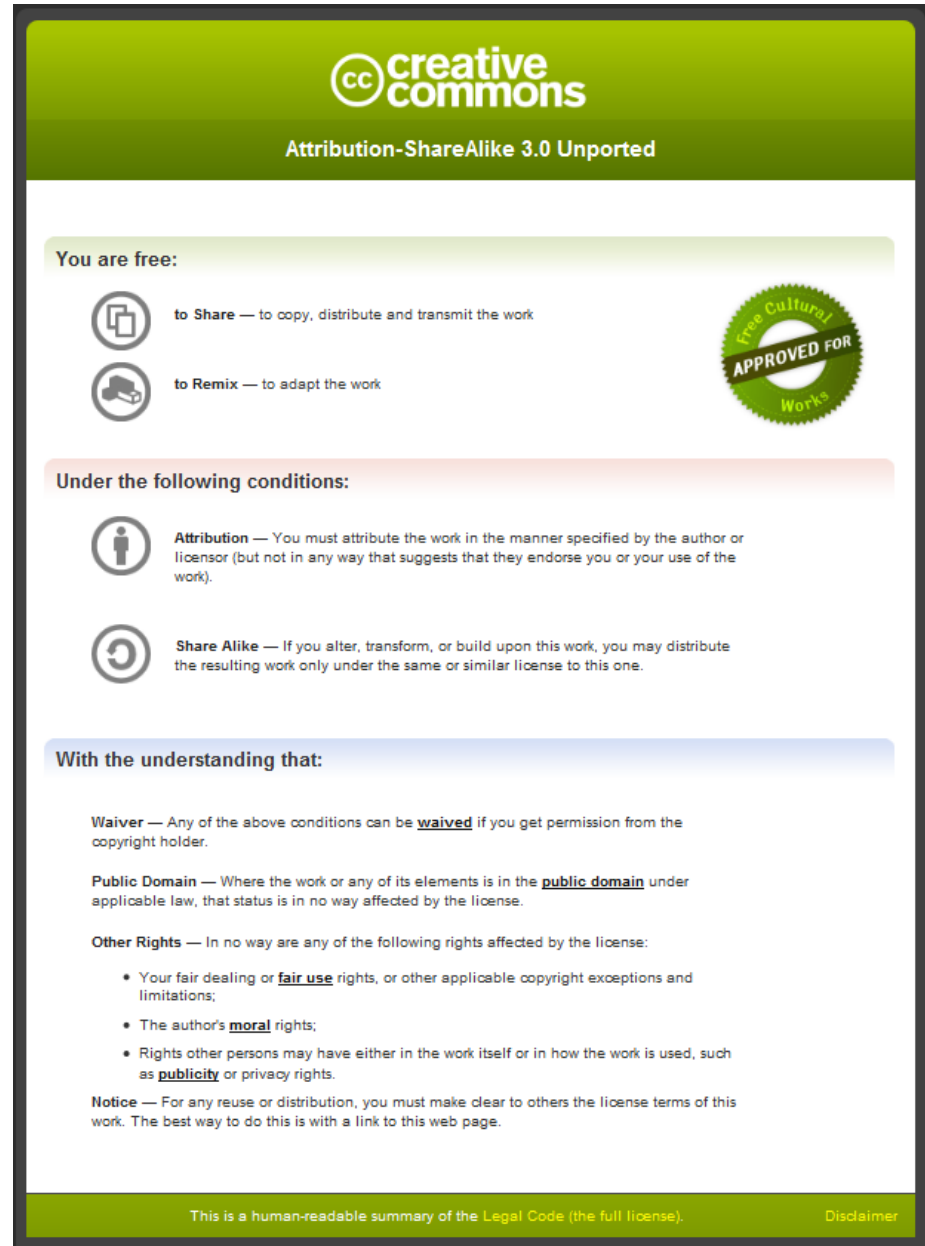
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