Sun Tzu and the Art Of War

Applied and Scalable Simplicity for Medium Sized Scrum

Shanghai Scrum Gathering

Daniel Doiron – the agile agonist™

email : Daniel@agileagonist.com

Twitter: @agileagonist

Introduction – Sun Tzu and the Art Of War

- Sun Tzu was both a general and a philosopher in the Warring States period of Chinese history around 400 B.C.
- Sun Tzu knew all battles were fought in the mind of the opponent before being taken to the field.
- He inspired Mr Hawkins and Rajagopal to write a book on traditional project management strategies which became the genesis of this presentation.

Introduction - Why Are You Here?

« The Art of War has been applied to traditional project management practices.

Today, I spread Sun Tzu's words, as long as they fit on a medium T Shirt.

Don't be fooled by the brevity of the messages.

Statements can have small, medium, or large meanings. Let your team decide! »

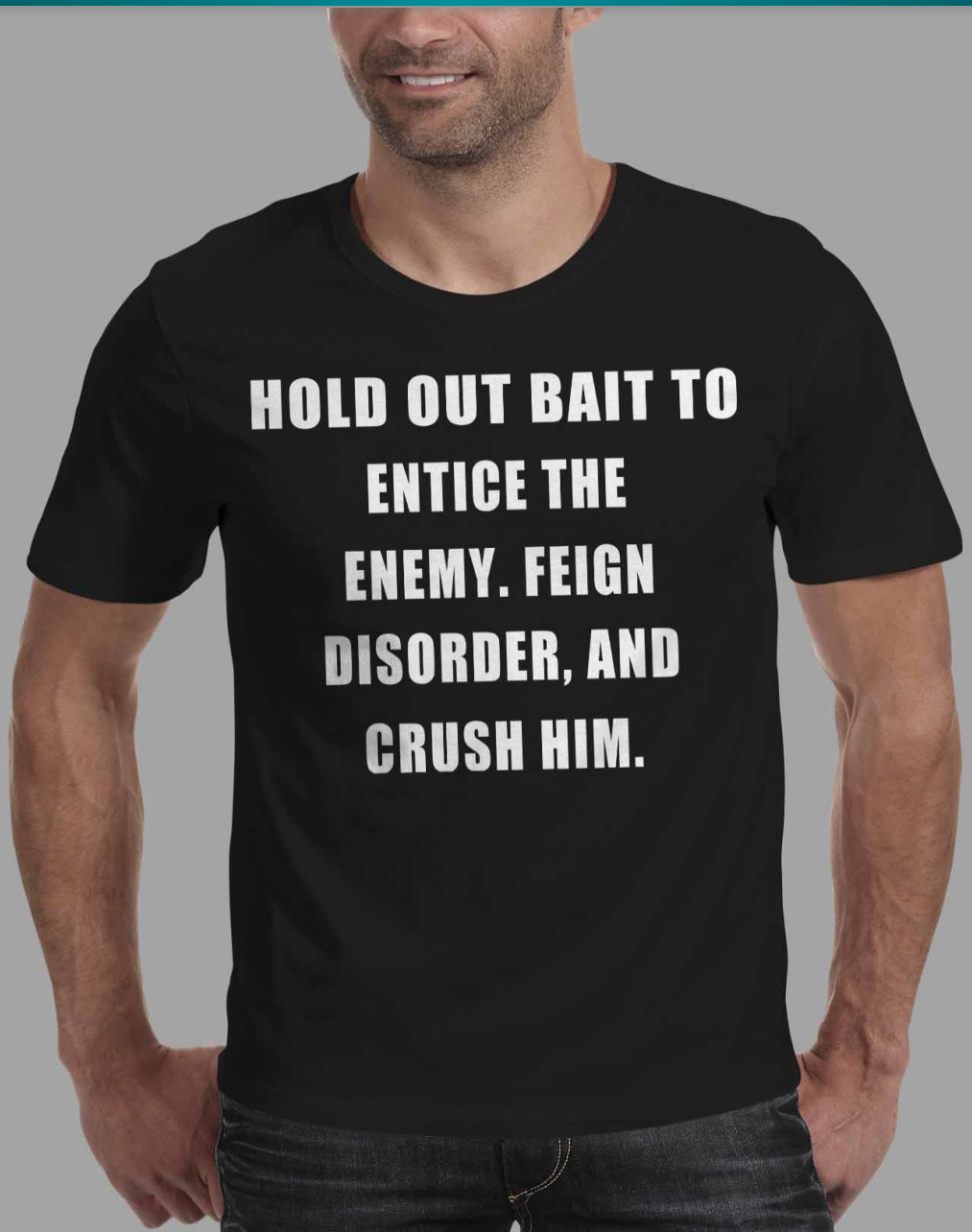
Daniel Doiron – the agile agonist™

Inspiration for T Shirt quotes from the Art Of War

THE BATTLEGROUND

1. Laying Plans
2. Waging War
3. Attack by Stratagem
4. Tactical Disposition
5. Energy
6. Weak Points and Strong
7. Manoeuvering
8. Variation in Tactics
9. The Army on the March
10. Terrain
11. The Nine Situations
12. The Attack by Fire
13. The Use of Spies

1) Laying Plans or Early Scrum Starts ?



Laying plans or fast start ?

In an agile context, we need to fight inertia to get to a productive state as fast as possible.

There are 3 ways agile thinking can help get a team or an organisation to hit the ground running more efficiently.

1. Scrum 0 or Liftoff
2. The first one on the bus pays for the bus
3. The burn rate trap versus cheap cycle time

Sprint Zero or Liftoff ?

- Some in the field prefer the term **Liftoff** to **Sprint Zero.**
- Let’s take a vote and settle the matter once and for all!!

Sprint Zero - Liftoff ?

Here is a typical meeting agenda:

- Select Product Owner
- Create Vision with Stakeholders
- Select Scrum Master and Key Team Members
- Write Product Backlog and Identify Infrastructure Needs
- Finish selecting Team Members
- Create the Roadmap

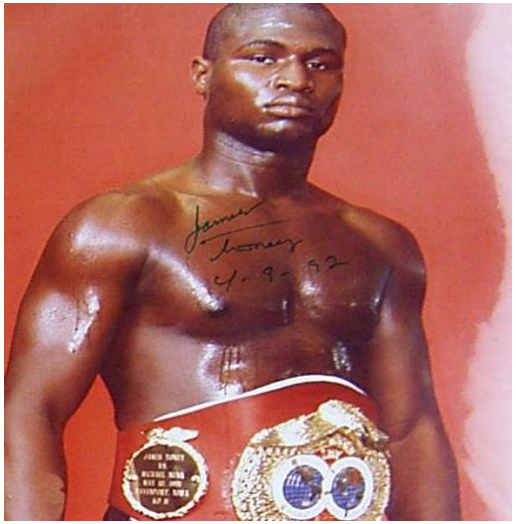
Is it me or is there a lot of focus on selecting team members?

Style matters!

Pernell Whitaker

!

Floyd Maywheather



James Toney

Put any 2 of these 3 fighters in the same ring, and very few punches will be thrown…

…They are all defensive, counter-punchers!

Personality profiles matter

It’s important when selecting team members to know their Insight Profiles to balance the team!

Analytical – Logic centered (Precise & Serious)
COOL BLUE

Friendly (Supportive) – Focussed on well-being of others (Loyalty & Diplomacy)
EARTH GREEN

Competitive (Vigorous) – Result oriented (Independent & Pragmatic)
FIERY RED

Expressive – People oriented (Open & Persuasive)
SUNSHINE YELLOW

Personality profile – Cool Blue

Analytical – Logic centered (Precise & Serious)
COOL BLUE

Challenge: Be aware that others do not need to understand everything or require all the information to be satisfied or forge ahead.

Personality profile – Earth Green

Friendly (Supportive) – Focussed on well-being of others (Loyalty & Diplomacy)
EARTH GREEN

Challenge: Try not to get overwhelmed with other people's emotions to meet objectives. Sometimes people must be brought back to the context to ease their understanding.

Personality profile – Fiery Red

Competitive (Vigorous) – Result oriented (Independent & Pragmatic)
FIERY RED

Challenge: Be conscious that co-workers need to feel confident and that hard targets are not always the only dimension in a project. Competitive people must learn to listen and take pleasure in participating in discussions.

Personality profile – Sunshine Yellow

Expressive – People oriented (Open & Persuasive)
SUNSHINE YELLOW

Challenge: Take into account the objectives as they are laid out and develop an attitude and proper focus to your perspectives while maintaining the human dimension.

Personality profiles – Small cost, big payoff!

- It only takes 15 minutes to assess a team of 8 during LIFTOFF - SPRINT ZERO! Look at Appendix B for my score!
- Imagine the benefits for a team of 32 where n(n-1)/2=496 communication channels exist!

Analytical – Logic centered (Precise & Serious)
COOL BLUE

Friendly (Supportive) – Focussed on well-being of others (Loyalty & Diplomacy)
EARTH GREEN

Competitive (Vigorous) – Result oriented (Independent & Pragmatic)
FIERY RED

Expressive – People oriented (Open & Persuasive)
SUNSHINE YELLOW

SHOW YOUR TRUE COLOR

Personality profiles matter

- This simple and quick assessment can help teams, big or small, get to know some interesting traits about each other very quickly to avoid conflicts.

- Why wait for 6 months before figuring out that Tom (Competitive) is always struggling with Dave (Analytical)… This is a no brainer!

- So everybody on a team could take the test and the put the result on its email signature!

  ▲

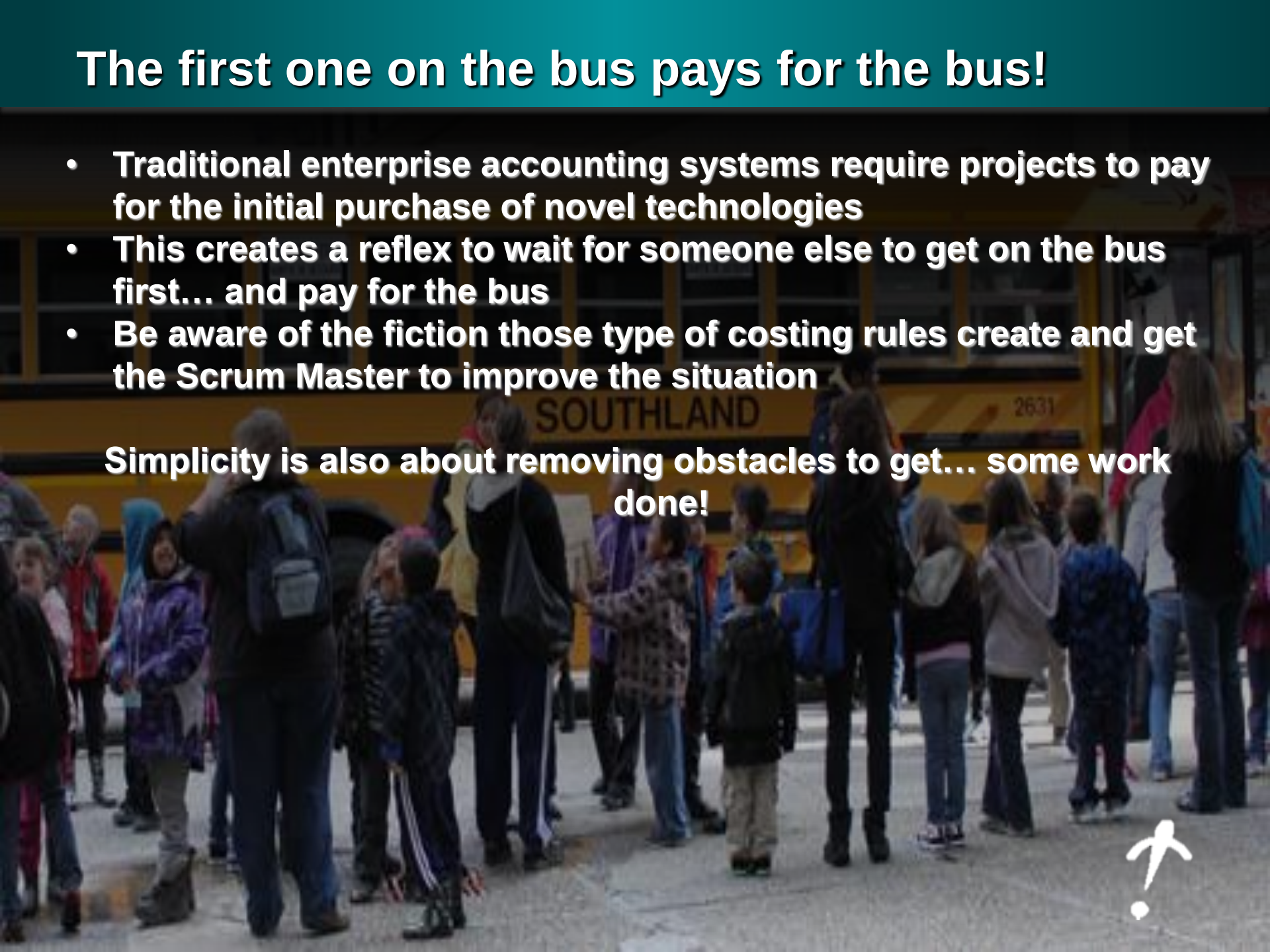
  Daniel Choi – Analytical Developer

A simple, effective and efficient tool to manage (or hopefully prevent) interpersonal conflicts *before* they happen!

The first one on the bus pays for the bus!

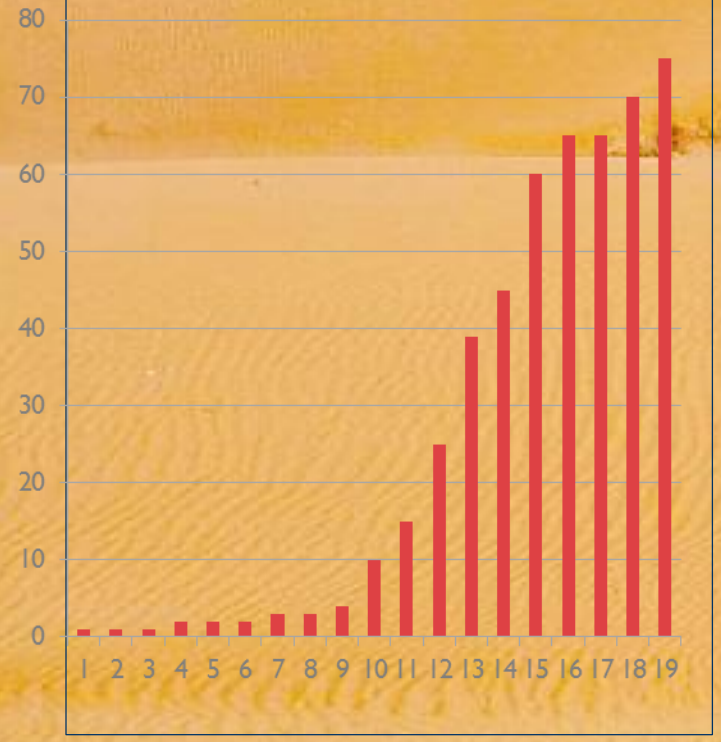
- Traditional enterprise accounting systems require projects to pay for the initial purchase of novel technologies
- This creates a reflex to wait for someone else to get on the bus first… and pay for the bus
- Be aware of the fiction those type of costing rules create and get the Scrum Master to improve the situation

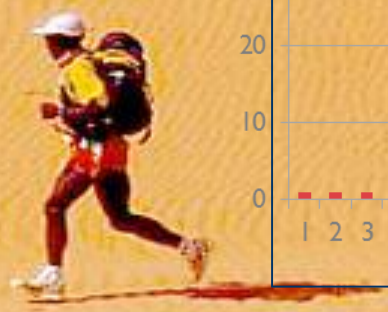
Simplicity is also about removing obstacles to get… some work done!



Early starts - the burn rate trap and cheap early cycle time

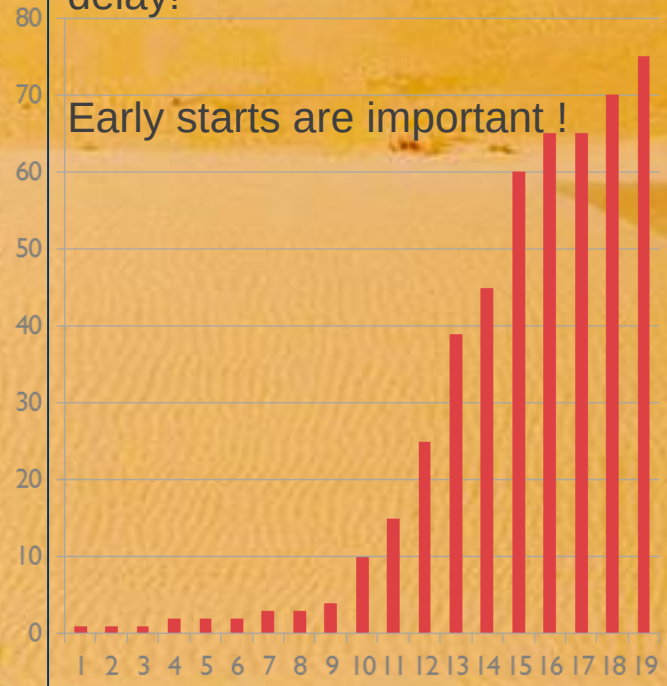
Burn rates early in projects are very low, creating the illusion that things are under control, and there is no point hurrying.





Cycle times early in projects are cheap compared to cycle times at the end of a project. The market clock is ticking and so is cost of delay!

Early starts are important !



Simplicity and simplistic are not the same.
Put an end to Fuzzy Front End and choose the correct indicator … to get to work !

2) Waging War – Time As A Constraint

Time as a constraint in Scrum

Scrum has a timeboxed approach to delivery. Here are the benefits:

- **If you must fail, fail fast.** This allows for quick feedback so things will not drag on forever in a losing cause as the next Sprint brings new perspectives. Put an end to ZOMBIE projects
- **Daily Scrums start on time.** No exception. This is a rule in all professional sports. Even superstar athletes must be on time for practices or face the consequences
- According to **Dave Snowden**, there are 3 necessary, but not sufficient conditions for innovation:

1. **Starvation of ressources**
2. **Time pressure**
3. **Perspective shift**

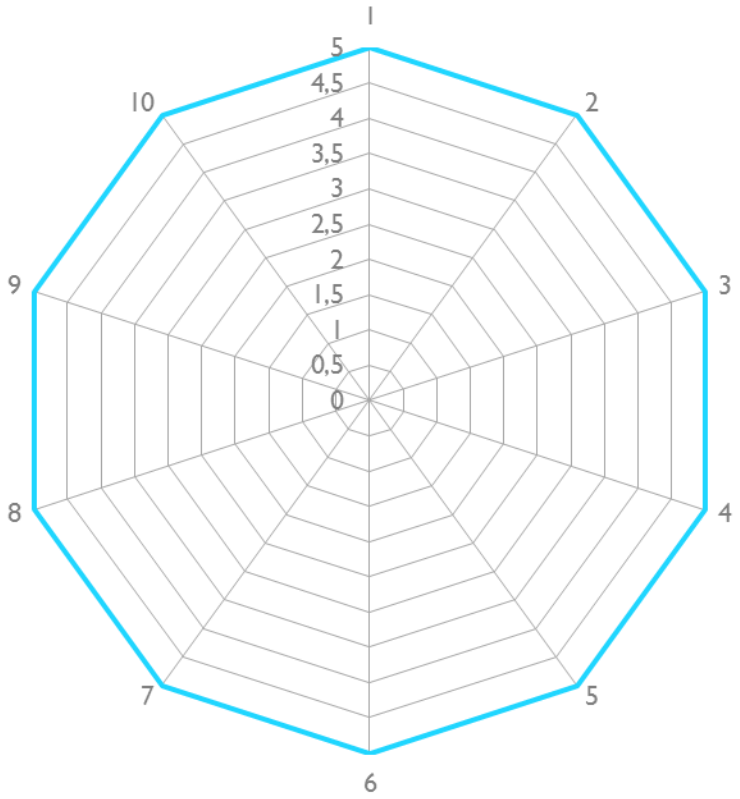
SCRUM has built-in time pressure in each Sprint.

Simple but effective !

3) Attack by Stratagem - Openness & Courage from the Scrum Master

Walled Cities & Scrum Values - Openness and Courage

- The use of the radar graph radiator for openness and courage.
- The first team member who must be open to criticism is the Scrum Master – The gatekeeper to openness and courage who must lead by example.



Scrum Master Evaluation during retrospective – Less is good !

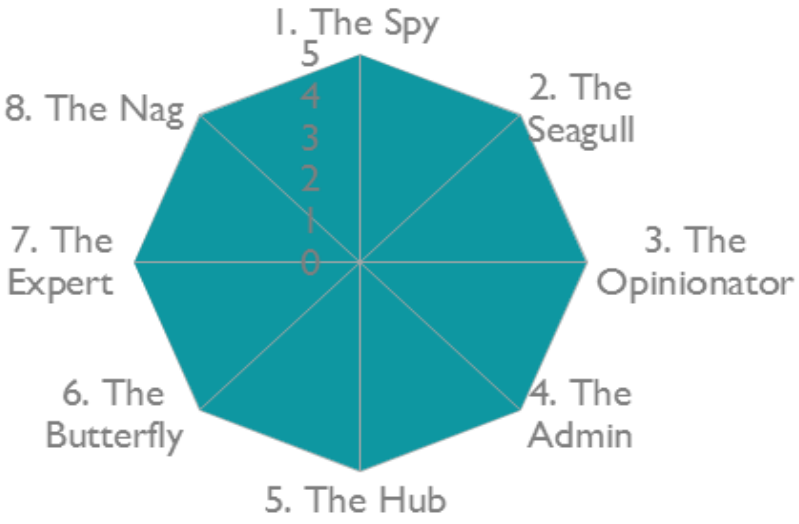
The Scrum Master in Failure mode?

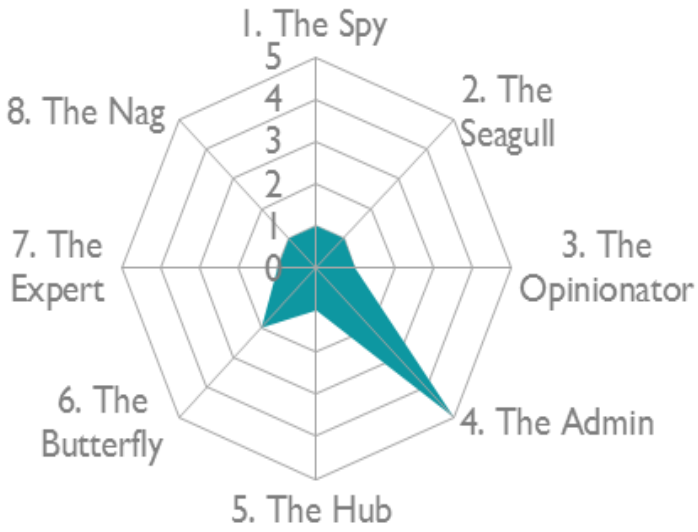
1. **The Spy –** Spends just enough time observing the team to pick up topics for the next retrospective and then slinks off into the night
2. **The Seagull –** Swoops in at stand-ups. Poops all over the team with well-intentioned observations or advice, and flies away again
3. **The Opinionator –** Expresses opinions often, gets attached to them, and loses the objectivity needed to coach the team to have great discussions
4. **The Admin –** Undermines team ownership by becoming an unnecessary middle man for meeting logistics, access requests, and other administrivia
5. **The Hub –** Acts as the center of the universe for communication between team members and for task-level coordination
6. **The Butterfly –** Flits around from team to team, landing just long enough to impart a pearl of wisdom or pose a philosophical question
7. **The Expert –** Gets so involved in the details of the team's work that the forest gets lost in the trees
8. **The Nag –** Helpfully 'reminds' the team to start stand-ups, update the storyboard, complete the tasks they committed to, and so on

Scrum Values - Openness and Courage

- Have yourself evaluated by the team at retrospective time and keep a history of the radar charts as radiators
- **In this case**, the less dark matter the better!

Q1 2014 → **Q3 2014**





Scrum Master Evaluation during retrospective – More is good !

The Scrum Master in Success mode ?

1. **The Magician –** Asks questions that – voilà – reveal what is there but could not be seen
2. **The Child –** genuinely wonders ‘why?’ and is propelled by an insatiable curiosity about life and everything in it
3. **The Ear –** Hears everything but gives people room to grow by not responding to all of it
4. **The Heckler –** Keeps it fun and light and just a little off balance to jolt people out of complacency
5. **The Wise Fool –** Asks the dumb questions that enlighten and inspire others
6. **The Creeping Vine –** Makes small moves, imperceptible to the team, that relentlessly pull them back to the core of agile bit by bit
7. **The Dreamer –** Bravely gives voice to possible futures waiting to be created
8. **The Megaphone –** Makes sure all voices are heard, especially the voices of the oppressed

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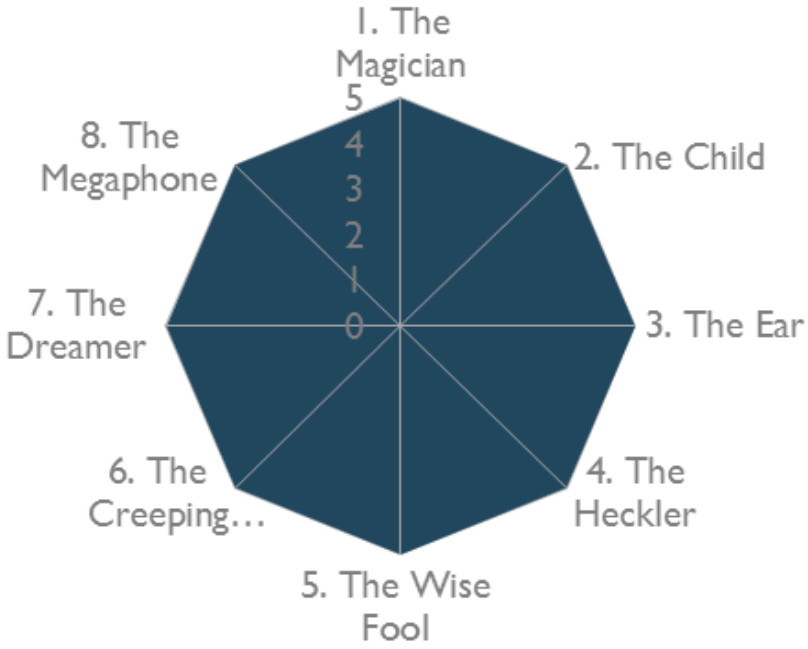


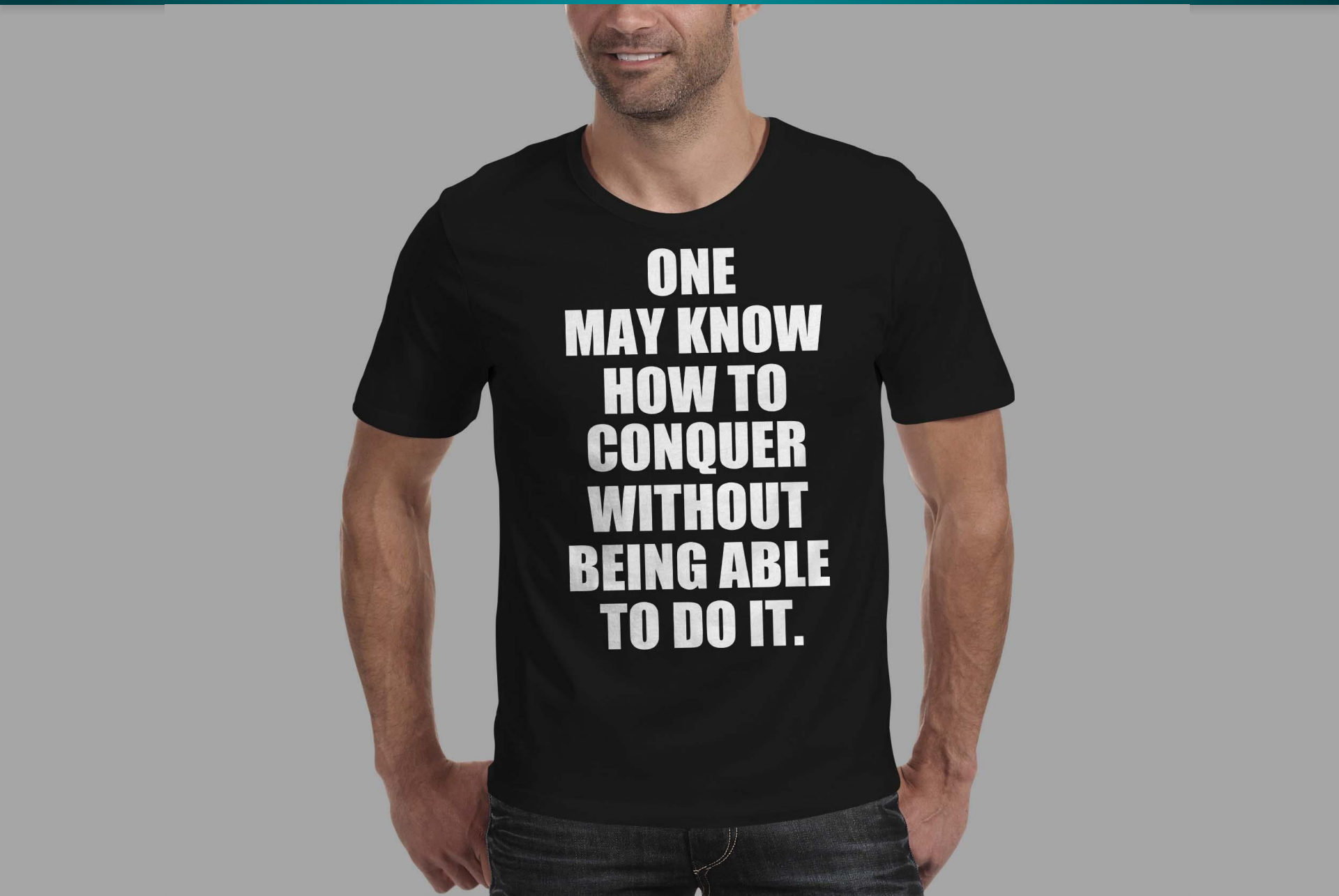
Scrum Values - Openness and Courage

- Openness and Courage start early and occur continously
- In order to ‘inject’ these values, the Scrum Master must show leadership
- At retrospective time, you should use this activity at the beginning when you feel openness and courage are an issue within the team

Easier said than done.

Scrum Masters: You must leave your ego at the door and allow your humility, openness and courage to foster RESPECT so it emerges within the team.

4) Tactical Disposition – Risk Management and The Law of 50



Scrum Versus Other Agile Methods

Method	Practices	Roles	Deliverables
SCRUM	5	3	3
FDD	8	14	16
XP	28	7	7
Crystal	14	10	25
Dynamics	15	12	23

Because of its ‘lightness’, authors in the field evaluate SCRUM as being the weakest for risk management

Sprint Decomposition

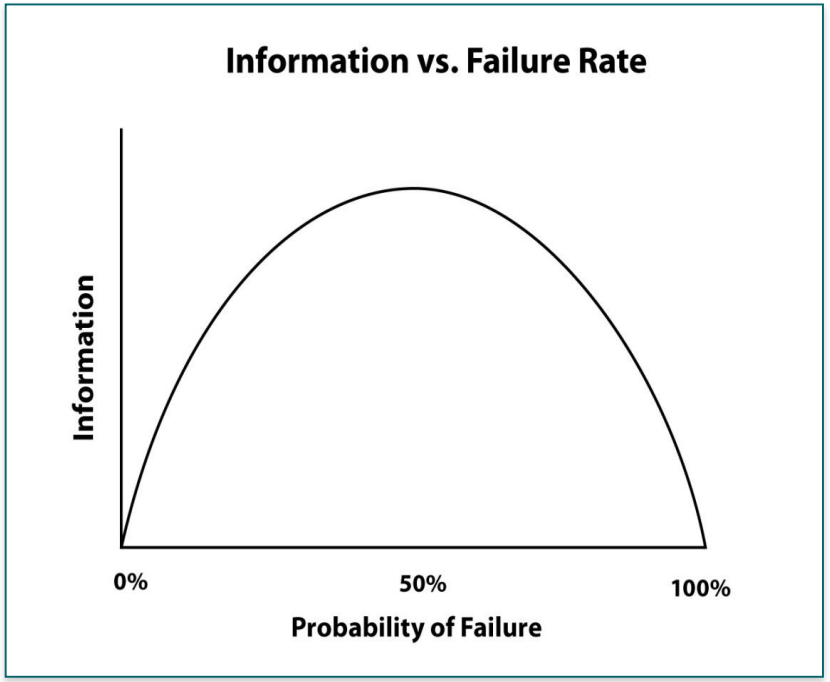
A Sprint can be about :

- Delivering product increments
- Validating assumptions
- Obtaining feedback
- Managing dissent*
- Reducing risk

* Dave Snowden Berlin Scrum Gathering Keynot

The Quest For The Most Valuable Information

- **DRUG TESTING:** To ascertain the toxicity of a new drug, scientists aim for an optimal death rate of 50% among the animals tested.
- **OS SEARCH ALGORITHMS:** In order to find a file, a binary search engine is used so that after each step, 50% of the problem is solved.
- **ENGINEERING:** When an engineer finds a problem in an open loop flow, he starts his analysis at mid point.
- **WINE PURCHASES**: When a new wine hits the market, you would usually try one bottle before buying a case so you can process new information and reduce your risk.*



* In this instance, don't get half a case!

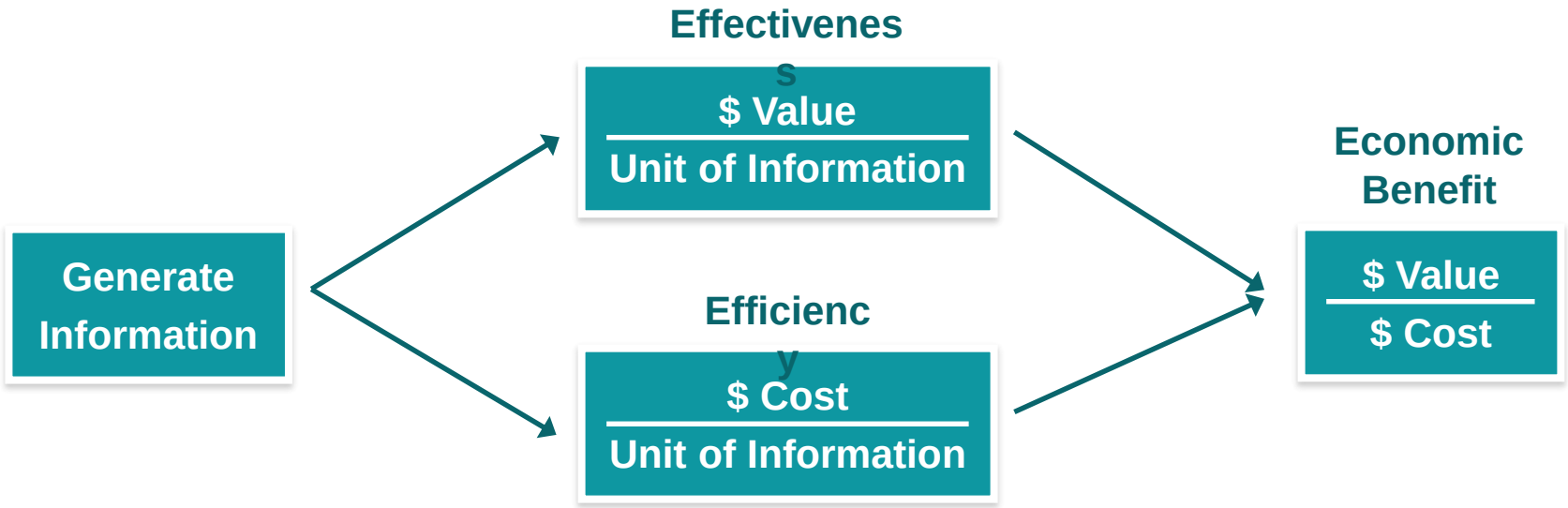
What Is Valuable Information?

- If you undertake an experiment and succeed knowing beforehand your chance of success was 90%; you have learned very little.
- Likewise, if you build a prototype, expecting to fail and do so, you have not learned anything at all.
- If you succeed when you were sure to fail, you have gained valuable information.
- And conversely, if you fail when you were certain to succeed, you have gained valuable information.

DO NOT UNDERTAKE TRIVIAL EXPERIMENTS !

Effectiveness V Efficiency - Value V Cost

Even though there is a relationship between information collection and risk reduction, optimal value is achieved at the apex of the failure curve.



"Doing the RIGHT thing (effectiveness) is as important as doing it RIGHT (efficiency)"

Final Commentary on The Law of 50

- The number of SCRUM artefacts, principles or roles has nothing to do with the skills required to reduce risk through information generation. This in itself is a non agile statement!

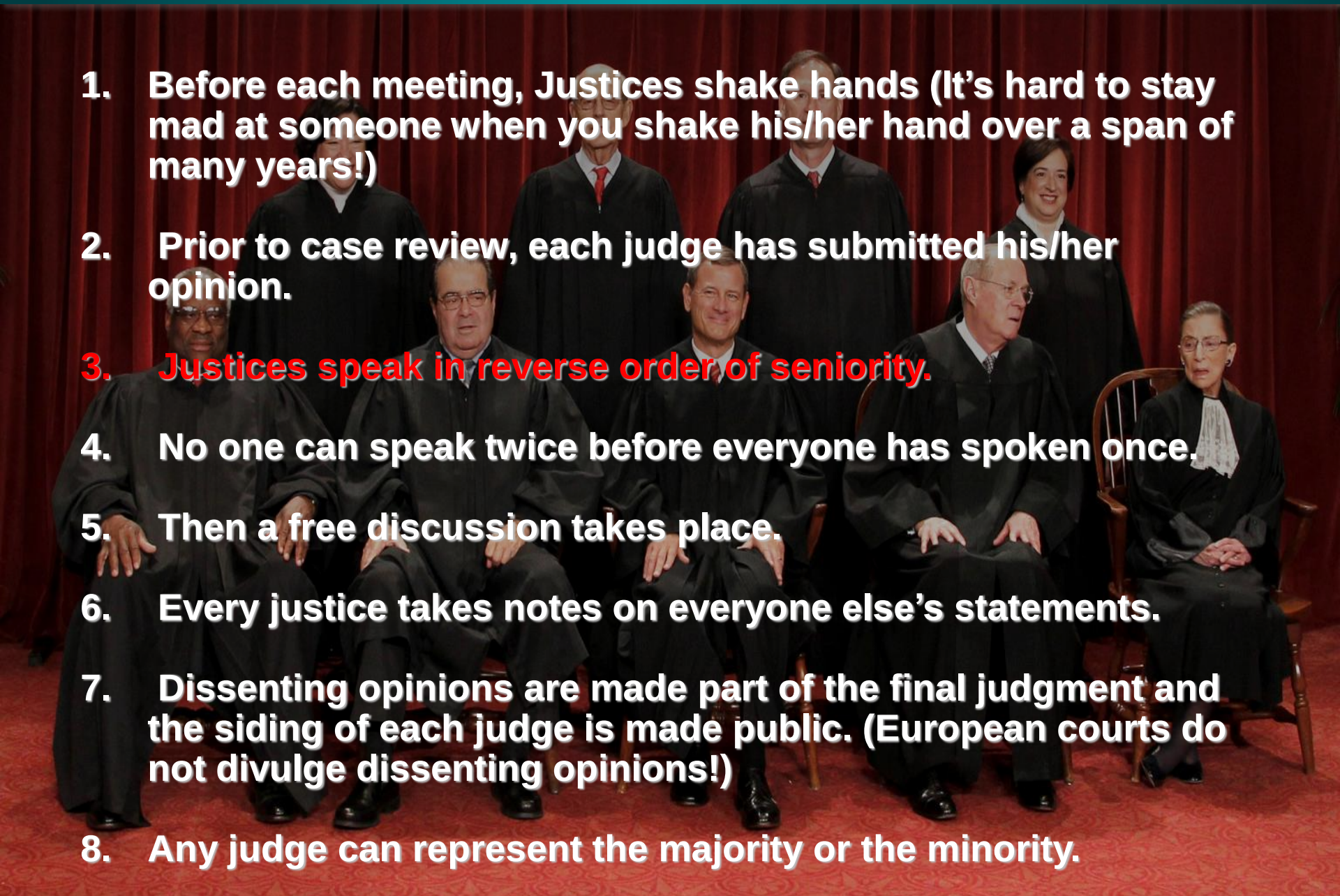
- The team should ride the effectiveness curve when searching for information to reduce risk, validate assumptions, test prototypes and design proofs of concept.

Simplicity in this case is counterintuitive and requires a lot of thinking because effectiveness meets efficiency!

5) Energy – Me, We

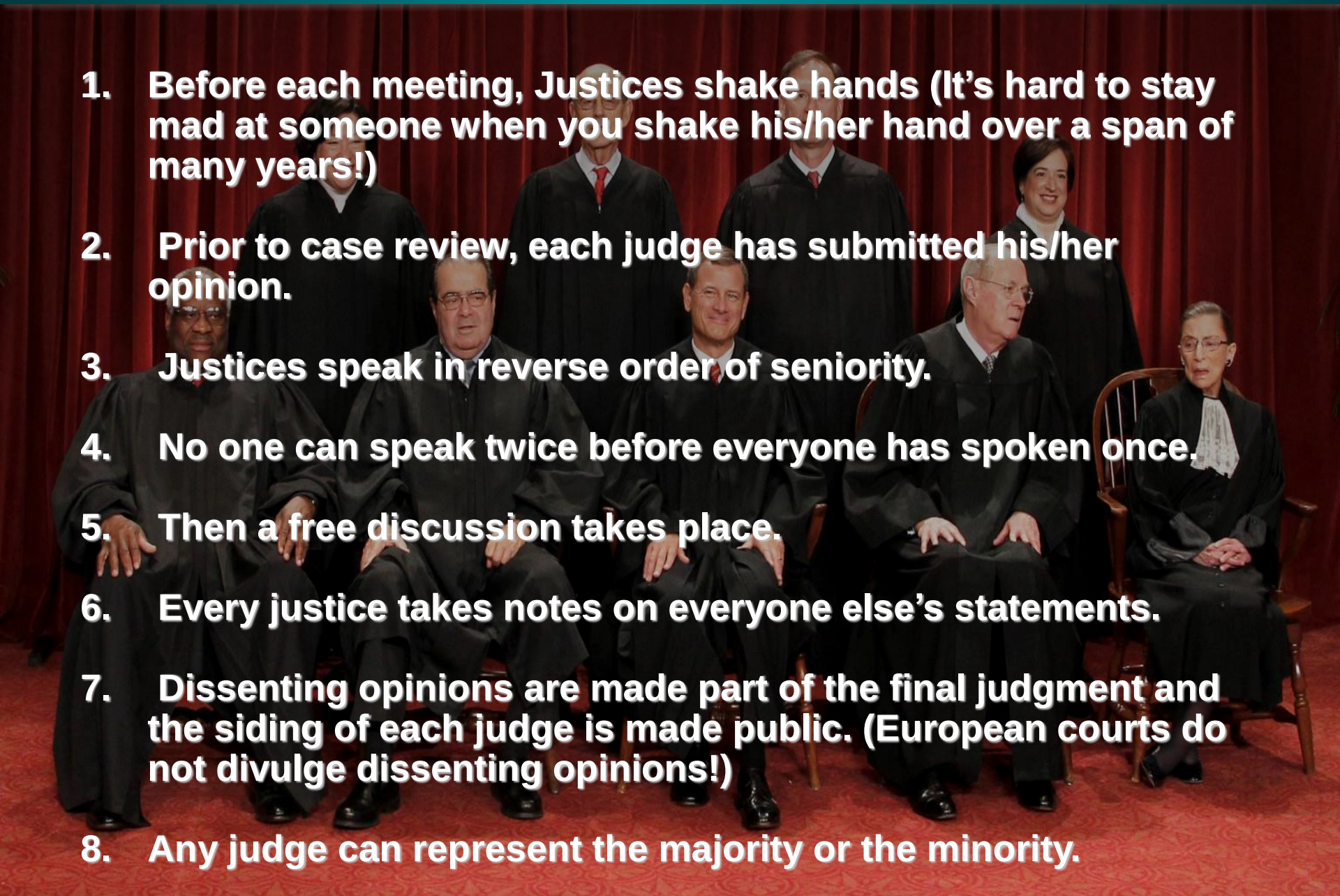
Chief Justice John G. Roberts is first among equals!

Supreme Scrum Rituals



1. Before each meeting, Justices shake hands (It's hard to stay mad at someone when you shake his/her hand over a span of many years!)
2. Prior to case review, each judge has submitted his/her opinion.
3. Justices speak in reverse order of seniority.
4. No one can speak twice before everyone has spoken once.
5. Then a free discussion takes place.
6. Every justice takes notes on everyone else's statements.
7. Dissenting opinions are made part of the final judgment and the siding of each judge is made public. (European courts do not divulge dissenting opinions!)
8. Any judge can represent the majority or the minority.

Supreme Scrum Rituals



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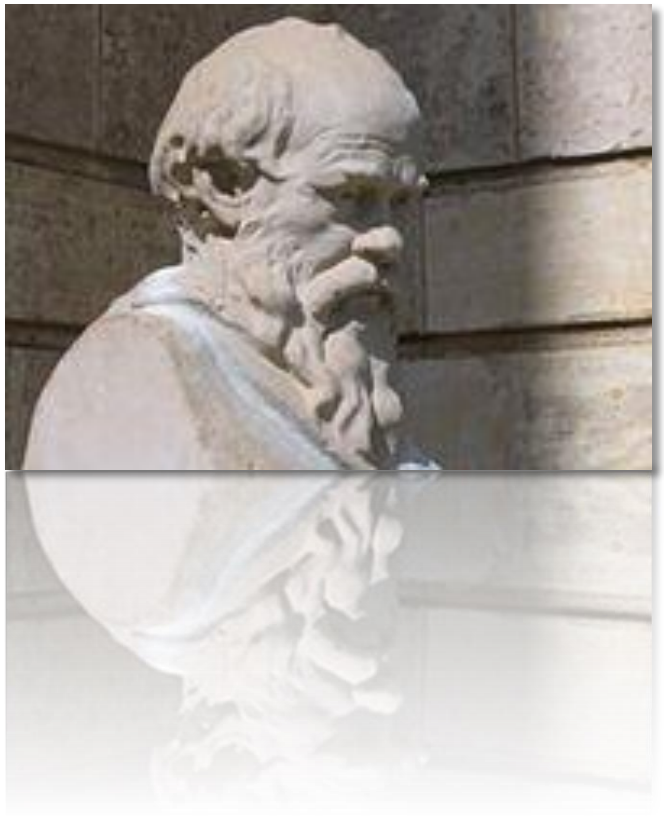
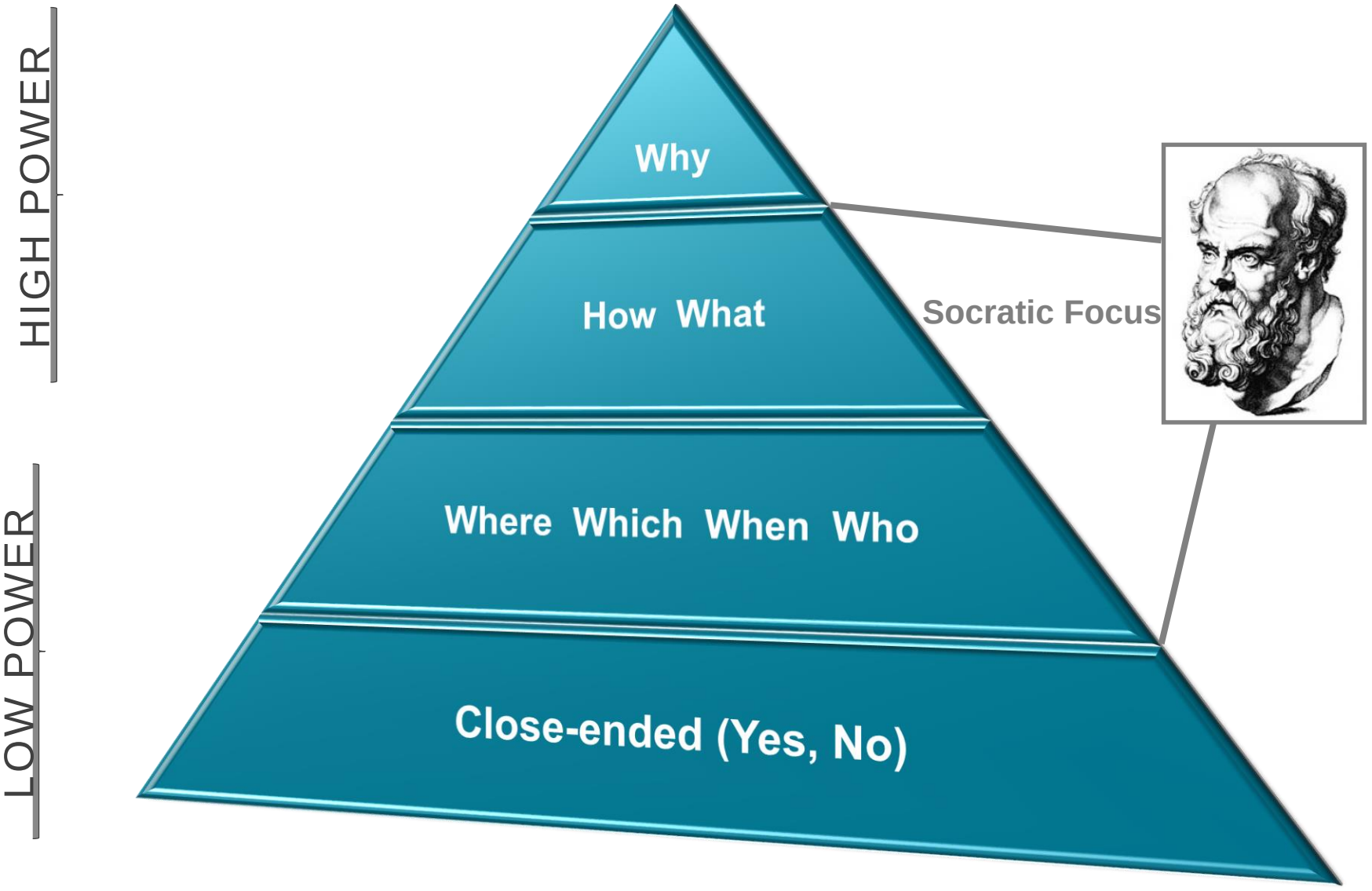
Teamicides

Don’t destroy your teams by :

- Tolerating excessive noise that is not work related – (Mobile phone, landlines that ring 10 times before voice mail kicks in)
- Wearing EAR BUDS. NEVER!
- Using Socratic questioning to lead, impose your will. In court, this is similar to leading and badgering a witness!



The Hierarchy of Questions



Simple Team Take Aways

- Remember each Supreme Justice has his/her own T-Skill set.

- Justice Scallia has written memorable right wing judgments and stresses to all that he is not inferior to anyone on the team. His best friend is left wing Liberal Justice Ruth Bader Ginsburg

Simply put: If the Supreme Justices are all equals, then no matter what the perception of your contribution is: Speak up, speak often a sk the right questions!

6) Weak Points and Strong – Cost of Delay

Cost of Delay to Quantify Value and Urgency

- For many years Don Reinertsen has been asking people working in product development:

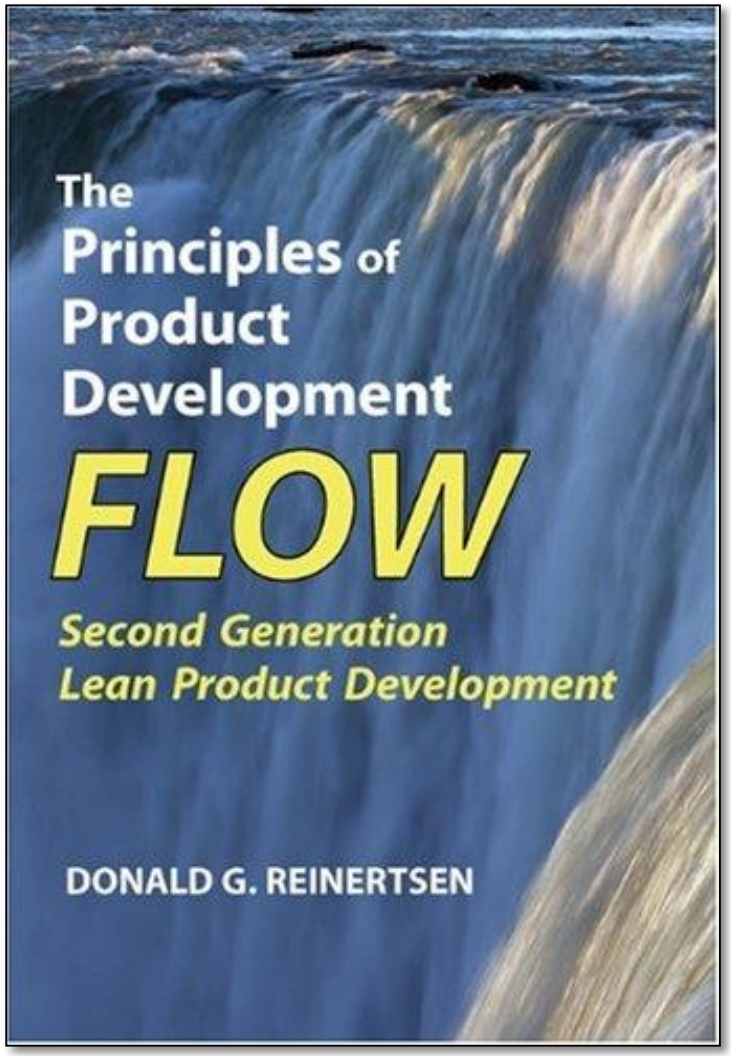
“Is a month of delay worth a million dollars or a thousand dollars?”

- Let’s ask the audience what percentage of people working in product development don't know their internal COD?

A) 0-25%
B) 26-50%
C) 51-75%
D) 76-100%

Cost of Delay to Quantify Value and Urgency

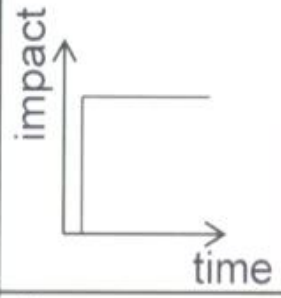
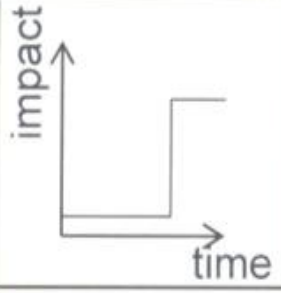
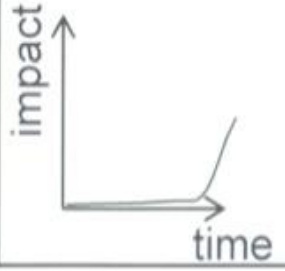
- The Cost Of Delay (COD) is based on the cost of queues.
- COD is required to evaluate the cost of queues, the value of excess capacity, the benefit of smaller batch sizes, and the value of variability reduction.



Cost of Delay – A Scrumish Definition

- The market clock measures the time it takes to respond to a business opportunity.
- The Cost of Delay is dominated by the cost of queues. Any queue on the critical path affects The Cost of Delay.
- In SCRUM we have no critical path per se. In a Sprint all dependencies should be END TO END to foster parallelism.
- But we do have queues. Each Scrum team is in fact a queue!
- We do have ressources in each team. Bottleneck ressources are on the critical path. If they are always relying on others' T Skills to augment their normal capacity, you have a 'critical path' there.

Cost of Delay Paradigm

		**Expedite** – white; critical and immediate cost of delay
		**Fixed date** – orange; cost of delay goes up significantly after deadline
		Standard - yellow; increasing urgency, cost of delay is shallow but accelerates before leveling out
		**Intangible** – blue; cost of delay may be significant but is not incurred until significantly later, if at all

Cost of Delay – No more business as usual!

Simple Agile take-aways from Mr Reinertsen:

- If you quantify one thing, quantify the cost of delay.

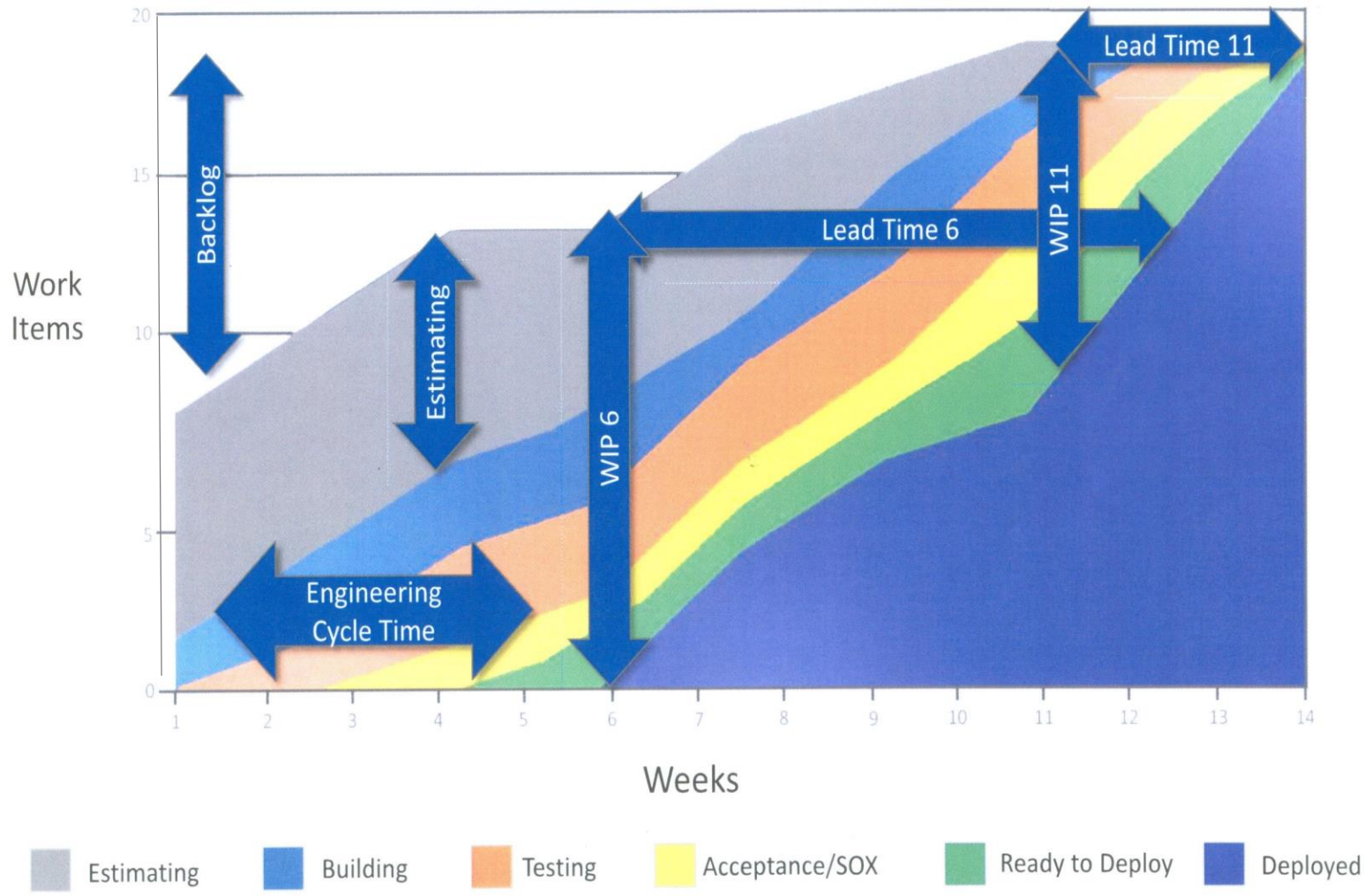
- We have no business trading money for cycle time if we do not know the economic value of cycle time.

- Getting to know your COD will shift your fo

7) Manoeuvering – CMMI Traceability

CFD – Cumulative Flow Diagram

The Burn Up Chart : Ultimate Radiator



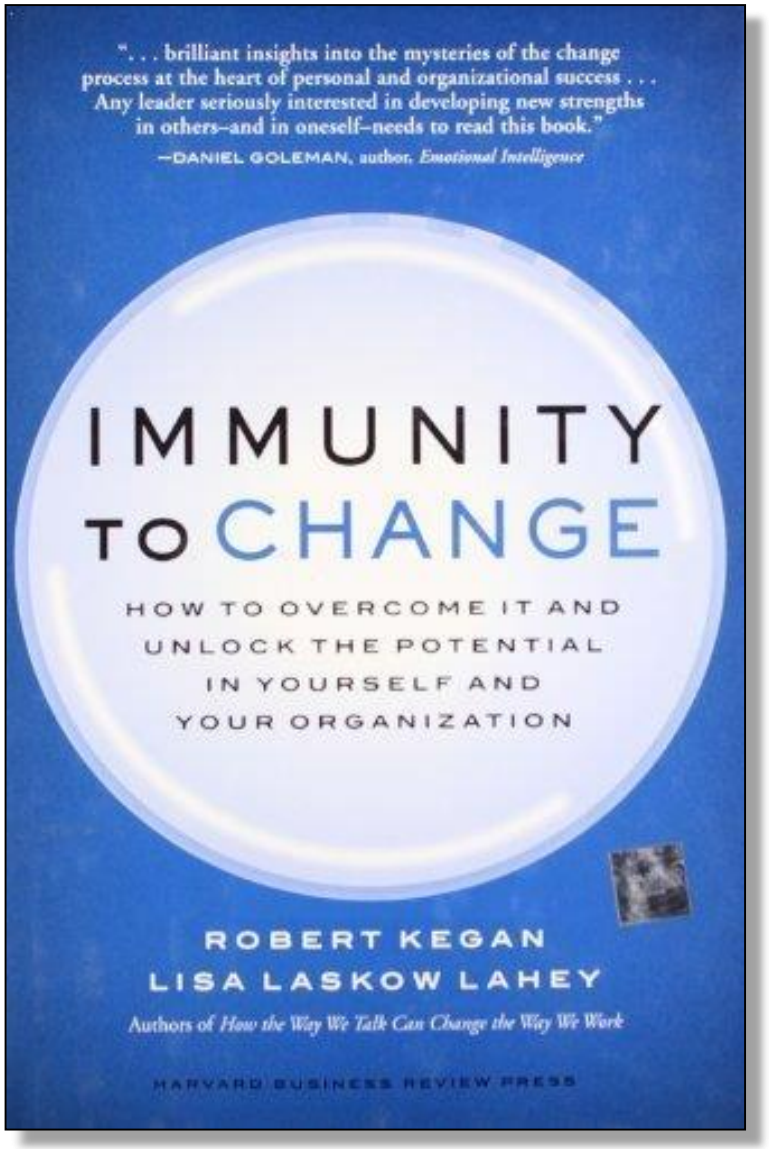
CFD – Visual Effects

- CFDs are not too hard to maintain
- They are visually stunning, simple to understand and content rich
- The executive radiator par excellence
- CMMI V3 compliant for traceability

8) Variations in Tactics – Opportunities For Improvement

Opportunities for Improvements

- Need to make change in your personal life?
- Need to make change at work?
- Need to transform from where you are to where you want to be?
- **This book is a real gem.**
- A special thank you to Joe Pelgrine-CST for bringing this book to my attention at the Berlin Scrum Gathering!



9) Army On The March – Baby Steps or Giant Steps ?

One Giant Step Often Leads to ….

… More Giant Steps !!!!

… But Scrum's Small Steps Allow for …

- Quick Feedback and Variance Reset
- Delaying Decision At The Last Responsible Moment
- Establishing Cadence
- Motivation
- Building Trust

WHAT ABOUT TOMORROW ?
WHAT'S MISSING?

Tomorrow's SCRUM Small Steps will Allow For

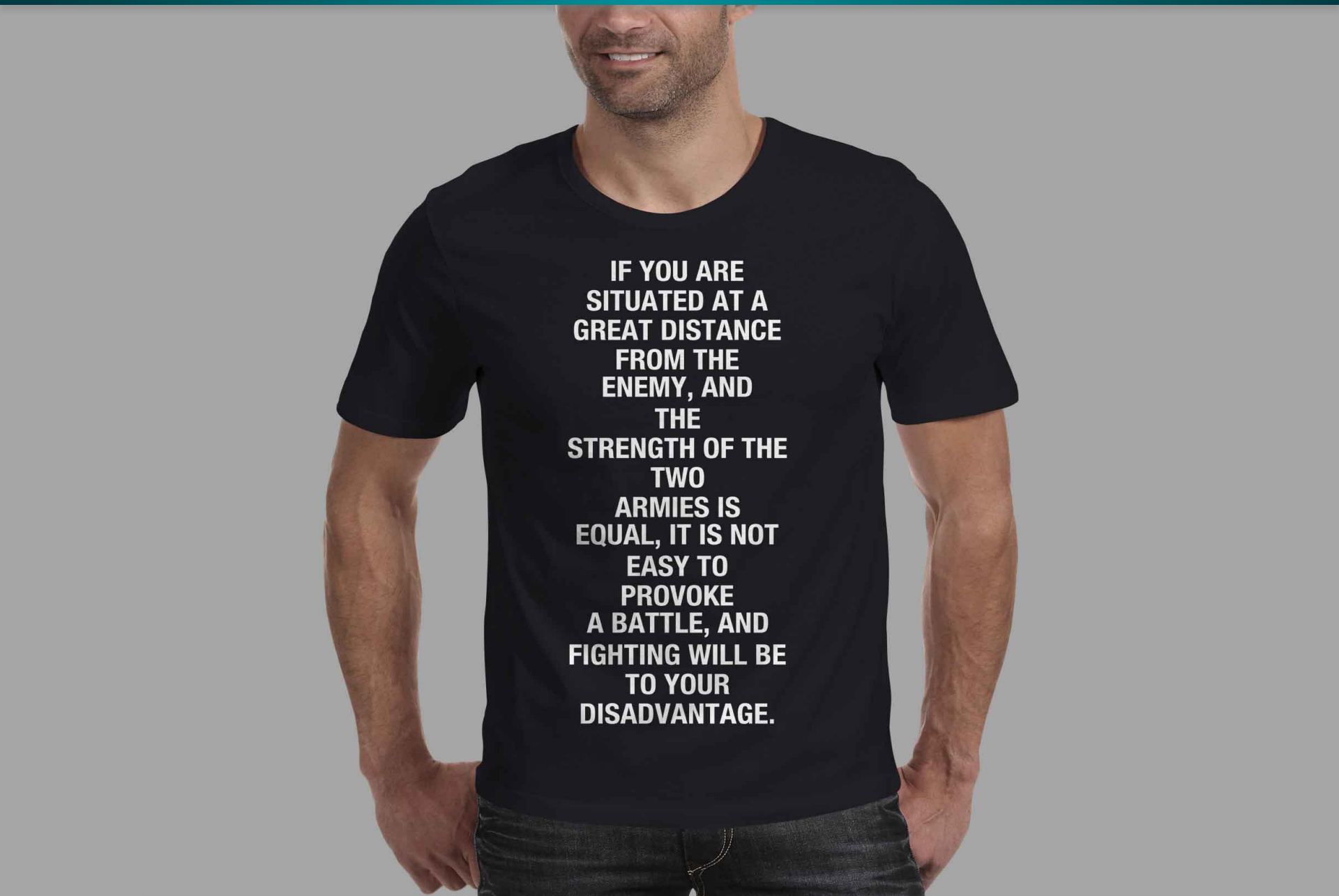
Research is under way to:

- Improving costing decisions using real life options from Chris Matts and Olav Maassen.

- Proving beyond a doubt that big projects increase the number of bugs in a non-linear fashion, hence small batch sizes have one more tangible advantage regarding the number of bugs to manage.

What is unreachable today will be the simple SCRUM bits of tomorrow!

10) Terrain – Culture And Agile Adoption



Cultural Issues & Agile Worldwide

- Britain, Norway, Denmark, Sweden are liberal countries with High Social Capital (High Trust) and are Agile adopters.
- Japan has a high Trust culture but is very conservative business-wise – Agile adoption is lagging.
- Holland is very liberal but also very conservative business-wise – Agile adoption is lagging.
- Latin countries and Southern Europe are not Agile adopters. Will they survive the new order of business ?

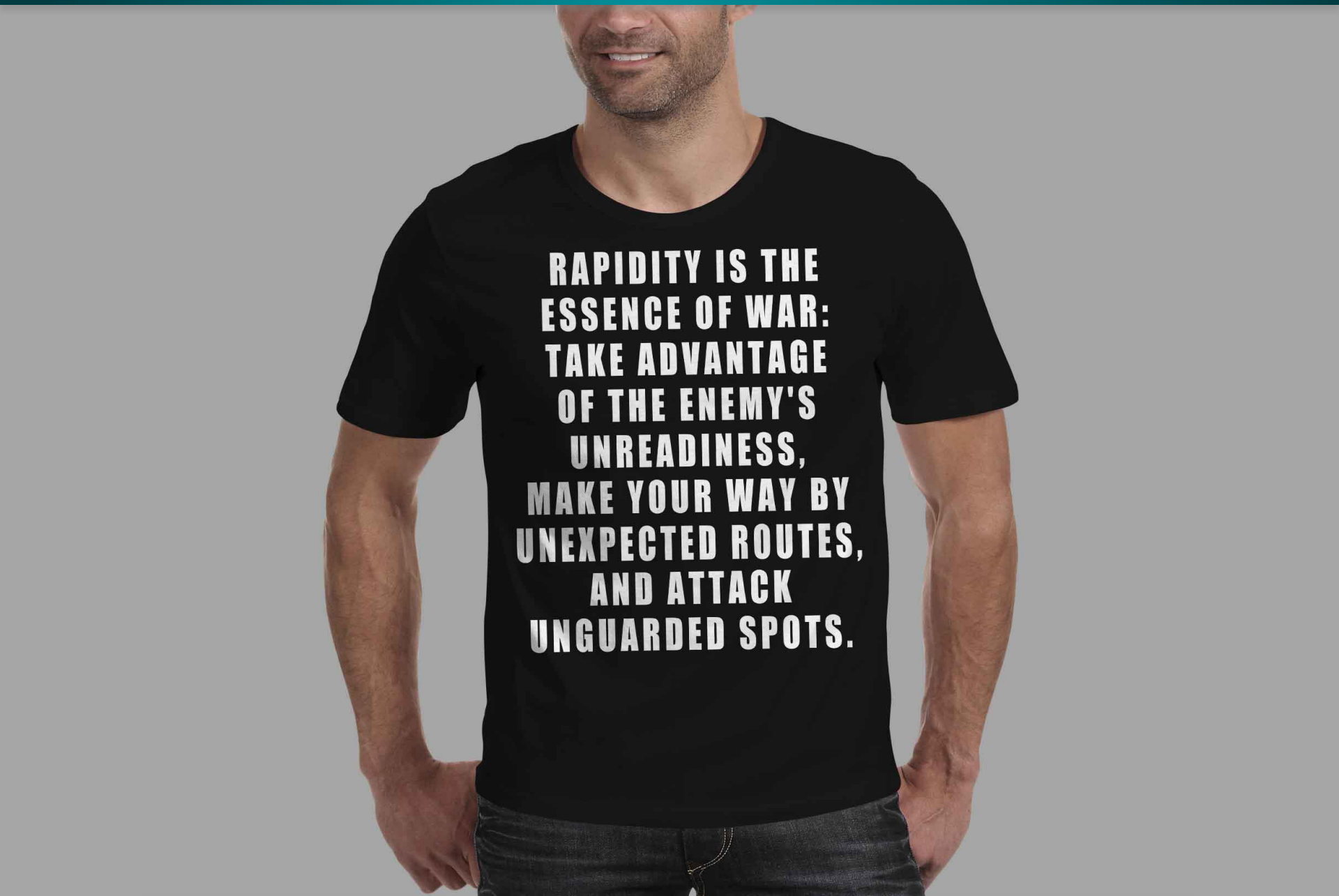
COUNTRIES WITH LOW TRUST OR CONSERVATIVE BUSINESS PRACTICES ARE NOT AGILE 'READY'

Cultural Issues & Corporate Agile

In the corporate world, which of the following 4 C is the Agile Adoption Killer ?

1. COLLABORATION
2. COMPETENCE
3. CULTURE
4. CONTROL

11) The Nine Situations – Analog or Digital ?



Technology, Speed and Staying Analog

Who has used this at school ?

Technology, Speed and Staying Analog

From Dave Snowden:

- The question which comes immediately to mind is the boundary between dangerous dependency and useful tool.

- Some years ago I had access to a piece of research (but have lost track of it) which showed that the calculator generation had less sense of the essential rightness or wrongness of an answer that those of us who started with slide rules. I still have mine somewhere and they were wonderful, they took away the drudgery of calculation, but (and it is an important but) you had to be able to work out what power of ten yourself.

- The calculator generation just get the answer without building that innate sense. Of course any abacus user would wipe the floor with both groups!

- I must admit to a view that we should reintroduce slide rules to schools…

TECHNOLOGY MAKES US LOSE SOME ANALOG SKILLS
LIKE SKEPTICISM ON THE WAY… UP… or DOWN…

Simply Keep The SCRUM Room Analog!

12) Attack By Fire – Sustainable Pace

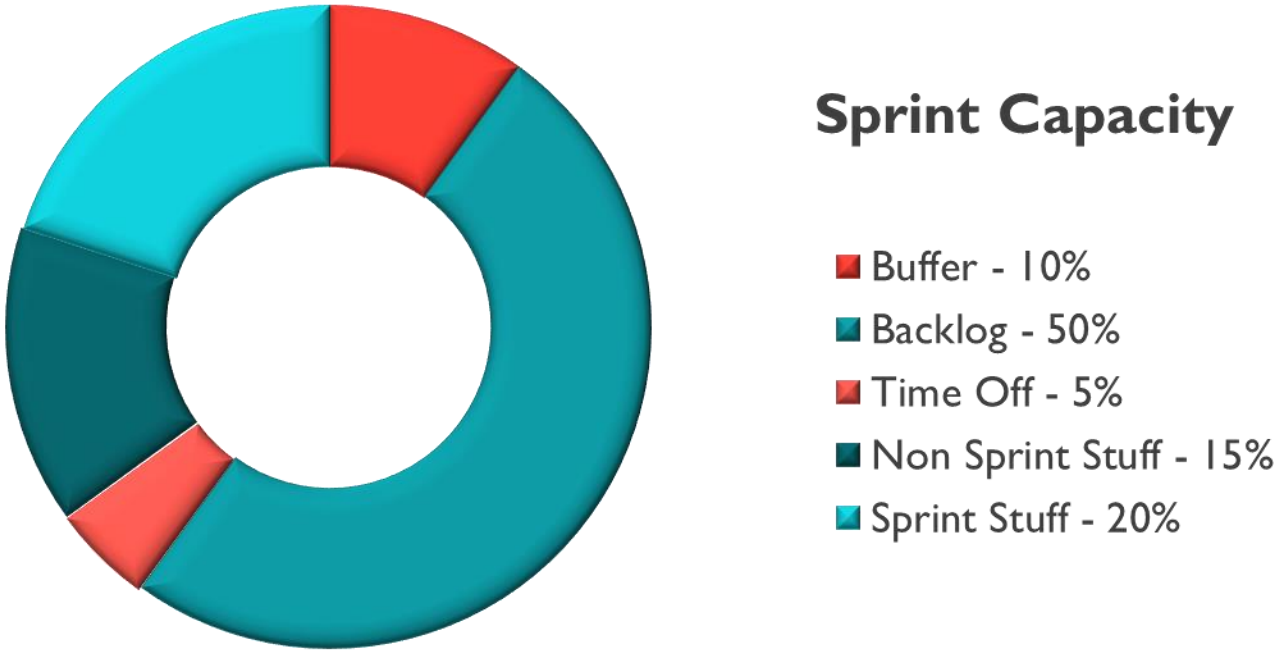
Is your team wound up?

- No Spring Left
- Low Morale
- No Trust
- No Delivery
- No Respect
- LOTS OF OVERTIME

Sustainable Pace – How & Where To Best Achieve It?

- The best way to put cadence back on track with decaying performance and low TRUST is to reduce batch size (Kanban).

- **Audience Quiz :**
  In the graph below, how can this be achieved with the least effort ?

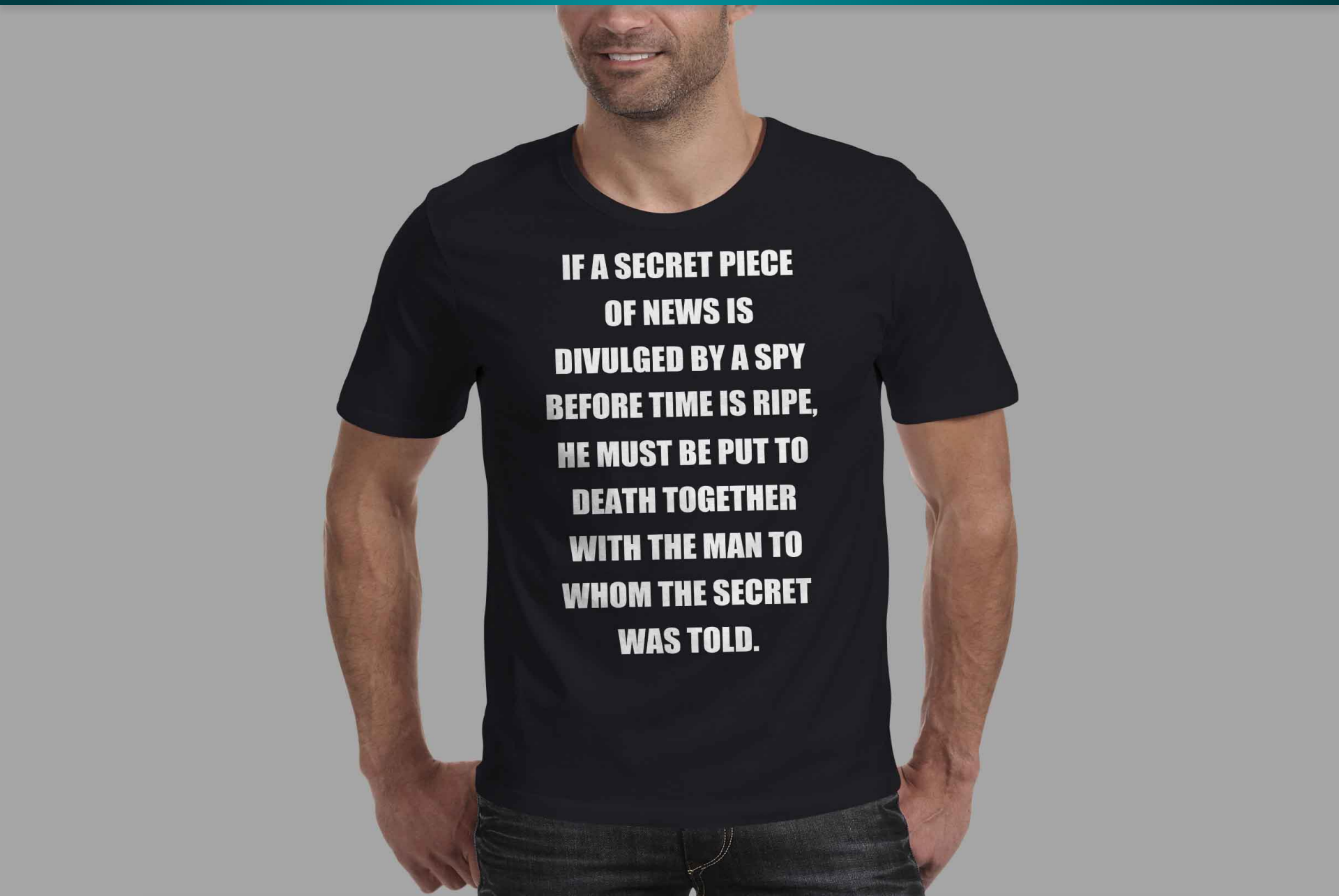


A little KANBAN on the value of slack

- We all know the benefits of small batches.
- Giving everyone more slack is where the trade-off should be to attain optimal value in a ‘Kanban’ paradigm.
- Slack can be used to :
  - Improve responsiveness to urgent requests
  - Provide bandwidth for process improvement
  - Make time for team members to reflect upon how they do their work
  - Switch from busyness mode back to business beat

Slack is like liquidity in finance. It is a simple and beneficial cure to many ailments. When reducing batch size (ie. backlog work), try to match it with a corresponding increase in sprint buffer. Without slack there is no tactical agility possible.

13) The Use Of Spies – The Product Owner



The Product Owner – Understanding U curves

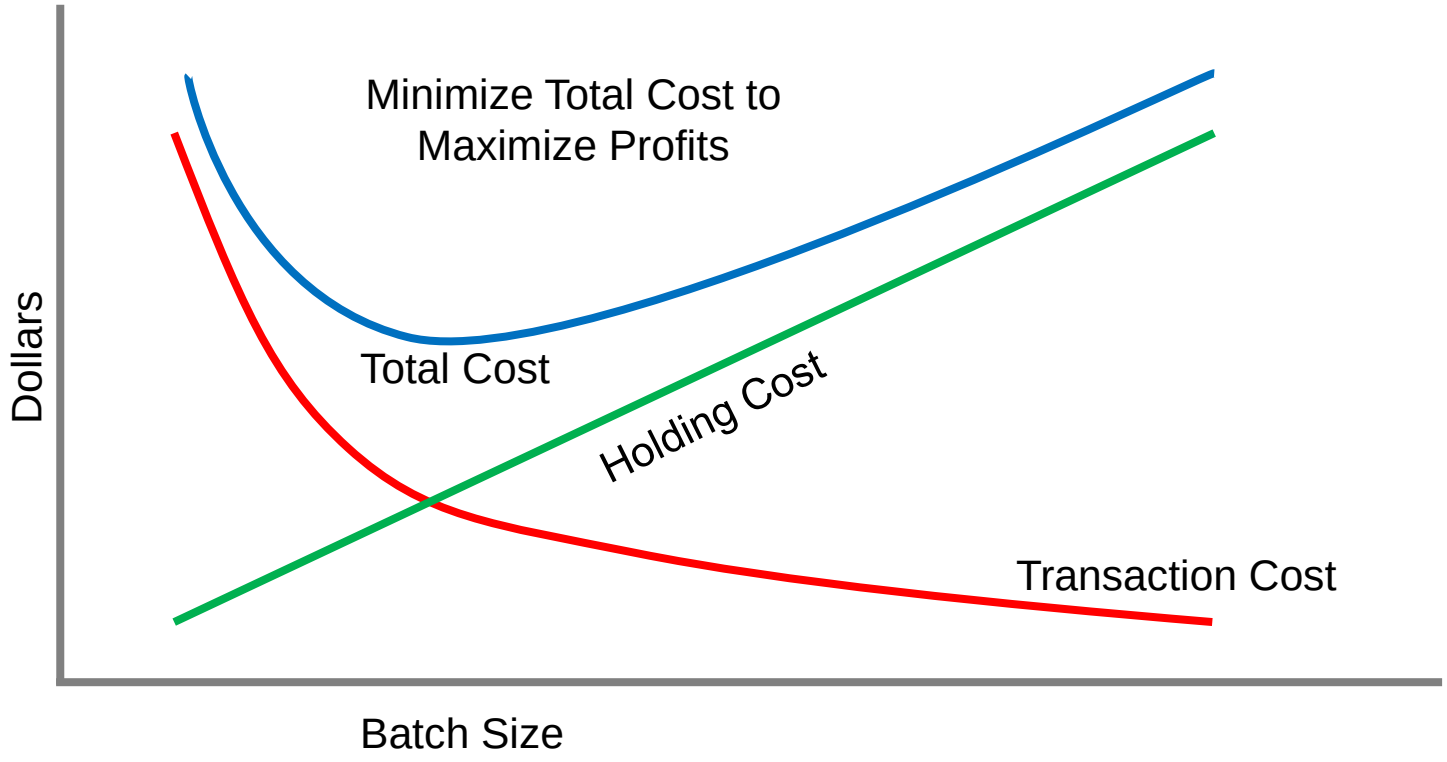
- Has the hardest job on the Scrum Team and is the person dealing with effectiveness the most. (Choosing the right product, Value for money etc.)

- This last section is inspired from the work of Donald Reinertsen's last 2 books and should be the bread and butter of all Product Owners' Economic Rational

- The EOQ U curve was thought of in 1913. People then did not understand it. Today, few do. I will introduce you to many counterintuitive U curves that you must master to get the most out of your money and teams

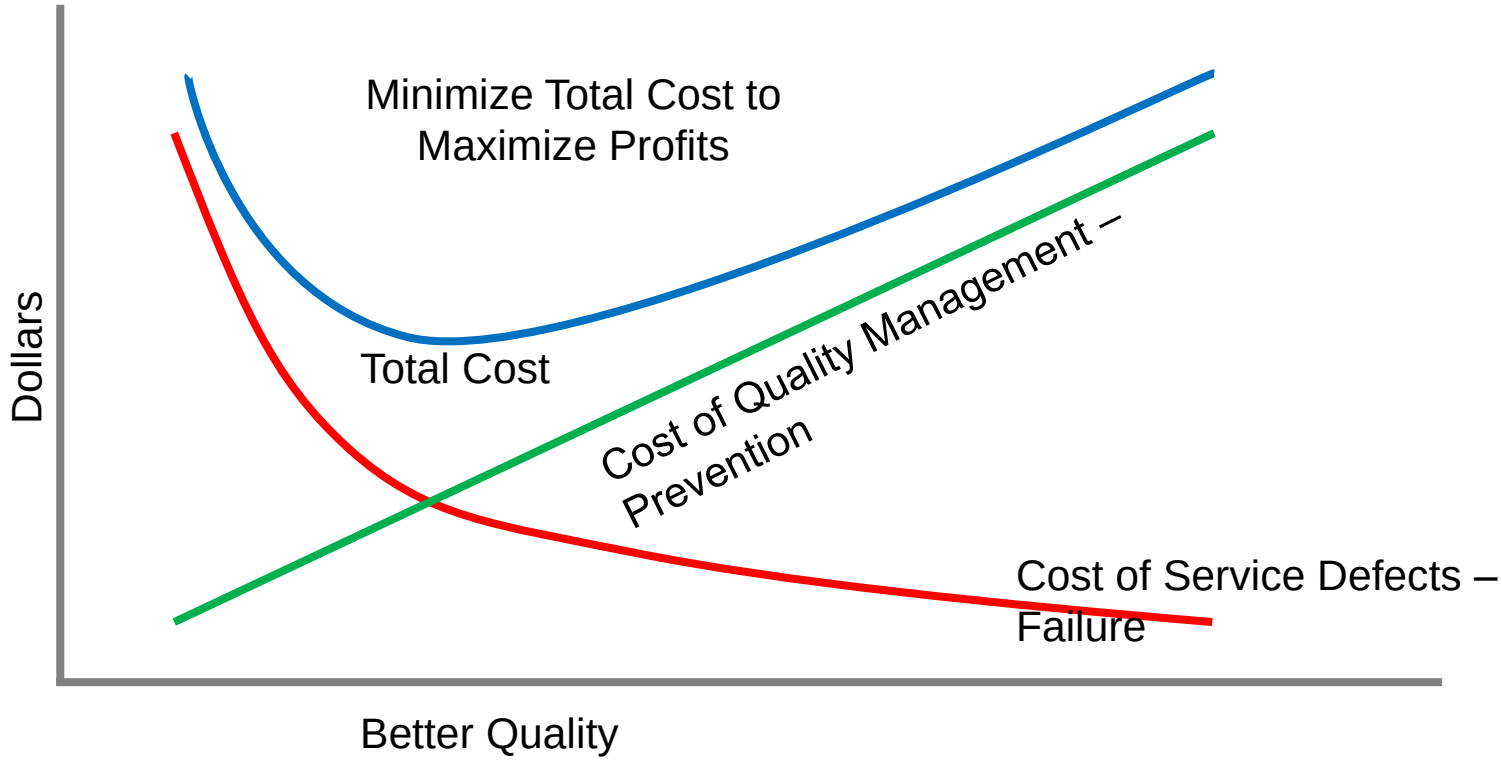
PO - U Curve 1 – EOQ Model 1913

Managing Inventory on Hand



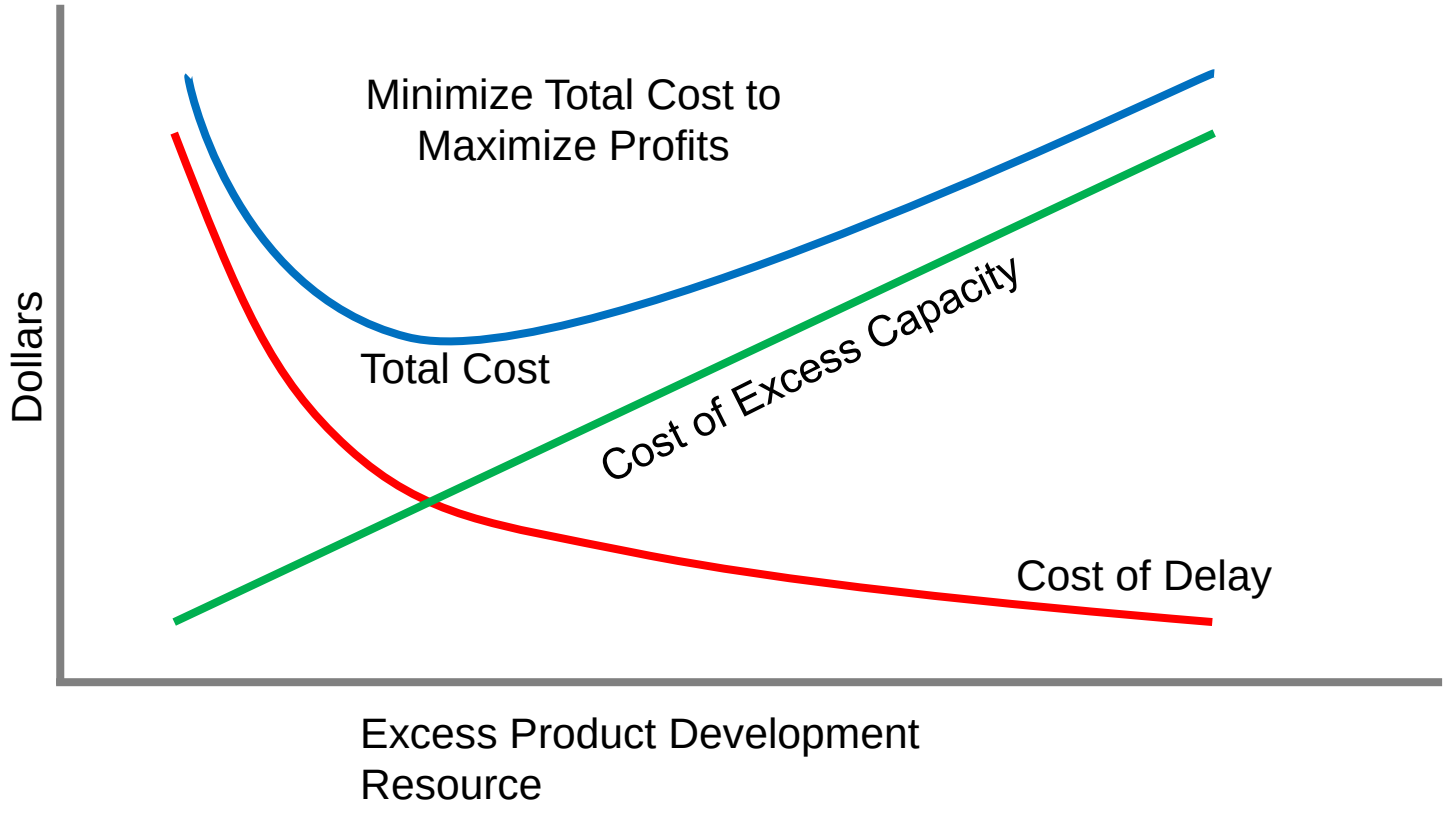
PO - U Curve I1 – Software Quality

Managing Software Quality



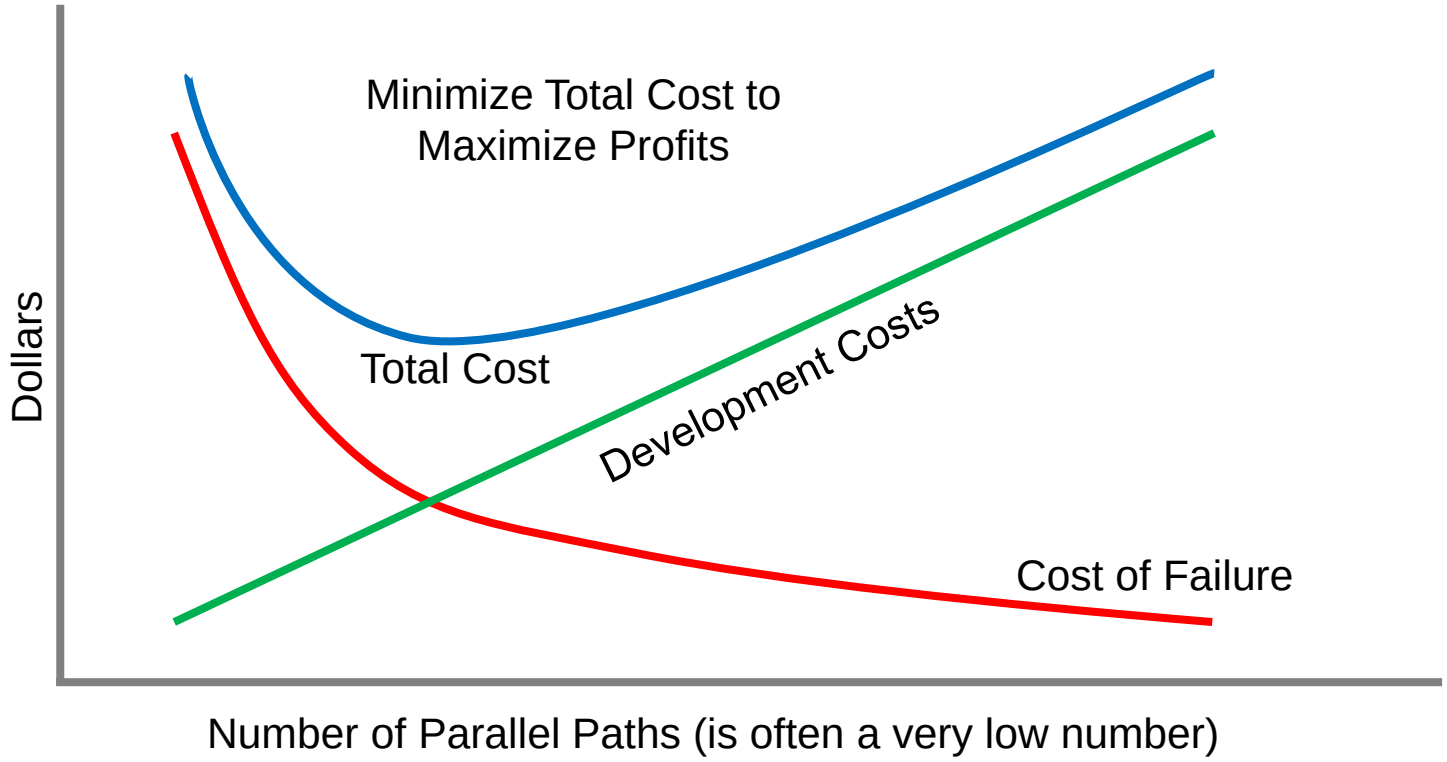
PO - U Curve III – Excess Capacity

Managing Employee Capacity and Cost of Delay



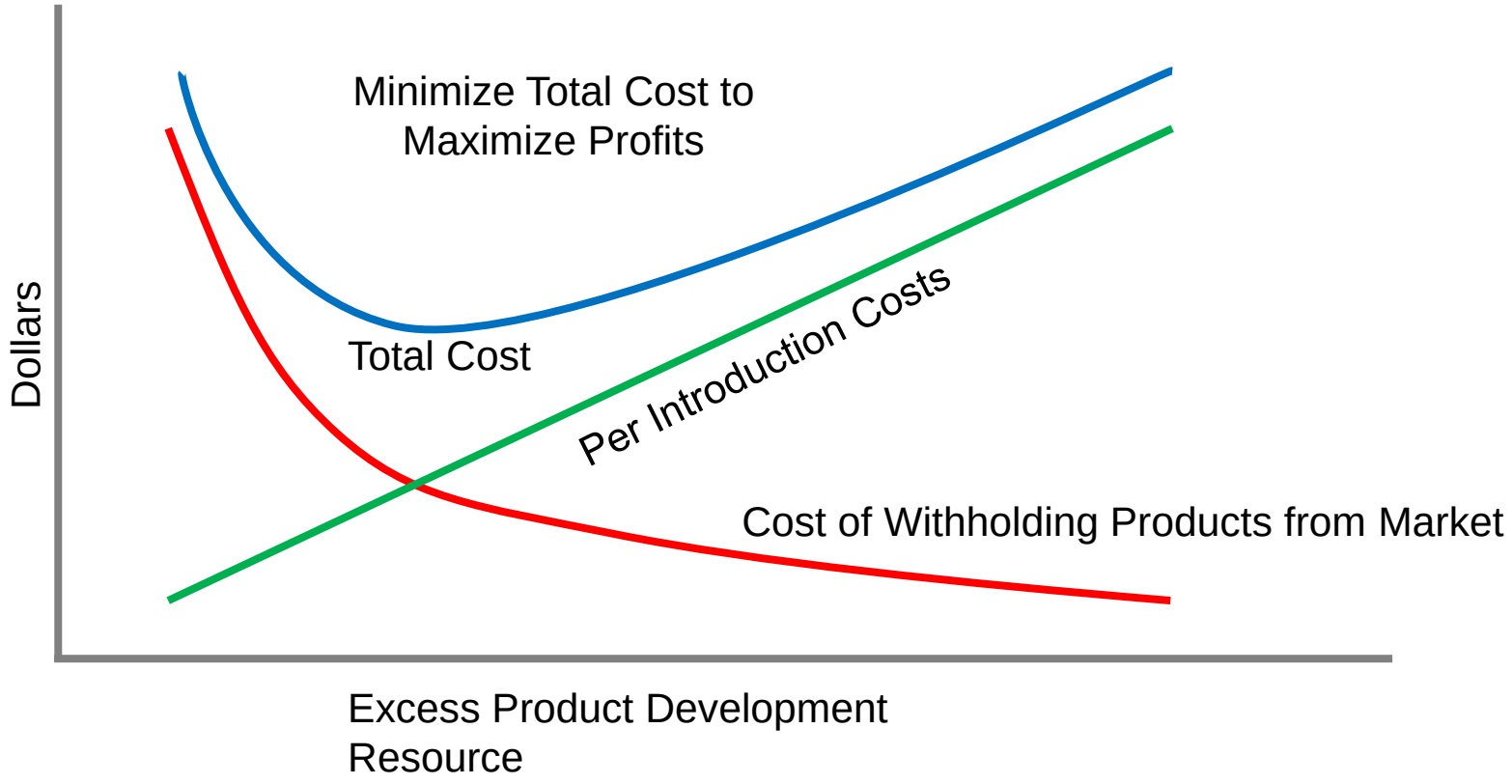
PO - U Curve 1V – Parallel Paths

Managing Economics of Context Switching



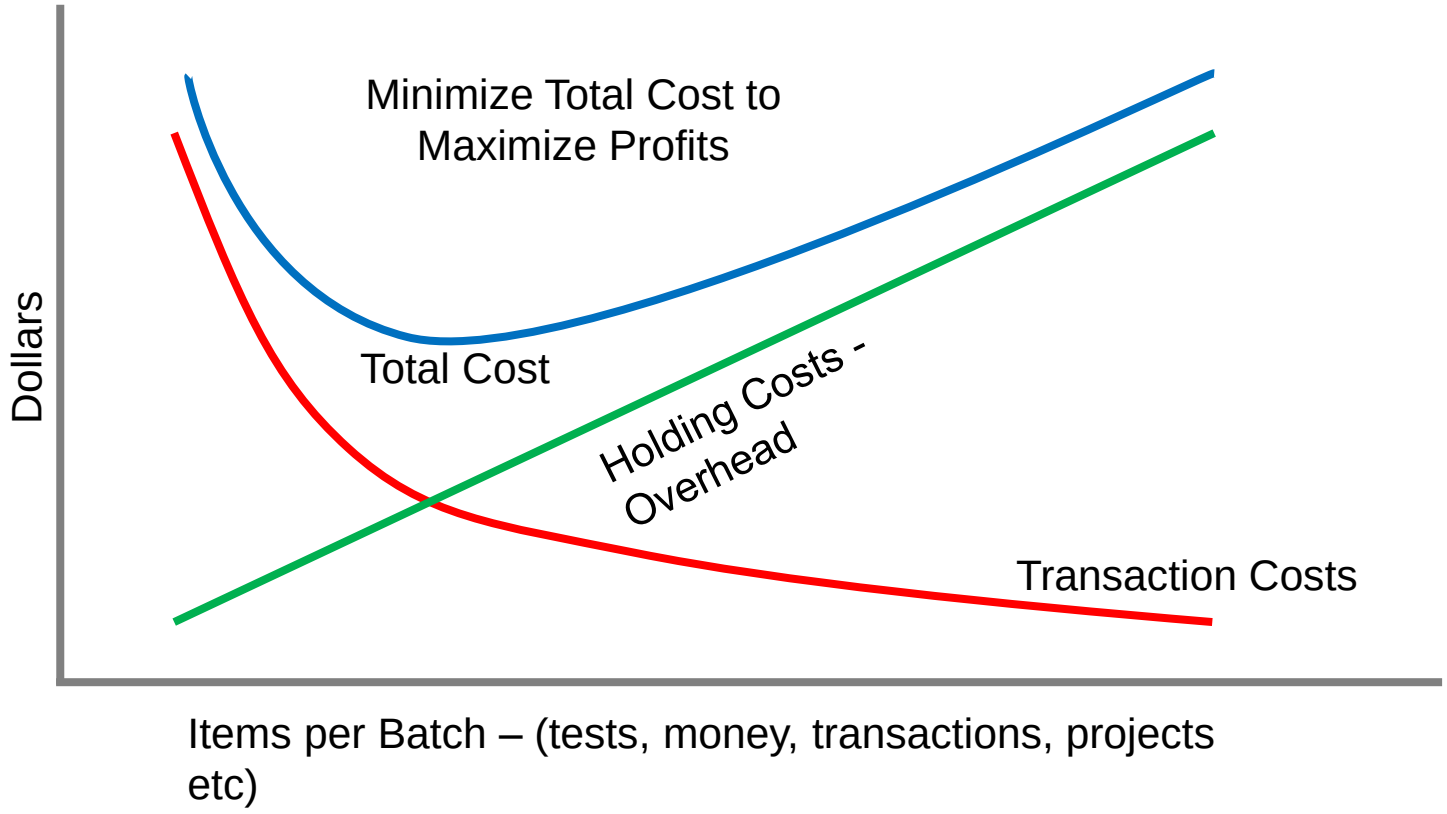
PO - U Curve V – Product Increments

Managing Number of Releases per Year

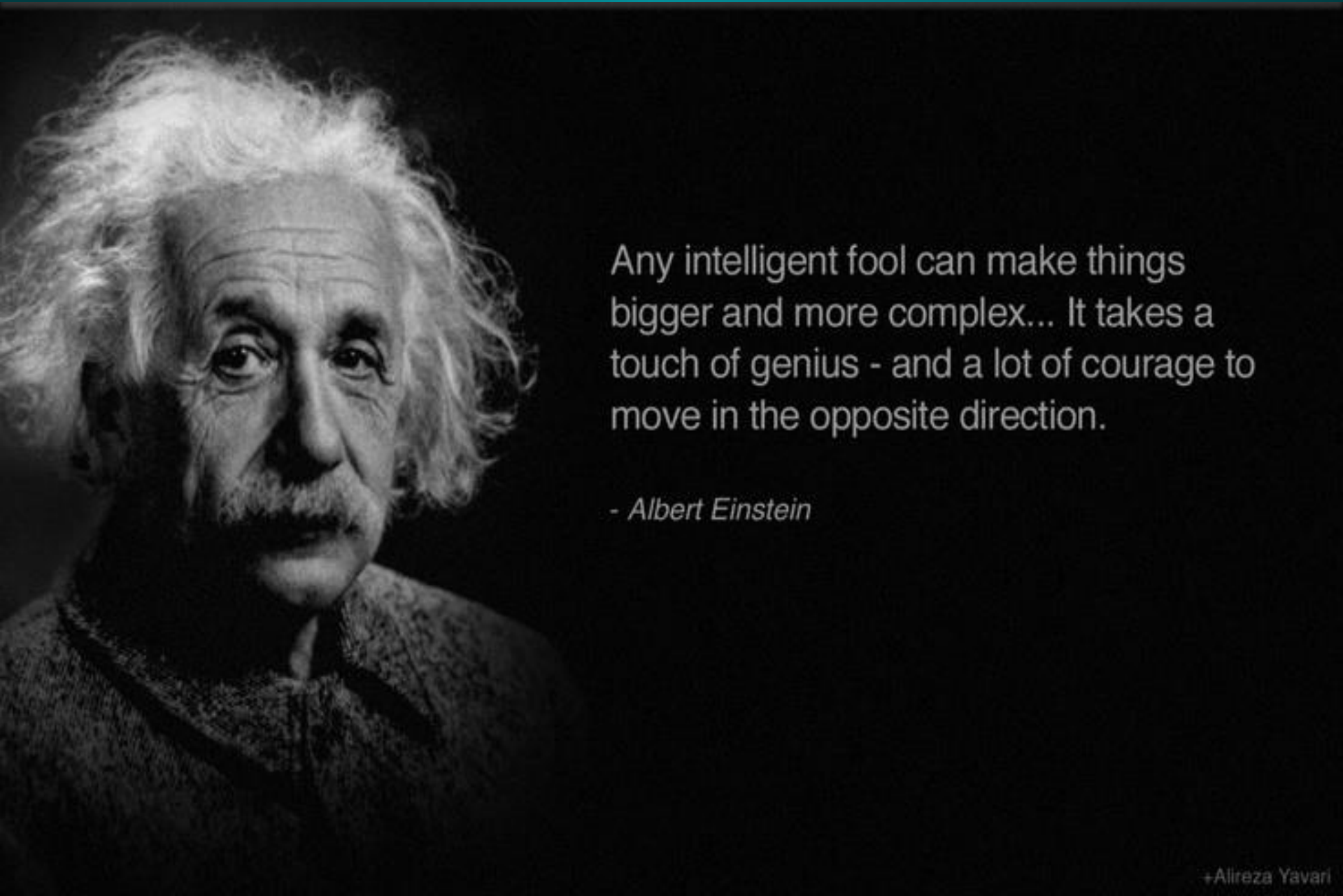


PO - U Curve V1 – Batch Size

Managing Queues

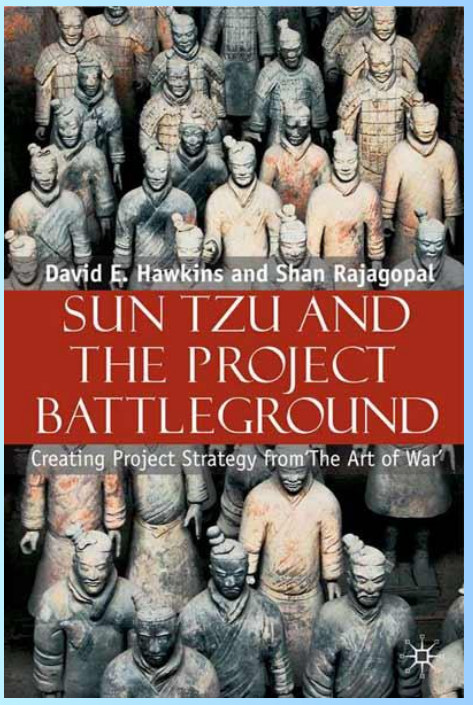


Conclusion – Courage to Simplify



Appendix A - Bibliography

1. **Sun Tzu and The Project Battleground – Creating Project Strategy from the 'Art of War'** by David E. Hawkins and Shan Rajagopal
2. **Coaching Agile Teams** by Lyssa Adkins
3. **Agile Retrospectives** by Esther Derby and Diana Larsen
4. **Lessons in Agile Management – On the Road to Kanban** by David G Anderson
5. **The Principles of Product Development Flow** by Donald G. Reinertsen
6. **Essential Scrum** by Kenneth S. Runbin
7. **Kanban** by David J. Anderson
8. **The Reengineering Alternative** by William Schneider



Appendix B - My Score on Personality Test

	ANALYTICAL	COMPETITIVE	FRIENDLY	EXPRESSIVE
Approach	Logical √	Dominant √	Pleasant	Expressive
	Calm	Measured	Accommodating	Animated
	Realist	Structured √	Humanist	Sociable
Allure	Reserved √	Active √	Warm	Enthousiastic
Voice	Slow and low pitch	Ferm and strong √	Weak with pauses	Full of emotions √
	Hesitant	Normal flow and pitch	Low voice and slow pitch	Animated and fast
Body Language	Not too expressive and few movements	Few movements but precises	Calm and expressive – few movements	Lots of movements – expressive face √
	Head leaning to the front √	Dominating look – head straight up	Polite, reserved – Amicable face, head leaning one way	Joyfull face, head straight up
Behavior towards others	Non emotional, cold, concentrated on analysis, observation and studies	Non emotional in appearance, result oriented, determined √	Emotional, calm, focussed on others well being	Emotional, friendly, sociable, opened, good relationshipswith others
	Distant, prudent, precise,formal, interrogative	Passionate, leader, competitive, dominant √	Good listener, warm, patient, amicable, good intentions	Spontaneous, dynamic, enthousiastic, convincing, expressive
In general, I do not like	Fast pace and crowds	Slow flow √	Risk √	Be alone
At work, I like	Processes, structures, work alone	Reach my objectives √	Team work	Meetings √
	Proofs √	Control the process √	Have time to think √	Team work
	See, read, analyze	Deadlines √	Help others	Committees
MY SCORE !	4	10	2	3

Appendix C - Dave Snowden – Skepticism and Slide Rule

LinkedIn™

Dave Snowden
Founder, Cognitive Edge

Makes sense to me, now I wish I could find the article again!

On 5/10/15, 5:38 AM, Daniel Doiron, MBA CPA PMP CSP ✓ wrote:

Hi Dave,

You once wrote:

Some years ago I had access to a piece of research (but have lost track of it) which showed that the calculator generation had less sense of the essential rightness or wrongness of an answer that those of us who started with slide rules.

My comment:
In a way, could we say that the calculator generation has lost the sense of 'skepticism' that the slide rule generation had?

Reply to Dave