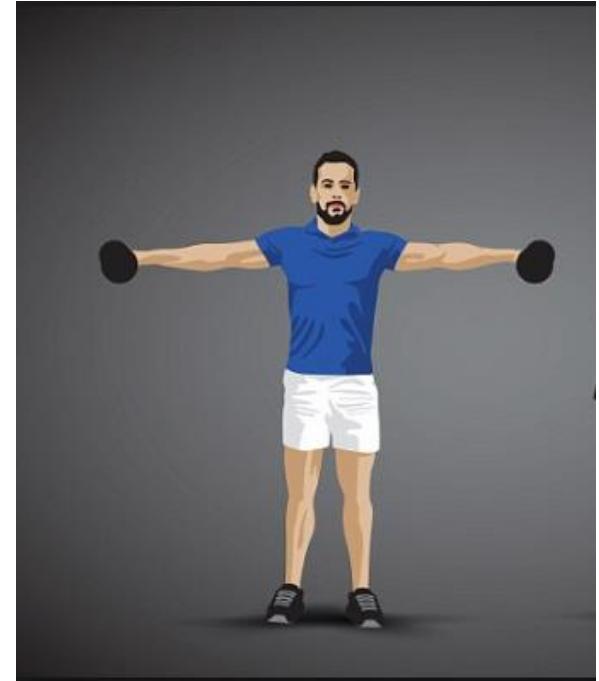


# T-Shaped People: Time to Get in Shape for Your Future



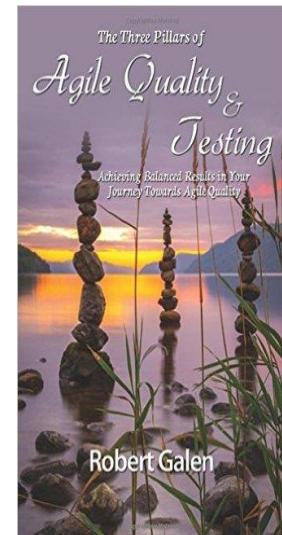
Investment Banks. Investors. Investor Relations.

# About Mary Thorn

Chief Story Teller of the book “The Three Pillars of Agile Testing and Quality” written by Bob Galen, Mary Thorn is Director of Agile Practices at Ipreo in Raleigh, NC.

Mary has a broad background that spans agile, testing and automation, and web-based systems in a wide variety of technologies and agile techniques.

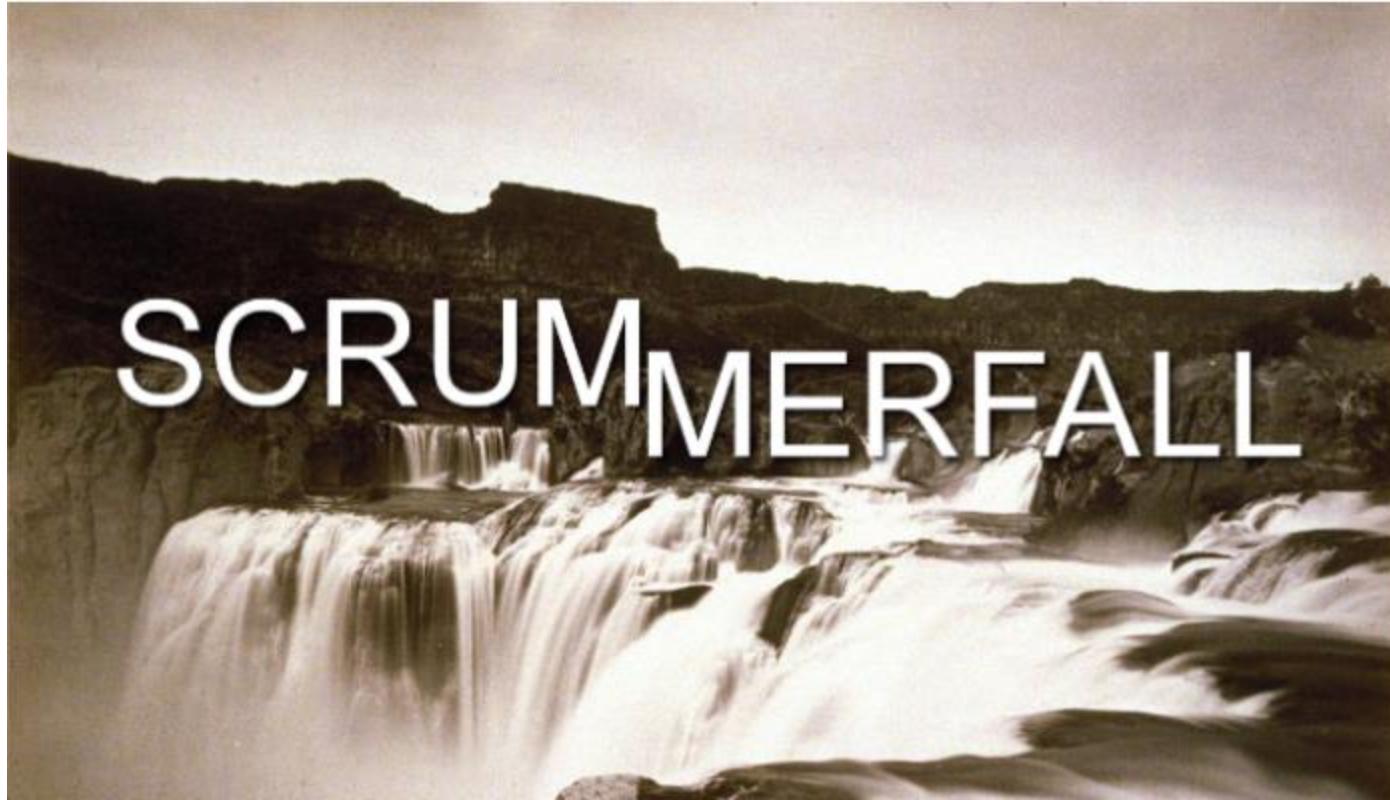
During her more than twenty years of experience in healthcare, HR, financial, and SaaS-based products Mary has held manager and contributor level positions in software development organizations. A strong leader in agile and testing methodologies, she has direct experience leading teams through agile adoption and beyond.



# Outline

- T-Shape Concept
- Role of a team member in agile
- How do you build a T-shaped
- Culture change

# The Problem



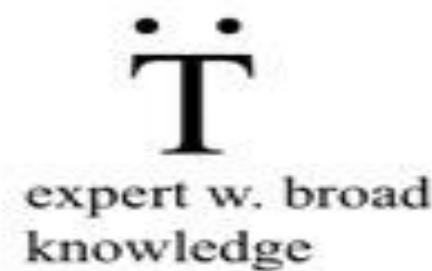
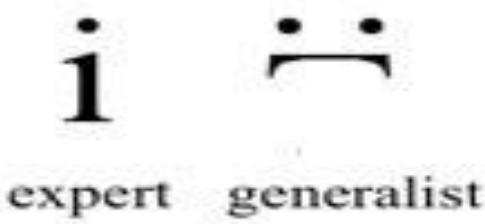
# T-Concept

→ The idea I am presenting here is the T-Shaped people idea. It's not mine, I believe Tim Brown (CEO of IDEO) coined it in the 1990s to describe the new breed of worker.

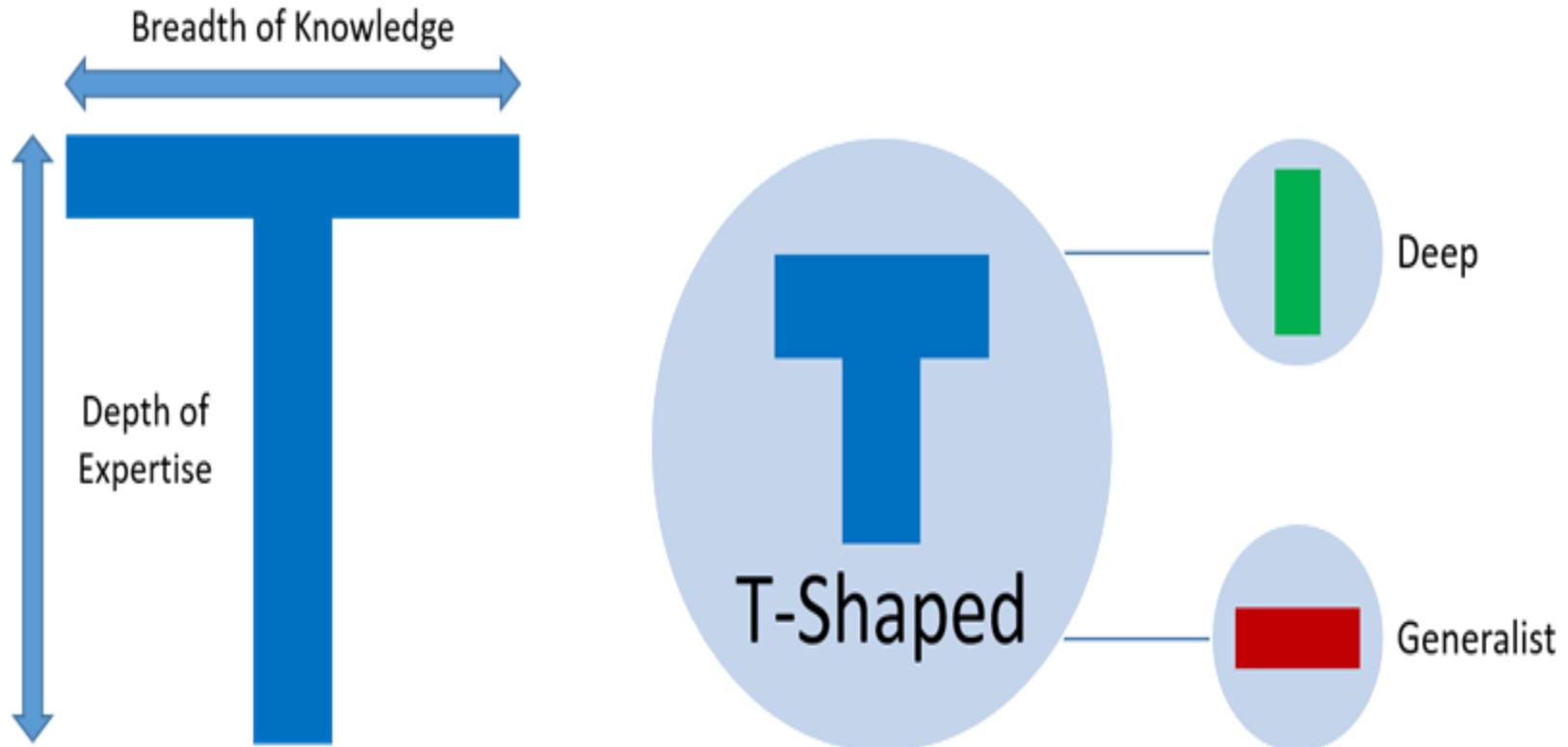


# I - Shaped

- In Waterfall everyone was a specialist!!!
- In some agile companies, everyone is a generalist!!!



# Transition over time



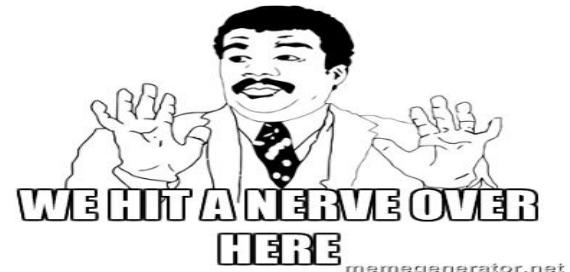
# T-Concept

Analyst	Programmer	Test Engineer	Web Designer	System Engineer
<b>Broad</b> Write Executable Documents	Write Unit Test Code (xUnit)	Write Automated Tests	UX Design	DevOps
Requirements Engineering	Write Production Code	Functional Testing	Java Script, HTML, CSS, LeSS	Python, Perl, Go, shell
Write User Manuals	Design System Architecture, DB	Write Test Plan	Image, Icon, Logo Design	System and OS
...	...	...	Deep	...

# Specialists are Acceptable on Agile Teams

- It is perfectly acceptable to have specialists on an agile team. And I suspect a lot of productivity has been lost by teams pursuing some false holy grail of having each team member able to do everything.
- If my team includes the world's greatest database developer, I want that person doing amazing things with our database. I don't need the world's greatest database developer to learn JavaScript.
- But how do you balance the work or make sure there is enough work for that database developer every sprint...

**WATCH OUT GUYS**



# Specialist Make it Hard to Balance Work

- To better see the impact of specialists, let's look at a few examples. In Figure 1, we see a four-person team where each person is a specialist. Persons 1 and 2 are programmers and can only program. This is indicated by the red squares and the coding prompt icon within them. Persons 3 and 4 are testers who do nothing but test. They are indicated by the green square and the microscope icon within those. You can imagine any skills you'd like, but for these examples I'll use programmers (red) and testers (green).
- NOTE: The four-person team in Figure 1 is capable of completing four red tasks in an iteration and four green tasks in an iteration. They cannot do five red tasks or five green tasks.

## Team Skills (all specialists)

Person 1



Person 2



Person 3



Person 4



Figure 1

# Specialist Make it Hard to Balance Work

- But if their work is distributed across two product backlog items as shown in Figure 2, this team will be able to finish that work in an iteration.

The only allocation of work that can be done by the specialist team of Figure 1

Backlog item A



Backlog item B



Figure 2

# Specialist Make it Hard to Balance Work

- But, any allocation of work that is not evenly split between blue and green work will be impossible for this team to complete. This means the specialist team of Figure 1 could not complete the work in any of the allocations shown in Figure 3.

The many allocations of work that could **NOT** be done by the specialist team of Figure 1.

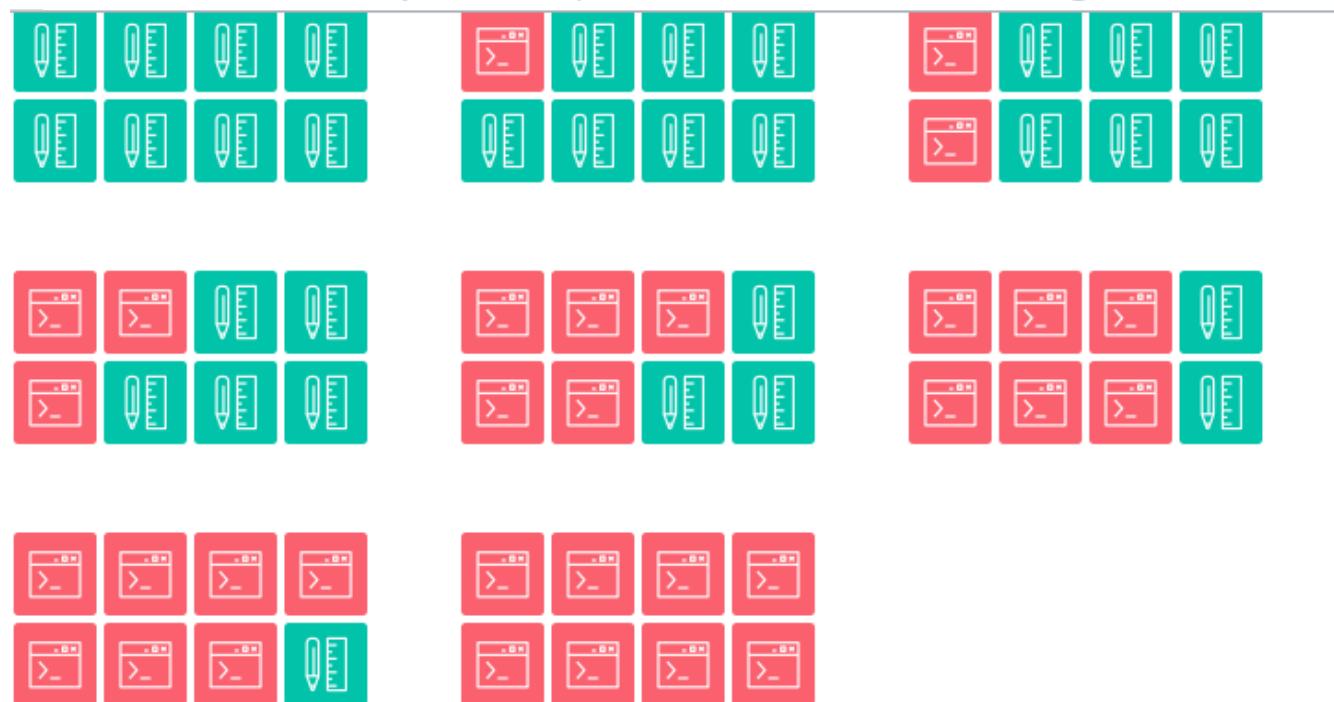


Figure 3

# Impact of Multi-Skilled Team Members

- Next, let's consider how the situation is changed if two of the specialist team members of Figure 1 are now each able to do both red and green work. I refer to such team members as *multi-skilled individuals*. Such team members are sometimes called *generalists*, but I find that misleading. We don't need someone to be able to do *everything*. It is often enough to have a team member or two who has a couple of the skills a team needs rather than *all* of the skills... *T-SHAPED*.

Adding two multi-skilled people to the team

Team Skills (two specialists, two multi-skilled)

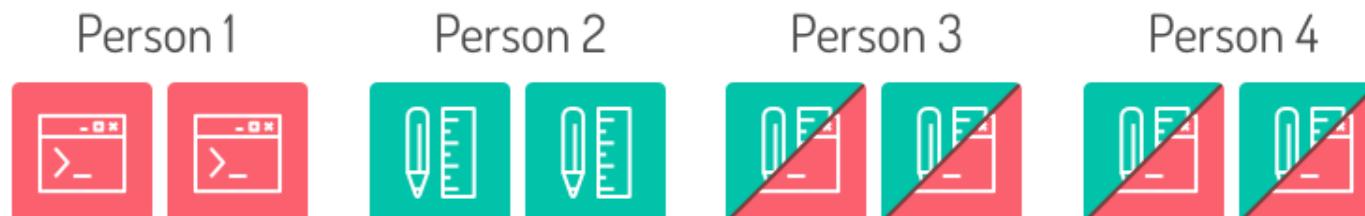


Figure 4

# Impact of Multi-Skilled Team Members

- This team can complete many more allocations of work than could the specialist team of Figure 1. Figure 5 shows all the possible allocations that become possible when two multi-skilled members are added to the team.
- By replacing just a couple of specialists with multi-skilled members, the team is able to complete any allocation of work except work that would require 0 or 1 unit of either skill. In most cases, a team can avoid planning an iteration that is so heavily skewed simply through careful selection of the product backlog items to be worked on. In this example, if the first product backlog item selected was heavily green, the team would not select a second item that was also heavily green.

Combinations of work that could be done  
by the specialist team of Figure 4.

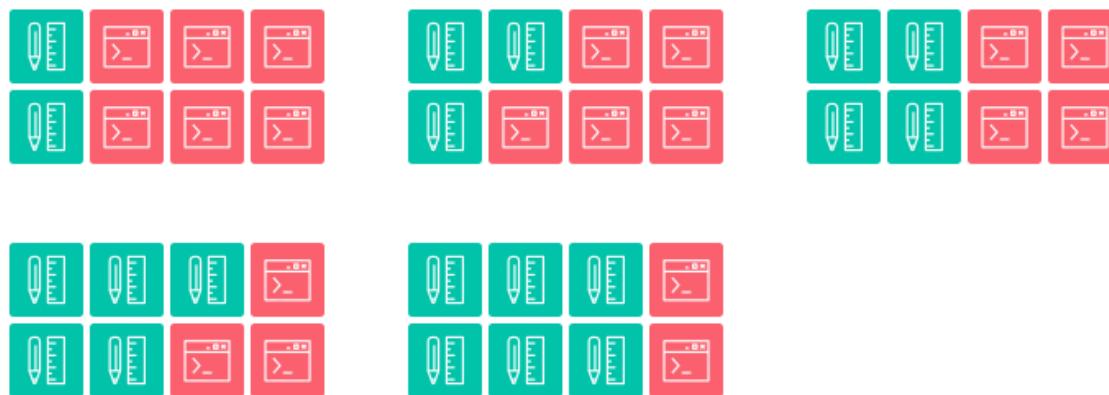
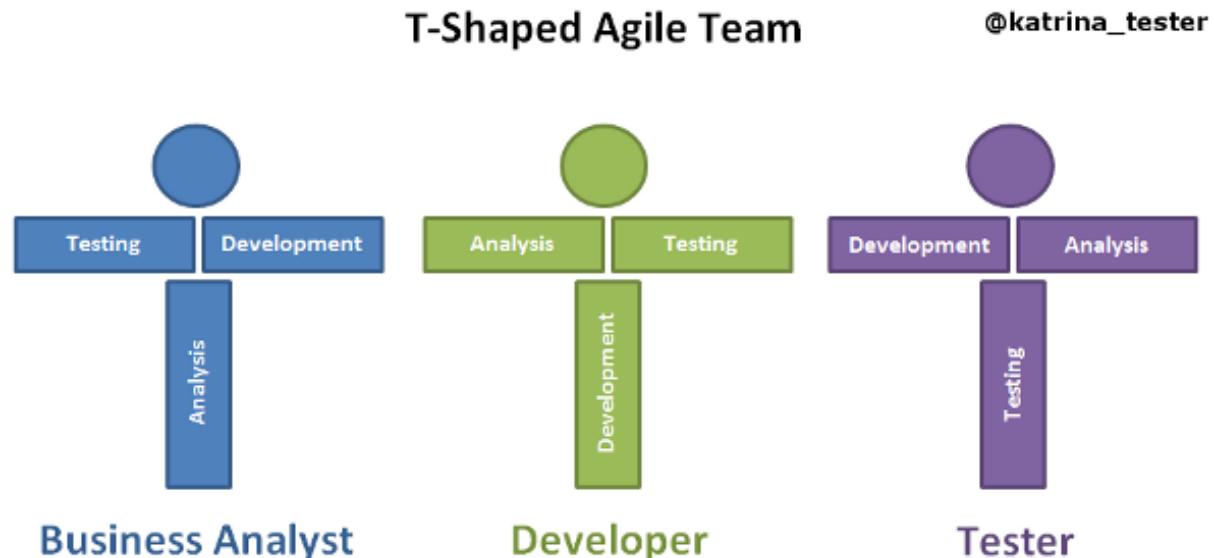


Figure 5

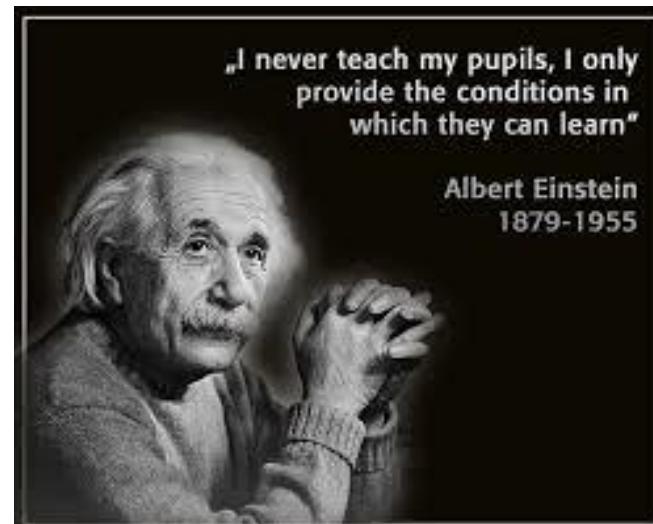
# T-shaped Agile Team

- From this, we can see that specialists can exist on high-performing agile teams. But, it is the multi-skilled team members who allow that to be possible. There is nothing wrong with having a very talented specialist on a team--and there are actually many good reasons to value such experts.
- But a good agile team will also include multi-skilled individuals. These individuals can smooth out the workload when a team needs to do more or less of a particular type of work in an iteration. Such individuals may also benefit a team in bringing more balanced perspectives to design discussions.

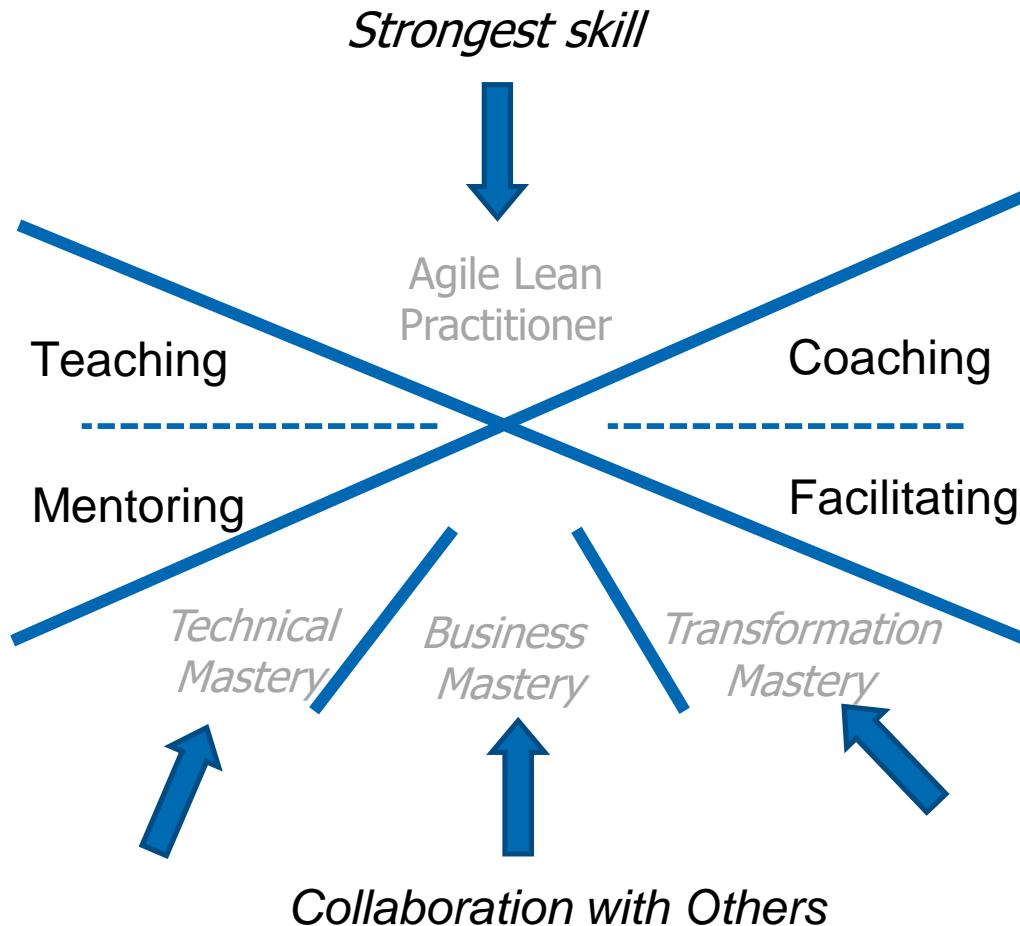


# How do you build a T-Shape Team Member

→ Being a T-Shaped person means having skills that can be useful across other domains. Having T-Shaped roles means encouraging team members to fulfill a number of roles. Learning the skills needed, or already having the skills in place (i.e. already being a T-Shaped person) means people can either slip straight in to the role, or they may have to seek out learning's, coaching and mentoring. And that's where good management, teams and community engagement can come in.



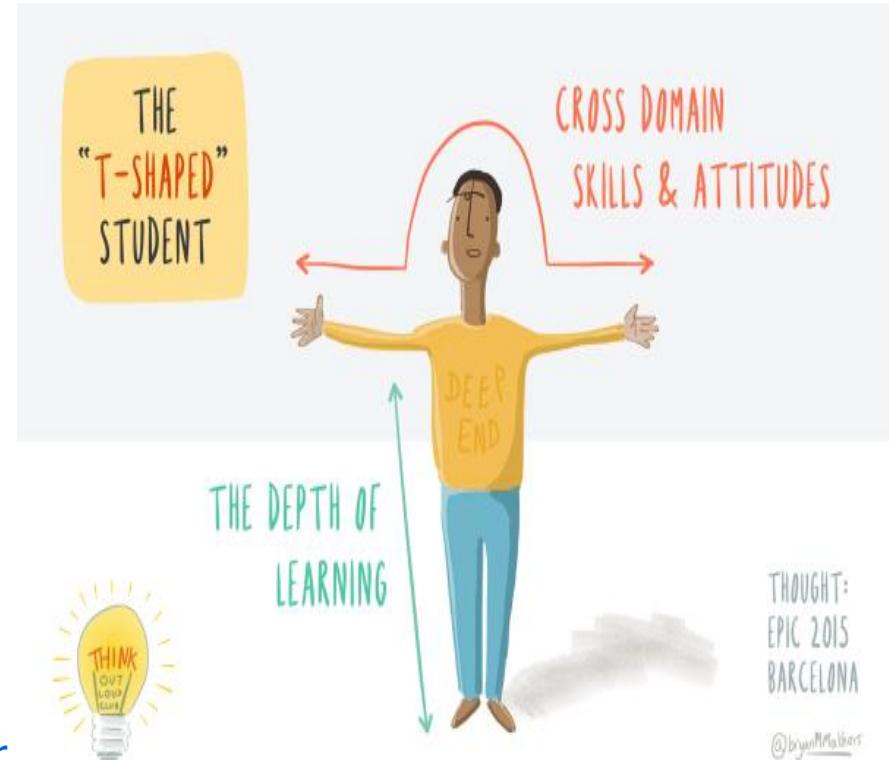
# Lysa Adkins Coaching Framework



# Teaching(52 week boot camp)

## → Potential trainings

- How to write a good user story
- How to be a Scrum Master
- How to write UI automation
- Sitting with Customer Support
- Sitting with Implementation team
- Domain knowledge
- How to write a good test cases
- Release process 101
- Pairing with a developer
- Scrum 101
- Risked Based testing
- Basic Communication skills needed for



THOUGHT:  
EPIC 2015  
BARCELONA

©byunMatters

# Coaching

→ **Coaching** is training or development in which a person called a *coach* supports a learner in achieving a specific personal or professional goal. The learner is sometimes called a *coachee*. Occasionally, *coaching* may mean an informal relationship between two people, of whom one has more experience and expertise than the other and offers advice and guidance as the latter learns; but coaching differs from mentoring in focusing on specific tasks or objectives, as opposed to general goals or overall development



improve  
design  
collaborative  
goals  
VISION  
results  
path  
leadership  
resources  
STRENGTH  
SKILLS  
business  
branding  
mission  
teacher  
executive  
planning  
speaking  
mentor  
LIFE  
SUCCESS

inpirational  
teacher  
executive  
planning  
speaking  
mentor  
LIFE  
SUCCESS

**COACHING**

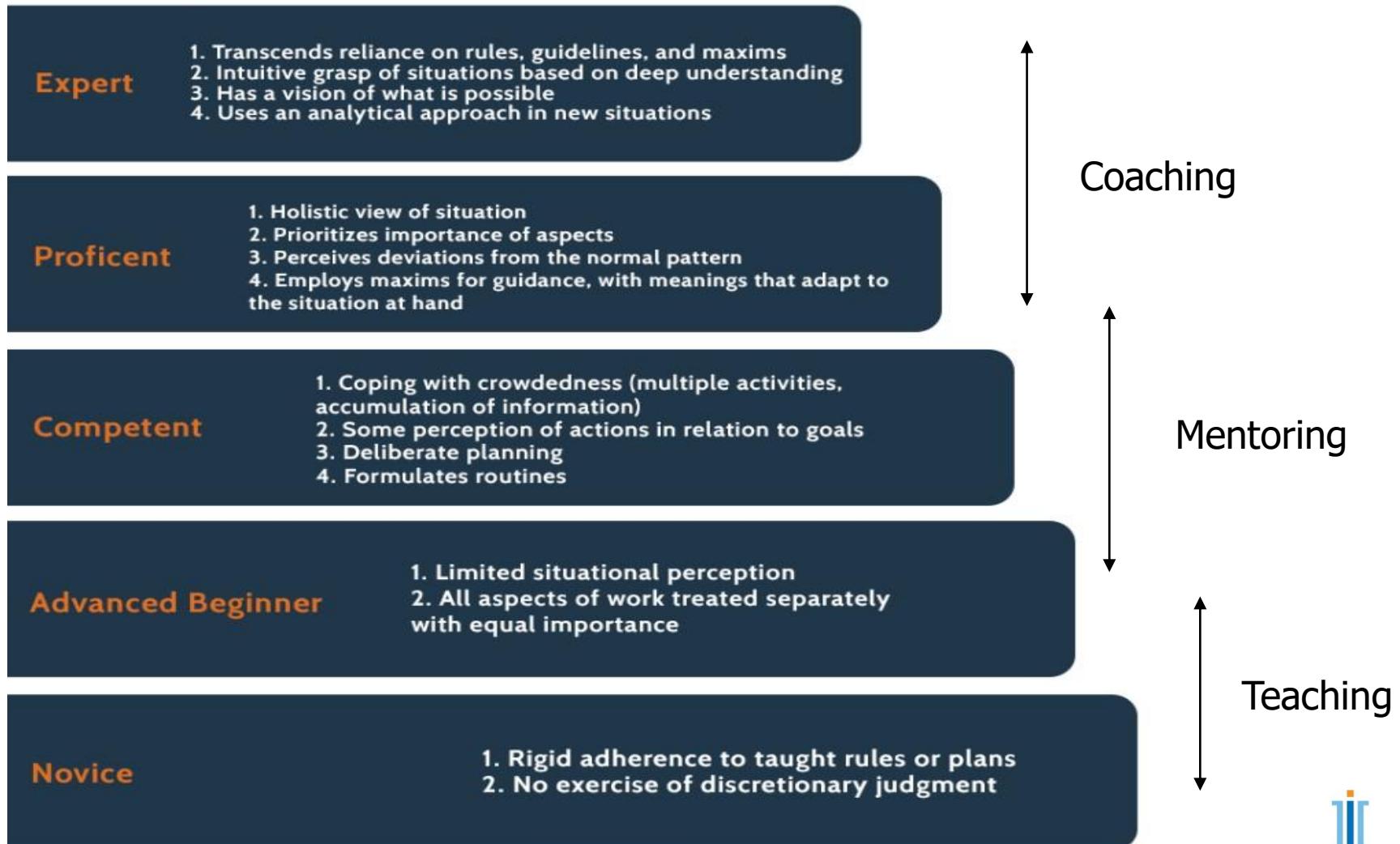
# Mentoring

→ **Mentorship** is a personal developmental relationship in which a more experienced or more knowledgeable person helps to guide a less experienced or less knowledgeable person. The mentor may be older or younger, but have a certain area of expertise. It is a learning and development partnership between someone with vast experience and someone who wants to learn.



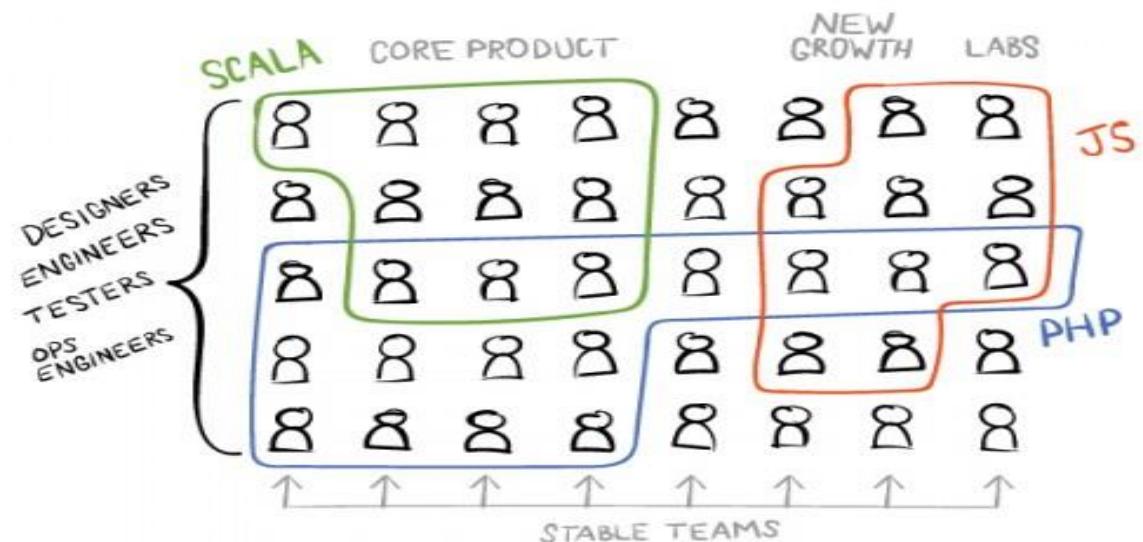
# Dreyfus Model of Skill Acquisition

## Dreyfus Model Of Skill Acquisition

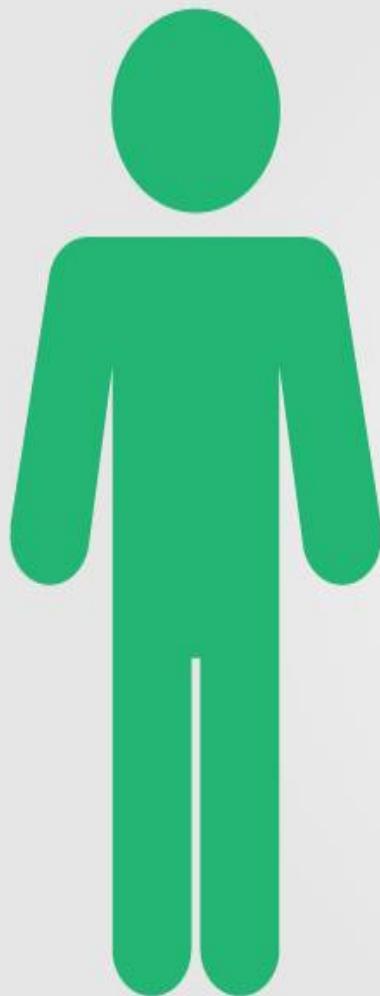


# Guilds/Facilitating

- **Guilds** are a self-organizing group of people with common interests. It is a natural forum for social interactions that build relationships that, in turn, promote cooperation, cohesion, and productivity.
- Guilds provide a horizontal communication layer across our Product Engineering teams. Engineers, testers, and other staff use them to set their own missions, to establish technical roadmaps, to take on joint tasks for their grassroots initiatives, and to promote education through experiential learning.



# Characteristics of a T-shape Team Member



- ✓ They should have good communication skills.
- ✓ They should enjoy team work.
- ✓ They should be passionate and committed.
- ✓ They should develop empathy with other cultures.
- ✓ They should be creative.
- ✓ They should be action and quality oriented.

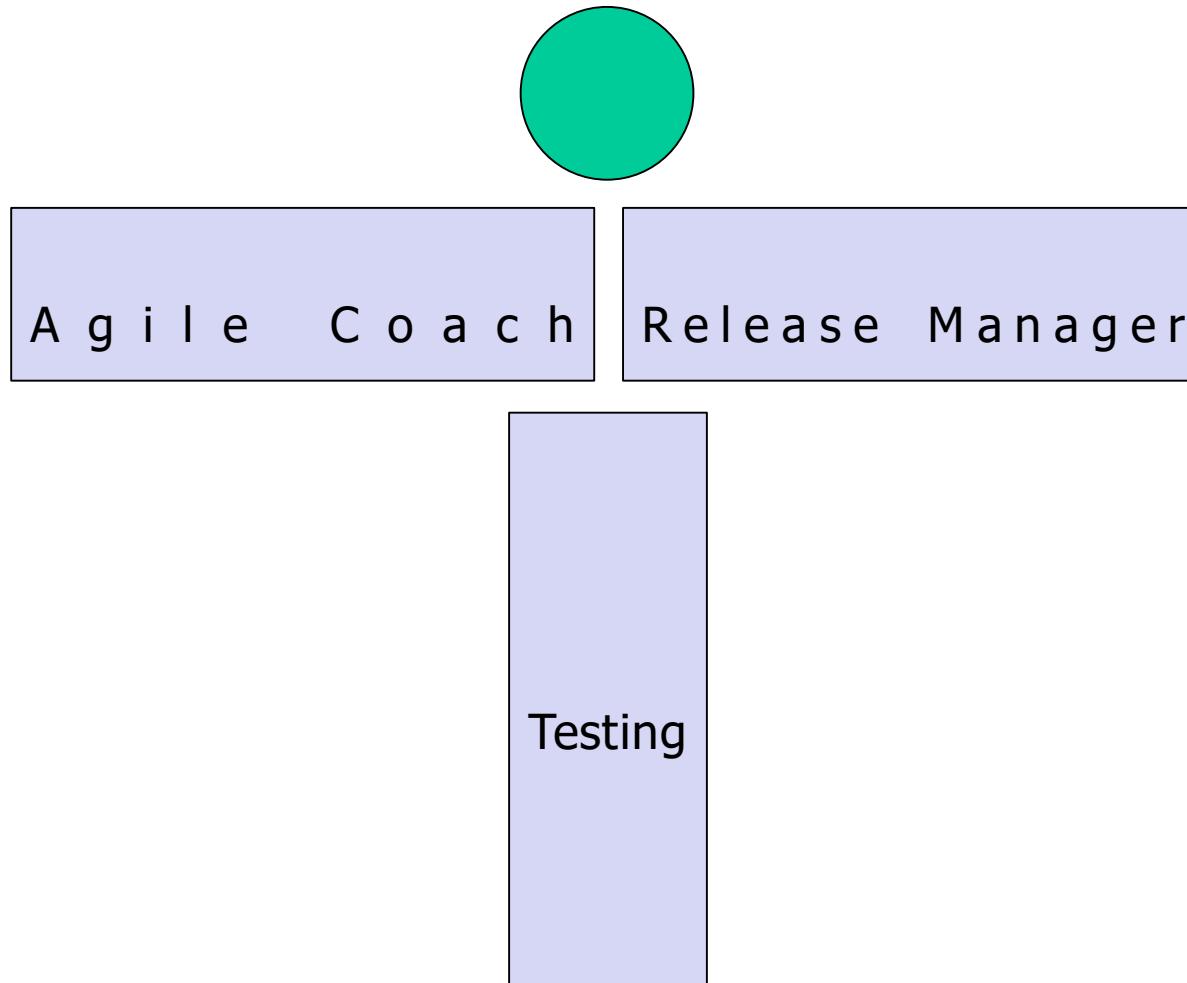
# Culture and implications

## → Development Builds, Testers test, and Product designs

- WRONG
- Partner in the building process
- Not the inspector of the process.



# Example of me(T-Shaped Manager)...now you



# What about Shape

- The trends clearly favor those with “breadth” and “depth”, as well as the tangible (execution) and intangible (exploration), implying having both a big-picture outlook and an attention to detail from being a practitioner. **“E-Shaped People”** have a combination of **“4-E’s”**: **experience and expertise, exploration and execution**. The last two traits – **exploration and execution** – are really necessary in the current and future economy.

<https://www.leadingagile.com/2017/02/e-shaped-staff/>



“I-shaped” (Specialist)	“T-shaped” (Generalized-Specialists)	“E-shaped” (NextGen Specialists)
Deep expertise in one area	Deep expertise in one area	Deep expertise in a few areas
Very few skills or experience in other areas	Broad skills across several areas	<b>Experience</b> across several areas  Proven <b>execution</b> skills  Always <b>exploring</b> and innovating
Can creates bottlenecks	Can help remove bottlenecks	Almost limitless potential
Insensitive to downstream waste and impact	Sensitive to downstream waste and impact	
Inhibits planning flexibility or absorption of variability	Improves planning flexible and absorbs variability	

# Wrap Up



# Wrapping it Up

