

# Agile: Transitioning from Teenager to Young Adult

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# The personal note -

# The Bio note – go to <http://joejr.com>

Home Bio Presentations ▼ Publications ▼ Affiliations ▼ Contact LinkedIn

## Joe Schofield - Biographical Highlights

### Career Highlights

- Consults today with the largest gaming organization in the world, and other clients primarily in the US.
- Maintains five agile certifications. Is an active agile coach and trainer. Contributes to the ScrumBOK™ with SCRUMstudy™.
- Develops and conducts agile transitioning and essential skills for scrum success workshops attended by hundreds.
- Developed and taught over 70 graduate level courses in MIS Decision Making and Software Engineering for the College of Santa Fe.
- Authored over 80 published articles and/or conference presentations in industry journals on agile, IT development, and measurement, as examples.
- Retired in 2011 as a Distinguished Member of the Technical Staff from Sandia National Laboratories after a 31-year career.
- Serves as President Emeritus of the International Function Point Users Group (IFPUG) after a two-year Board-elected term as President; a total of seven years on the Board of Directors. As President, IFPUG membership increased and the annual budget was not exceeded.
- Chaired the Management Reporting Committee for the International Function Point Users Group 2005 - 2007. Principal developer of the Certified Software Measurement Specialist designation.
- Conducted Value Stream Mapping and Kaizen events over a seven-year period as a Lockheed Martin certified Lean Six Sigma Blackbelt.
- Developed a national policy for software management for the DOE in conjunction with four other sites; the result was DOE Order 1330.
- Led the largest sustained software process improvement ever undertaken in the state of New Mexico for over 12 years.
- Participated and/or led in the development of the following IS/IT projects: inventory control, property management, JIT procurement, facilities maintenance and management, engineering drawings, portfolio management, and nuclear weapon tracking.
- Appointed by the CIO of Sandia labs to serve as a consultant to the Governor of the State of New Mexico's CIO Council.
- Served on the Professional Standards Commission for the State of New Mexico with responsibility for: recommendations to the

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### Career Summary

**Selected Key Roles:** Joe Schofield is the President Emeritus of the International Function Point Users Group. He retired from Sandia National Laboratories as a Distinguished Member of the Technical Staff after a 31-year career. During twelve of those years he served as the SEPG Chair for an organization of about 400 personnel which was awarded a SW-CMM® Level 3 in 2005. He continued as the migration lead to CMMI® Level 4 until his departure.

**As an enabler and educator:** Joe is an Authorized Training Partner with VMedu and a Scrum Certified Trainer with SCRUMstudy™. He has facilitated ~200 teams in the areas of software specification, team building, and organizational planning using lean six sigma, business process reengineering, and JAD. Joe has taught over 100 college courses, 75 of those at graduate level. He was a certified instructor for the Introduction to the CMMI for most of the past decade. Joe has over 80 published books, papers, conference presentations and keynotes—including contributions to the books: *The IFPUG Guide to IT and Software Measurement* (2012), *IT Measurement*, *Certified Function Point Specialist Exam Guide*, and *The Economics of Software Quality*. Joe has presented several worldwide webinars for the Software Best Practices Webinar Series sponsored by Computer Aid, Inc.

**Life long learning:** Joe holds five agile-related certifications: SA, SCT™, SMC™, SDC™, and SAMC™. Additionally, he is a Certified Software Quality Analyst, Certified Function Point Specialist, and a Certified Software Measurement Specialist. Joe was a CMMI Institute certified Instructor for the Introduction to the CMMI® and a Lockheed Martin certified Lean Six Sigma Black Belt. He completed his Master's degree in MIS at the University of Arizona in 1980.

**Community & Family:** Joe was a licensed girl's mid-school basketball coach in the state of NM for 21 seasons--the last five undefeated, over a span of 50 games. He served seven years volunteering in his church's children's choir; eventually called to oversee 150 children and 20 staff. Was appointed to serve on the state of New Mexico's Professional Standards Commission. By "others" he is known as a husband, father, and grandfather.

**finally, the event you have been waiting for!**



# Random Drawing for **FREE** Scrum Master Certification

## **Joe will provide**

- a free Scrum Master certification exam at the end of this presentation for an attendee from South America that is NOT a speaker or from the event team
- the exam and materials (as a Scrum Certified Trainer and authorized training partner with YMEdu / SCRUMstudy)
- A Scrum BoK (SBOK™) and exam in Portuguese
- an e-mail with the SBOK™ to the winner

**The winner** is solely responsible for registering for and completing the online proctored exam in the allotted time with YMEdu. This “prize” is non-transferable.

**Now . . . let's talk agile . . .**

# Agile: Transitioning from Teenager to Young Adult

## Abstract:

In 2001 the self-identified *thinkers* of what would become the Agile Alliance gathered in Snowbird, Utah, US. Today the twelve underlying principles of the “Manifesto” for Agile Software Development are widely distributed.

In 2016 at least seven organizations offer more than 40 agile and scrum certifications. Yet consistency in use and comparable measurements remain scarce—some of this is intentional, some is immaturity, and some both. What would you expect from a teenager?

# Remember when you were 15 (years of age)?

Were you making good decisions for life?

Were you wise?

What types of friends did you have?

How hard was it for someone to “tell you something”?

What were your measures of success for yourself? The world around you?

# Agile Certifications Abound – let me count the ways

Agile Certification Institute – 1 (for agile)

International Consortium for Agile (ICAgile) – 1 cert

Strategyex Certificate (Associate or Masters) in Agile – 2

APMG International – 3

SCRUMstudy – 8

several more . . .

**Yet, we still don't seem to know what we're doing (see slide 12)**



# Agile methodologies are increasing, but their usage is not

	Scrum	Scrum XP	Hybrid	Scrumban	Kanban
2016	58	10	8	7	5
2015	56	10	8	6	5
2014	55	11	10	7	5
2013	54	11	9	7	4
2008	49	22			
2006*	40	77	23		

- Over the 10 years this data has been collected, Scrum alone has increased.
- Since 2006 even more agile “methodologies” have emerged like DAD, Scrumban, and Agile, Essential, & Open Unified Process(es).
- If we are practicing the 10<sup>th</sup> principle of agile (simplicity), or the 12<sup>th</sup> (reflect and improve) why do we continue to create more methodologies?

VERSIONONE annual survey responses, past ten years . . . (my analysis, not copied)

\*first survey (2006) and results aren't based on 100 percent distribution

# Here we (don't?) go again with Scaling Agile

	Scrum of Scrums	Home grown	SAFe	Lean
2015	72	23	27	17
2014	69	25	19	18

- 3800 respondents in latest survey.
- Respondents could select more than one response.
- Values under 10 percent are intentionally omitted.
- SAFe is gaining ground but SoS is still used by 2.5:1 over SAFe.
- SAFe too is also very Scrum-like but with four levels (project, program, value stream, portfolio)

10<sup>th</sup> Annual State of Agile Report; 2016, VERSIONONE; pg. 13

# Distinguishing the best practices in agile from the rest

Practice	Rank for most agile	Rank for least agile	Difference in rank	Associated Outcome
Role clarity	1	35	34	Accountability
Top-down innovation	2	37	35	Innovation and learning
Capturing external ideas	3	27	24	Innovation and learning
Process-based capabilities	4	19	15	Capabilities
Operationally disciplined	5	33	28	Culture and climate
Internally competitive	6	29	23	Culture and climate
Meaningful values	7	31	24	Motivation
Knowledge sharing	8	21	13	Innovation and learning
Inspirational leaders	9	32	23	Motivation
People-performance review	10	20	10	Coordination and control

McKinsey & Company, top ten values for successful agile organizations; 161 companies, 2/2016.

- The first three tend more toward *leadership*.
- The 4<sup>th</sup> – 8<sup>th</sup> tend more toward *execution*.
- The last two tend more toward *motivation*.

# Why the focus on Scrum – there are many agile methodologies?

- Scrum is used in over 75 percent of software development projects that describe themselves to be “agile” today. [1] Another recent survey depicts that percent at 82. [2] (These include scrum, scrum with eXtreme Programing (XP), and ScrumBan which intertwines Scrum techniques with Kanban.)
- Confusion still abounds regarding what constitutes agile. [3]
- A recent informal poll of agile workshop attendees revealed that nearly 71 percent thought that “agile = Scrum.” [4] **Remember when I said on slide 8 – “it seems like we don’t know what we’re doing?”**
- In 2013, 42 percent of organizations claimed to be using some flavor of agile with 9 percent using agile on over ½ of their projects. In 2015, 40 percent of organizations claimed to be using some flavor of agile with 9 percent using only agile. [5]

[1] 10<sup>th</sup> Annual State of Agile Report; VERSIONONE; 2016

[2] 2015 State of Scrum Report; AgileAlliance; 2015; pg 2

[3] *Keep the Baby* (Examining Agile); Schofield; MetricViews; Winter, 2014 / 2015

[4] Rally e-mail for Discover Agile webinar; 9/24/2015

[5] Global State of the PMO; Lindsay Scott, 6/18/2015

**What do you notice about the dates of the references on this page?**

# What has stopped agile methodologies from ruling the galaxy?

1. The ability to change organizational culture (55%)
2. General organizational resistance to change (42%)
3. Pre-existing rigid / waterfall framework (40%)
4. Not enough personnel with the necessary agile experience (39%)
5. Management support (38%)

- These inhibitors to agile adoption cited by VERSIONONE in 2016.
- Respondents were able to cite more than one inhibitor accounting for percentages that exceed the sum of 100.
- Only the first five are included here though the report contains several others.
- Perhaps another answer (not posed) is agile practitioners.

# What about the measurement?

1. So, what did you notice about the dates for the references on slide 12?  
(Hint: they are less than 23 months old!)
2. Given the lack of conformity with agile practices, how valid can earlier (older) agile data be? [1], [2]
3. Given allowed variation in agile project measurement, how can measurements be considered reliable? [3]
4. Given this same evolution how can measurements be well established?

[1] *Keep the Baby* (Examining Agile); Joe Schofield; MetricViews; International Function Point Users Group (IFPUG); Winter, 2015

[2] *Agile Camo? 5 Ways to Know If You're Not Really Agile*; John Friscia; Computer Aid's Accelerated IT Success; (Featured Article); IT Metrics & Productivity Institute; October, 2016

[3] *Inflate Gate: Mastering Overestimation for Agile Software Projects*; Joe Schofield; Computer Aid's Accelerated IT Success; (Featured Article); IT Metrics & Productivity Institute; August, 2015

# What we measure for agile projects is not useful for comparisons or benchmarks – see first five!

1. Velocity (57%)
2. Iteration Burndown (51%)
3. Release Burndown (41%)
4. Planned vs. actual stories per iteration (37%)
5. Burnup Chart (34%)
6. Work-in Progress (30%)
- ...
13. Cycle time (20%)

- Every measure to the left is based on project-defined size (see slide title)
- All other measures (7 – 13) have values less than 30 percent with most of these project status related
- Not one with an objective size or productivity value that can be compared across teams

10<sup>th</sup> Annual State of Agile Report; *How Is Success Measured on a Day-by-Day Basis?*, VERSIONONE; 2016

# Function Points to the Rescue

## How it works . . .

- Function point transaction functions (EI, EO, EQ) are by definition, elementary processes
  - Decomposing stories to an elementary process subjects them to a standard and defined sizing process
  - As an additional benefit, stories are now “small enough to be delivered in an iteration” and can be measured as Function Point transaction types
  - Data functions are still logical and perhaps can be more easily depicted by transaction function stories or CRUD, or by story groupings using epics
- I don’t claim this approach is novel; I do claim that it is simple
  - And I claim it’s seldom practiced, easy as it is
  - Using function points to size stories doesn’t need to replace consensus building and understanding estimation processes like *planning poker*.
  - Using function points could remove the uniqueness associated with project-level story points and provide a common approach for productivity, size, cost, and velocity related metrics.
  - Value could also be ascribed to agile *product increments* to quantify work delivered in a sprint or iteration.



# A simple example . . .

***AS A customer I WANT TO register online for the ISMA<sup>13</sup> conference SO THAT I can stay professionally sharp (and meet really awesome people).***

Our “business rules” indicate that a registration requires a name, an e-mail, a valid credit card with a matching name, number, expiration date, and three-digit verification code. All six of these attributes must be present or the registration is rejected.

The business rules confirm that this user story is an elementary process; that is, all elements must be present for the transaction to occur. An invalid credit card does NOT result in a pending registration; no data is retained on a failed attempt. And presently, no other payment options are in the product backlog.

The likely *user* and *credit card* internal logical files would render this an “average” external input at 4 unadjusted function points.

# Agile, mature or not?

Philippe Kruchten concluded:

*The agile movement is in some ways a bit like a **teenager**: very self-conscious, checking constantly its appearance in a mirror, accepting few criticisms, only interested in being with its peers . . . adopting fads and new jargon, at times cocky and arrogant. But **I have no doubts that it will mature further . . .***

**I agree!**

Further reading: <https://philippe.kruchten.com/>

# (my) latest (November 1) Agile Article provides some insights . . .

<http://aits.org/agile/2016/11/persistent-ignored-impediments-agile-success/>



# Agile Maturity Extends Beyond Teams – Check the Culture of the Organization

**From the Persistent Impediments to Agile Success article:**

- You can have the best team, scrum master, and product owner
- You can have the best team tools, practices, & processes
- Success will still be limited if leadership
  - Demands requirement sign-offs before work begins
  - Requires critical path (project) management (CPM)
  - Expects waterfall-based work products as from a phased development approach
  - Defines scope, fund, and schedule project parameters before work is authorized

# Remember when you were 15 (years of age)?

Were you making good decisions for life?

*Is agile maturing much differently than people teenagers?*

Were you wise?

*Are we yet equipped to make “wise choices” regarding agile?*

What types of friends did you have?

How hard was it for someone to “tell you something”?

*Is it easier or harder to make changes once an agile project is underway (it should be easier!).*

What were your measures of success for yourself? The world around you?

*If it's difficult to quantify progress, quantifying and understanding size might be a reasonable place to start!*

# Closing thoughts . . .

Agile requires transformation at individual, team, and organizational levels.

The absence of energetic support at each of these levels will hamper progress and limit success.

Tools and usage will evolve as in the DevOps and Bimodal IT worlds. (Gartner's)

The “cloud” isn't going away any time soon and is likely to play a stronger role in agile tools and solutions.

# And the winner is . . .

Until next time, **obrigado!**

