

Standards and Thinking:

Do standards make rules to be broken?

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Agenda

- ★ Introduction
- ★ ISO29119 and Schools
- ★ Do testers need standards
- ★ What needs to happen with such standards
- ★ Thinking (about standards)
- ★ Standards need to be “tolerable” and ethical

Some Preliminaries

- ★ Under disclosure, I am the IEEE project IEEE for ISO/IEEE29119
 - It is now under development and balloting in IEEE/ISO
 - You can vote/input if you are an IEEE Standards Association member
 - Future world standard for software testing
- ★ Before you get the barbeque grill going to roast me, press on
 - May seem at odds with the ideals of the context driven test community
 - But for many of us who support context driven ideals, must deal with standards like ISO29119 in regulated and international business
 - Standards forms part of the business for many companies , customers, and countries
 - Many of us end up in a mixed relationship with standards

ISO 29119 Software Testing Standard

- ★ Four separate parts

- 1) Introduction: Basic test concepts and definitions

- 2) General processes - Test

 - Planning including risk

 - Design

 - Execution

- 3) Documents (based in and will replace IEEE 829)

- 4) Techniques and types of testing

 - Defined by name and a general process

- ★ Each part and clause can be tailored (not absolute)

 - Tutorial/information included in overall materials

- ★ Standard available to reviewers, balloting, and ultimately public use

A brief diversion – Schools of testing

- ★ Initially proposed by Pettichord (workshop notes) et al
 - names used here with some liberty
- ★ Context driven is one, but there are others, possibly
 - Agile (the rage for the last 10 years)
 - Academic (researchers)
 - Quality assurance (whatever that is)
 - Process based
 - “None” (not an official name, but I see these testers all the time)
- ★ Some “schools” may not recognize themselves (by the names)
 - Schools are common in art, music, sciences, and other profession
 - **But many “artists” cross the school lines all the time**
- ★ ISO29119 aims to be school “independent”, but will have a process centric view but with liberal ability to tailor (expected?)

Discussion: Point 1

- ★ Do we (testers) need standard?
 - Or are we not “mature” enough?

My view – Yes, maybe, but

- ★ Supports common communication within the topic
 - Company to company, country to country, tester to tester, customer to provider
 - Definitions, concepts, terms, ideals, approaches, documents, etc.
 - Some concepts may prove wrong, but provides a common target
- ★ Maturity is an issue but a baseline serve as sounding board and common reference point for “Scientific” method
 - An international benchmark (reference point used in surveying)
 - Thinkers and researchers can prove/disprove benchmark(s)
- ★ Part of being a profession (but only part)
 - Education
 - Reference point
- ★ Has dangers

My View – Potential Dangers

- ★ Not ever book, school, paper, ideal will be represented
- ★ Must have a vetting, upgrade, and maintenance effort
- ★ Will not make everyone happy, so in most cases must be tailored by anyone using them
- ★ Will be subject to “misuse” by various groups
 - Unthinking audits/reviews
 - May stop some people for thinking (but many do that anyway)
- ★ Training and skills may be “assessed” against its questionable info
- ★ Will be imperfect (always)

What is likely to happen

- ★ ISO 29119 will become a standard for ISO and IEEE
- ★ As good or bad as anyone may believe it is, it must
 - Be subjected to rigorous “improvement (takes time)”
 - Be addressed by as many test schools and view points as possible
 - Not represent just one view (school) of software testing (hard to do)
- ★ ISO/IEEE29119 may in part be the basis for some schools of the profession providing definitions and ideals which must be subjected to “scientific process”
 - Subject to criticisms
 - Proving, disproving, and evolve
 - Hopefully become one benchmark

Discussion: Standards, Thinking, and Context-driven

- ★ How should a thinking tester use them when confronted with a context (project, company, customer, factor, etc) where the use might be required?

- ★ How should the context driven community react (in general)?

Thoughts?

My thoughts

- ★ Thinking testers with a context-driven/based view point
 - Use them when a customer/project requires them (regulated environments)
 - Understand where they are good and bad
 - Use as a professions “standard” reference work, but know when and how to break the “rules” via things like tailoring

- ★ How should the context driven community react?
 - Engage to identify and address both the good and bad
 - Do not use in many situations (test projects)
 - Use materials for constructive criticism
 - They will have many concepts which need to be “over turned”
 - Drive the scientific review and healthy debated

Standards – One person's view point

- ★ A test standard is based on limited history (rear looking) and design based on consensus of many voices
 - But still may represent only some of the view points
 - Many not represent all states of the art

- ★ For a standard on software testing, some context-based ideals should be presented
 - Maybe in conflict in some existing context-driven ideals

- ★ Standards need to be tolerable and ethical
 - Require thinking
 - Be open ended and tailored
 - We may not be “mature” yet, but a first version starts the maturing

Even in the presence of standards, a thinking tester is needed

- ★ What would be the key context driven ideals to represent?