

The Future of Test Management

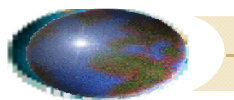
Becoming (or Remaining) a Success in the 2010s



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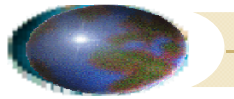
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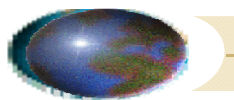
The Future of Test Management

- “It’s tough to make predictions, especially about the future.” – Yogi Berra
- What challenges does the future of test management hold for us?
- What role do test tools and test automation play in these issues?
- What skills do we need as test managers, and what skills do our testers need?
- What test process implications exist?
- Let’s see if we can reach some conclusions...



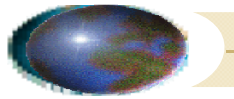
Connecting to Business Value

- ❖ What gets valued gets funded
- ❖ Measure the value of (expensive) environments and tools
- ❖ Understand and demonstrate the return on the skills investment
- ❖ Establish key process indicators for the critical testing processes



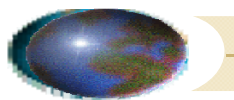
Outsourcing

- ❖ “An irreversible megatrend”
- ❖ Ubiquitous use of production data for testing is a challenge, as are test tool licenses
- ❖ Outsourcing means less individual contributor skills, more test manager/ coordinator skills
- ❖ It remains to be seen if Agile can scale to outsourced testing



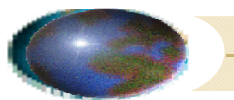
Systems of Systems

- ⊕ When we have 100s of applications accessing dozens of databases, we must break testing silos
- ⊕ Companies that sell interoperable systems must understand their customers' use cases
- ⊕ Sometimes, systems of systems involve applications outside our control (e.g., SaaS, other vendors)
- ⊕ We must move beyond tools that test only at the GUI or API and think about tools that test “both sides of the sandwich”
- ⊕ Testers must master test fundamentals, a diverse mix of technologies, and the business domain
- ⊕ Test managers must transcend the “lifecycle wars”



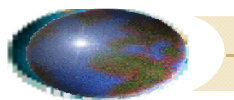
Open Source

- ➊ More questions than answers...
- ➋ Since open source code is not formally tested, what level of quality should we assume?
- ➌ System integration testing of open source OSES, middleware, and applications is critical, but does it happen?
- ➍ Can old rules of thumb for test estimation (e.g., tester-developer ratios) and test planning (e.g., entry criteria) hold when companies choose open-source?
- ➎ How do we coordinate “test releases” with a “vendor” that doesn’t exist?



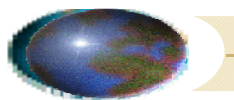
Legacy Systems

- ➊ More and more system integration means more interaction with legacy applications
- ➋ Creative approaches to test automation often work for testing end-to-end on such systems
- ➌ We need testers who understand legacy technologies – can we re-recruit retirees for knowledge transfer?
- ➍ The test process for systems-of-systems of legacy, open-source, and new software is unclear



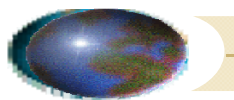
Too Much, Too Little, Too Few

- Too much testing in too little time with too few resources
- Testing is always resource squeezed, and bears a disproportionate burden during downturns
- Irony: budgets for tooling will be tight, and when approved expectations will be overinflated
- Since skills can lead to a 10X improvement in effectiveness, proper skills management is key
- Smart test managers will wring every drop of inefficiency from their test processes during this recession



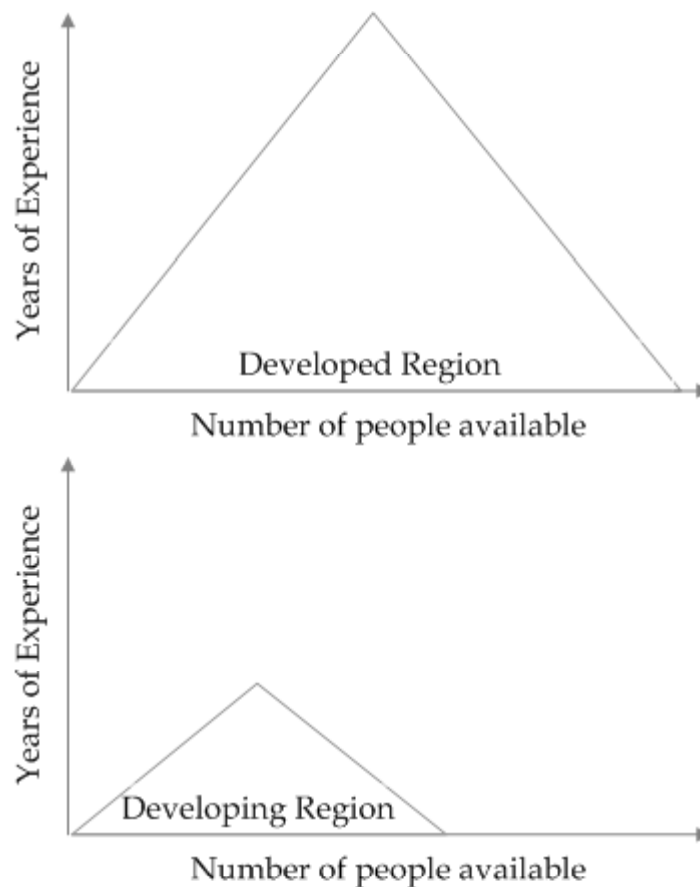
Skills Gluts

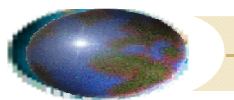
- Thanks to outsourcing/crowd-sourcing, we have hundreds of millions of entry-level testers available
- The age of the Amateur Tester (always lurking) has arrived: Is that a good thing?
- Test managers must remain vigilant in terms of the skills of their testers
 - Bug reports are not grains of rice
 - Testing is not like washing cars
- Test managers who must use amateur testers must put structure in place through good test process



Skills Shortages

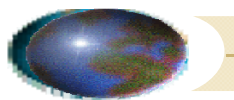
- Outsourced/crowd-sourced testing expands the base of the skills triangle, not its height
- The **true** test professional – experienced, seasoned, trained, and certified – will remain like palladium: rare and precious
- The **true** test automation professional – at least five years and two failed automation efforts – will remain like a Van Gogh painting: rare, precious, and irreplaceable
- The wise test manager tends the skills of her team like a vineyard
- The wise tester grows his skills relentless: skills guard against commoditization
- Team development is a critical test process





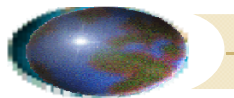
Choosing the Right Certifications

- ❖ Security, tools, ISTQB, technology, etc.
- ❖ Remember that no certification guarantees sufficient skills and experience, especially with tools
- ❖ Consider certification as part of your larger skills-management challenge
- ❖ Beware of prescriptive certifications, especially those that espouse a particular methodology (e.g., Scrum certifications) or do not involve a reputable, secure exam



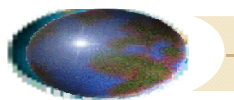
Iterative and Agile Methodologies

- ❖ Fast change, deficient test oracles, overheated expectations
- ❖ Automate tests at unit and system level to manage regression risk
- ❖ Grow automation skills in your testers
- ❖ Learn to use risk-based testing and reactive testing effectively
- ❖ Have testers support automation in unit testing and continuous integration
- ❖ Pervade testing and quality throughout the lifecycle



Conclusions

- *“Plus ca change, plus c’est la même chose...”*
- Testing remains among the most challenging of high-tech jobs, under-recognized as such
- Test tools must evolve beyond monkeys; they must help us do better work, not just faster work
- The wage race to the bottom means a Darwinian race to evolve skills faster: lose the race, be eaten
- Schumpeter’s “creative destruction” rules in the area of test process
- The 2010s decade: not an easy one for the wise test professional; perhaps a short decade for the incautious



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