Top Challenges in Testing Today  
(and what we can do about them)

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How we react to challenges
My top challenges in testing today
How to make a difference
What is a challenge?

- climbing Mount Everest?
- running a marathon?
- cooking a dinner party for 20 people?
- flying?
- getting out of bed in the morning?

Definition: something that by its nature or character serves as a call to battle, a contest that requires special effort and skill. Demand to explain, justify or call into question.

Good versus Bad Challenges

**bad challenges**
- when they are harmful
- when they have undesirable consequences

**good challenges**
- when they improve yourself
- when they open your mind to other things
How we react...

How we react to challenges

My top challenges in testing today

How to make a difference
Challenge #1: ban the use of “best practice”

Best: the highest quality, excellence or standing. Absolute qualifier, context independent
Practice: habitual or customary performance

THEREFORE:
Best Practice: the highest quality of habitual performance with no context!

so why do we actively promote “best practice in any lifecycle”?

Why “best practice” can be harmful

Dreyfus Model (for skills acquisition):

- **NOVICE** (needs practices)
- **ADVANCED BEGINNER** (uses practices)
- **COMPETENT** (defined practices)
- **PROFICIENT** (falls back on practices)
- **EXPERT** (subverts practices)

contextual awareness

behaviour from instinct

most people stop here
So how does this help?

where are “best practices” useful?
• protecting people from themselves
• helping advanced beginners
• providing work for competent people 😊

however if “best practices” are used it will…
• stifle the creative environment
• frustrate your best people

suggestion: challenge any references to “Best Practices” replace with good practices and know when and when not to use them

inspired by Dan North, Øredev conference

Challenge #2: Estimate Quality…and monitor

one of the problems we have with test estimation is that it is wrongly performed….

fact: estimation is based on 2 aspects effort + people = schedule

half truth for testing: effort + people + QUALITY = schedule

we must also estimate the number % severity of the bugs we are going to find to make our estimates meaningful (a direct correlation)

…once we have estimated quality – we must monitor quality!
So how do we estimate and monitor quality?

using estimation iterations utilities...

- bugs available to find in next iteration
  = bugs – bugs fixed + new bugs + nested bugs
  = (bugs * fix rate) + (bugs fixed * insert rate) + (bugs * nesting rate)

<table>
<thead>
<tr>
<th>bugs</th>
<th>fix rate</th>
<th>insert rate</th>
<th>nested rate</th>
<th>bugs left</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>80%</td>
<td>20%</td>
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<td>80%</td>
<td>20%</td>
<td>10%</td>
<td>2</td>
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<tr>
<td>2</td>
<td>80%</td>
<td>20%</td>
<td>0%</td>
<td>0</td>
</tr>
</tbody>
</table>

...and S-curve graphs

**suggestion:** for every test estimate you give – provide an estimate for the quality you are to expect and then monitor this quality

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Challenge #3: show others that not anyone can test (and show the true value of testing)

Managers can get the wrong impression of testing, when...

- we give the wrong information to them
- they mis-interpret what we produce
- they don’t see the value of testing
  - testing is expensive?
How to challenge this perception

- for yourself and your team
  - establish a career path and learning program for testers
  - self-education in testing is paramount
- ask management what information they want from testing
  - how will it make a difference to the go/no go decision
  - use predictive measures to give indication of quality
- show the value of testing
  - show them the true skills needed in testing
  - how much money we have saved the company

Challenge # 4: Using the resource we have

THE BAD NEWS:
the economic climate is affecting us all…it is truly global
- financial sector, construction industry, car manufacturers, energy, cell phones, consultancy etc etc.
- all parts of the world are affected
- budgets are at best “tight”
- we are told to do more with less.

so what can be done?…
The good news

- for yourself and your team
  - provide some “slack”...higher morale and productivity
  - give you time to look at how things work now
    - improvements to be made
- negotiate and be honest with vendors
  - be open about what budgets you have for tools, training and consultancy
- look at ways of cost saving
  - internal training/workshops
  - cheap and free tools
  - networking events – keep in touch and help one another

suggestion: ascertain what resource you do have...people, hardware, tools, budgets etc and prioritize what is most important. Negotiate with vendors for the best deal...it is a “buyers market”

Challenge # 5: Challenge complexity at every opportunity

- simplicity seen as weak and uninteresting
  - who wants a “basic mobile phone?”
- complex is seen as good
  - I don’t understand this, so it must be really good (everyone else understands)
  - $1m pen

suggestion: challenge requirements and design documents at every opportunity to see whether complexity is needed
Features and functions used

[Table and diagram showing features and functions used with percentages: 64%, 20%, 15%]

Jim Johnson XP2002 Standish Study Group

Challenge # 6: Test Managers/Leads should test

...and testers should improve their technical skills

some excuses that have been given to me...

“I can’t perform testing as I don’t know the application”

“I don’t have time to perform testing, I have meetings to attend, reports to write, schedules to monitor…”

“I have 32 testers reporting to me, you are not seriously suggesting that I test as well?”

“I have done testing in the past, I have now moved on. I have my team who do it much better”
Why is this non-negotiable?

why do I believe Test Managers/Leads should test?
- you can identify & empathize with the team’s frustrations
- you can lead by example
  - assist when more testing is required
  - avoid the “wool” being pulled
- you will improve your estimation skills
- you will gain credibility and trust within the organization

**suggestion:** adopt Friday afternoon Exploratory Testing/Bug hunting afternoons which includes the Test Lead/Manager

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Content

How we react to challenges

My top challenges in testing today

How to make a difference
What to do now…

- produce an action plan
  - which of these challenges are affecting you?
  - what other challenges are you facing?
  - produce a series of steps to take
- discuss these with your manager/team
  - this can be the hardest part!
- recognise that challenges will stir emotions
  - but don’t give up!
  - choose your battles

Thank you!

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