● boku

From Test Cases to Context Driven Testing:
A Start-up Story

Gary Miller

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Referenced resources listed at http://wp.me/p4H3NU-1j

How Did I Get Here?
Some background on my journey as a tester

- 2008 – My first testing book
  - Lessons Learned in Software Testing (2001) Kaner, Bach, and Pettichord
  - First introduction to context driven testing

- 2009 – Joined Twitter and read blogs
  - Tweeted about general topics, but not testing
  - Discovered testers to follow through community sites like softwaretestingclub.com

How Did I Get Here?

- 2010 – Maintenance mode
  - Employer started downsizing
  - Product put into maintenance mode
  - I still had a job, but wasn't testing

- 2011 – Seeking a new job
  - Boku welcomed me as their new Senior QA Engineer
  - I was a team of one
  - How can I move towards context driven testing at Boku?
  - You're about to find out…

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The Start-up Days

- The birth of Boku – a mobile payments startup
- No testers (yet)
- An Engineer took ownership of testing
  - Developed test harnesses (a.k.a. simulators)
  - Wrote stability and basic capability tests using JMeter
- Some bugs not found prior to release
  - Time to bring in a dedicated tester
- QA Manager comes on board
  - How are Boku's products tested?
  - Establish some form of documentation
  - Converted test plans into test cases

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The Start-up Days

- Development cycles were 4 weeks long
  - 2 weeks of feature development
  - 1 week of feature testing (code thrown over wall)
  - 1 week of regression testing
- More feature testing to do than can be done by a single tester
  - Recruit Engineers to assist with feature testing
  - Tester handles regression testing
- Released software to production every 4 weeks

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My First Year

- Followed the testing program as it had been done before me
- Maintained the test cases but could not increase coverage without scaling up
- Business was growing and more features and products in the works
- Brought in 2 additional testers
- Moved into a management role and passed the torch to the new testers
- Business needs caused impromptu releases
  - Context shifting for developers and testers

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Year Two

- Focused on training and skill development of the new testers
- Introduced concepts I learned through the test community
  - Bach's Heuristic Test Strategy Model (SFDIPOT, CRUSSPIC STMPL)
  - FEW HICCUPS
  - Hendrickson's Test Heuristics Cheat Sheet
- Needed less assistance with feature testing from Engineers
- Post code-cutoff changes were increasing, delaying regression testing
  - A larger test team enabled us to relinquish 1 week of our "QA cycle"
- CAST 2013 via Twitter

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Year Three

- Added 2 official "mid-iteration" releases
  - 1 major release and 2 minor releases
- Remained an active blog, article, and tweet reader
- Discovered Karen Johnson's RCRCRC (regression)
  - Recent
  - Core
  - Risks
  - Chronic
  - Repaired
  - Configuration

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The Journey Accelerates

- Shared RCRCRC with my boss
  - It might help find important bugs faster
- Was the current regression suite finding important bugs?
  - Bugs in production
- Time to experiment
  - A/B test RCRCRC against current regression suite
  - Reporting results without using metrics
  - Didn't publicize just yet
- My findings
- Making it permanent
  - Go rogue or get broad buy-in?

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A New Regression Strategy

- Test cases out, RCRCRC in
- Addressing the 6 dimensions of RCRCRC
  - examine the sprint backlog
  - identify the critical components of our products
  - interview developers and product owners
  - examine bug reports
- Metrics out, visual reporting in
  - Bach's Low-Tech Testing Dashboard
- Broadcasting it

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First Attempt

Master Testing Dashboard			
Area	**Effort**	**Cvg.**	**Q.Ass m.**
application-messaging	None		
bank-account-service	None		
batch-messaging	None		
billing-gateway-façade	High	2+	😁
boku-code-provider-connector	None		
callback	Low	1	😄
callback monitoring	None		
carrier-integration	None		
carrier-messaging	Low	1	😁
cdr-populator	None		
code-storage-manager	None		
connector-queue-monitor-service	None		
cscp	None		
DBConnectionMonitor	None		
forex	None		

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What Next?

- Embrace a heuristic-based testing strategy more fully
  - How would I achieve that?
- Broader socialization and buy-in would be important
  - Who would I talk to?
    - Senior VP of Product, Director of Product
    - Senior VP of Operations
    - Chief Business Officer
  - How would I approach the conversation?

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Preparing to Socialize

- Klain's Talking with C-Level Management About Testing
  - Don't talk about testing
    - (But I did!)
  - Talk about how testing aligns with the business' strategy
  - What you want them to know / do
- Priming the executives for the chat
  - In-person invites
  - Email invites

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From Start-up to Scale-up

- How can testing support:
  - Onboarding future big merchants
  - More frequent releases
  - Reduction in last minute changes to the release
  - Better collaboration with testers, developers, and product owners
  - Mitigation of risks (revenue affecting especially)
  - Scaling up testing without hiring more testers
- Mention
  - The new regression testing strategy

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Show Time

- 3 lunch meetings over 3 weeks
- Everyone understood the basis for proposing change
  - The quality challenges
  - The problems we wanted to solve
- I was given the green light
  - YES!
  - Yikes!
- Continue the socialization with the rest of the company
- Continue growing, learning, and practicing to drive up my confidence level

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First Test Conference
CAST 2014

- Reinforced concepts previously learned
  - Fiona Charles – **Art and Science of Heuristics**
- Echoing back that I was on the right path
  - James Bach – **Test Cases are Not Testing: Towards a Performance Culture**
  - Alessandra Moreira – **My Boss Would Never Go For That: The Art of Persuasion**
- Better understand my approaches to leading change
  - Maria Kedemo/Erik Davis – **Balancing the Leadership Seesaw**
- New friends and peers
- Came back to work on a high

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Rapid Testing Intensive Training

Offered by James Bach

Note: Now called Rapid Software Testing Applied (RSTA)

- More reinforcement and new concepts to bring into the workplace
  - Oracles
  - Heuristic Test Strategy Model
  - Simple testing notes
  - Product Coverage Outlines
  - Risk analysis
- Elevated tester confidence and skill
  - Team worked together in new ways
  - Team walked away excited to implement these concepts

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Considering Other Tester's Experiences

Katrina Clokie - Creating a common test approach across multiple teams

Their Challenges	**My Challenges**
• 5 year old test strategy	• Test strategy not defined
• Strategy not reflective of actual testing performed	• Testing focused on functionality / lacking diversity
• Testers diverged from strategy in different ways	• Testing activities not very visible outside of test team

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Considering Other Tester's Experiences

Katrina Clokie – A test strategy retrospective

Their Reasons

- Testing might be performed by anyone in a cross-functional team
- Quality of testing varies based on who does it
- Test decisions sometimes made by individuals
- Test practices might be adopted without understanding why

My Reasons

- Testing is performed by testers, programmers, and product owners
- Quality of testing varies
- Testing decisions made by individuals, mostly testers
- Desire to diversify testing

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Sean Cresswell applying Katrina's experiences

A light bulb moment
for me.
Time to try for myself

Community Experiences Being Applied

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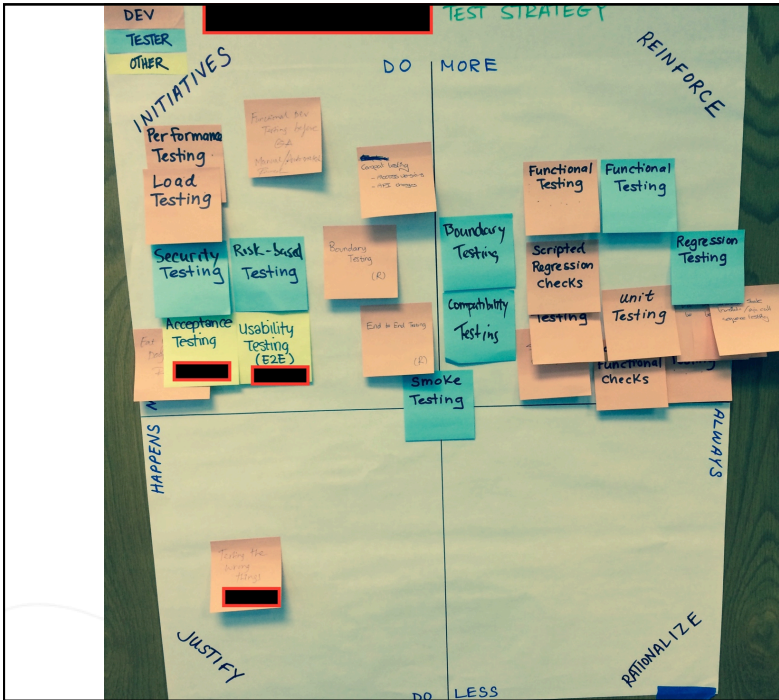
Initiatives	Reinforce
Justify	Rationalize

Do More		
Happens Never		Happens Always
Do Less		

Tester	Dev	Other (PM)

The Three Amigos

- A concept I found in the Agile community
- 3 Amigos: Tester, Developer, Product Owner (or BA)
- Provided a forum for questions about testing to be asked
  - Provided a safe/positive space outside of design and technical meetings
- Increased collaboration on testing with development and product team
  - Product had a stronger voice in what was tested
  - Programmer testing got more visibility
  - Better understanding of how tester and programmer testing overlapped
  - Is now a model for how we want our project teams to operate
- Elevated the visibility of testing
  - People started to know what we do and how we do it

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I am Here

- A 3 year journey helped:
  - Move from releasing software every 4 weeks to every week
    - Development and testing overlap
  - Elevate the role and visibility of testing in a product development group
    - Highlight that testing is performed by many people, even outside of the test team
  - Skyrocket collaboration within teams
  - Address the larger concerns about quality and risks
  - Improve the professional skills and opened the minds of my testers
- My journey isn't over yet – I'm still on it and you are a part of it right now

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Closing Thoughts

- Be the change that you want to see
  - Don't wait for an invitation
  - *"Dress for the job you want, not for the job you have"* – Gary's Mom
- Implement change incrementally
  - A grand plan isn't needed in advance, just intention, desire, and initiative
  - A single change is a good way to test the waters
- Build credit in the bank
  - Rapport with decision makers and important people will help advance your cause
  - Establish relationships before you need something from them

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Closing Thoughts

- Let your passion shine
  - If you are excited and passionate about testing, others might find it easier to support your endeavors in making testing better
  - Find opportunities to shine (brown bags/demos/impromptu chats)
- Keep tabs on the testing community
  - You're likely entering waters previously paddled by others
  - Use community advice to help you see possible solutions and actions
  - Peers and community can uplift your confidence – engage with them
- Use change to encourage company-sponsored training
  - Managers may be more likely to approve training or conference attendance if you are undergoing improvements/change

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References

- Lessons Learned in Software Testing: A Context-Driven Approach (2001) Kaner, Bach, Pettichord
- Heuristic Test Strategy Model (1996-2015) Bach
- Testing Without a Map (FEWHICCUPS) (2005) Bolton
- Test Heuristics Cheat Sheet (2006) Test Obsessed
- Exploratory Testing Explained (2003) Bach
- Explore It! (2013) Hendrickson
- A heuristic for regression testing (2009) Johnson

- A Low-Tech Testing Dashboard (1999) Bach
- Talking with C-Level Management About Testing (2014) Klain
- Test Cases are Not Testing: Towards a Performance Culture (2014) Bach
- Rapid Testing Intensive
- Creating a common test approach across multiple teams (2014) Clokie
- Test Strategy Retrospective (2014) Clokie
- Tweet (2014) Cressell
- Introducing the Three Amigos (2013) Scrum Alliance

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Journey with me – I'm Hiring!

http://www.boku.com/jobs

My Contact Information:

@1030omlette

softwaretestkitchen@gmail.com

http://softwaretestkitchen.com

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