Mechanisms for Creating and Validating Big Ideas with your Users

Design Thinking & Data Management

December 4, 2019

tapQA™

About tap | QA

- One of the country's largest "Pure Play" Software Testing Consulting services firms
  - *QA Consulting is all we do!*

- We provide the talent and services that help organizations
- improve the impact of QA

- Outstanding partner for **onsite** OR onshore testing services

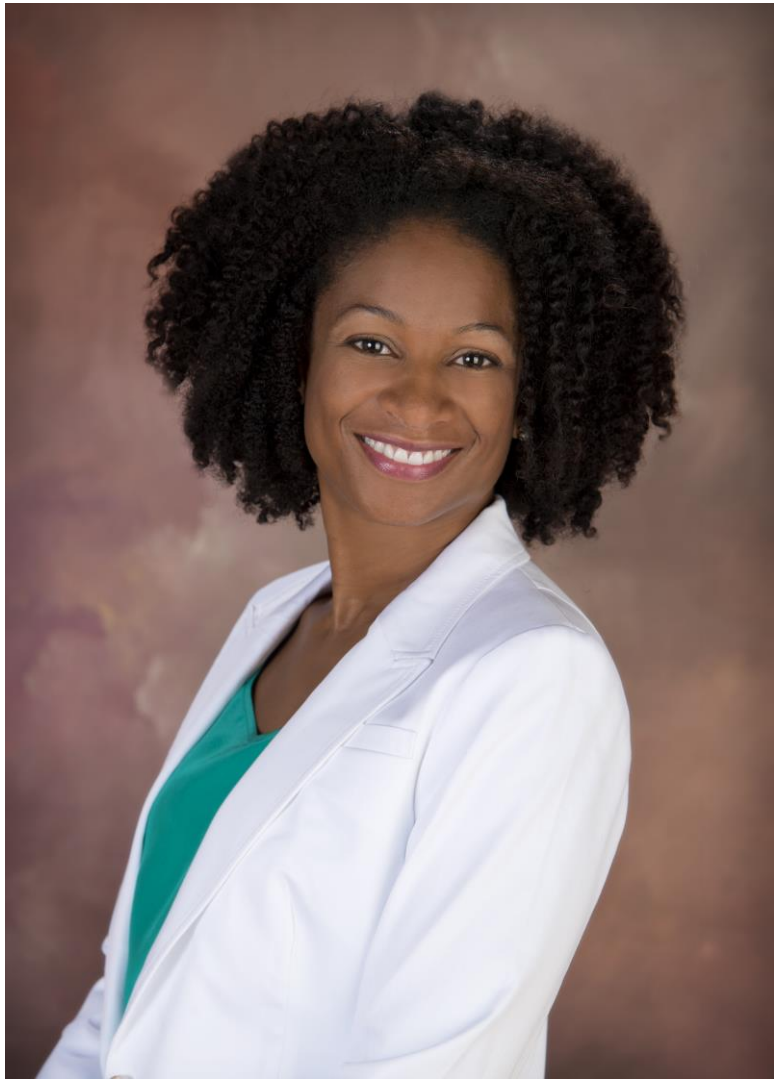
- We've helped dozens of organizations improve their QA capability
- out of our Quality Headquarters ("QHQ")

Michael Faulise

Michael Faulise is the founder and Managing Partner at tap|QA, LLC, a national company that specializes in quality solutions for businesses. His current focus as an Executive Leader for tap|QA includes Sales, Marketing, Business Development, Innovation & Solutions. Michael has 25+ years in Consulting Services with his focus on Client Engagements including working with the NASDAQ, Amazon, Boeing, Microsoft, HBO, and several other Fortune 100 clients.

Michael has specialized in partnering with clients in the areas of software development, quality assurance and testing, technology, process training, and process improvement.

Michael has spoken at several national conferences including SQE Agile Development, WEDI, HIMS, IIST and the StarWest/East conferences. Michael continues his passion for driving innovative ideas as software development evolves and adapting to those changes.



Kenya Oduor, PhD

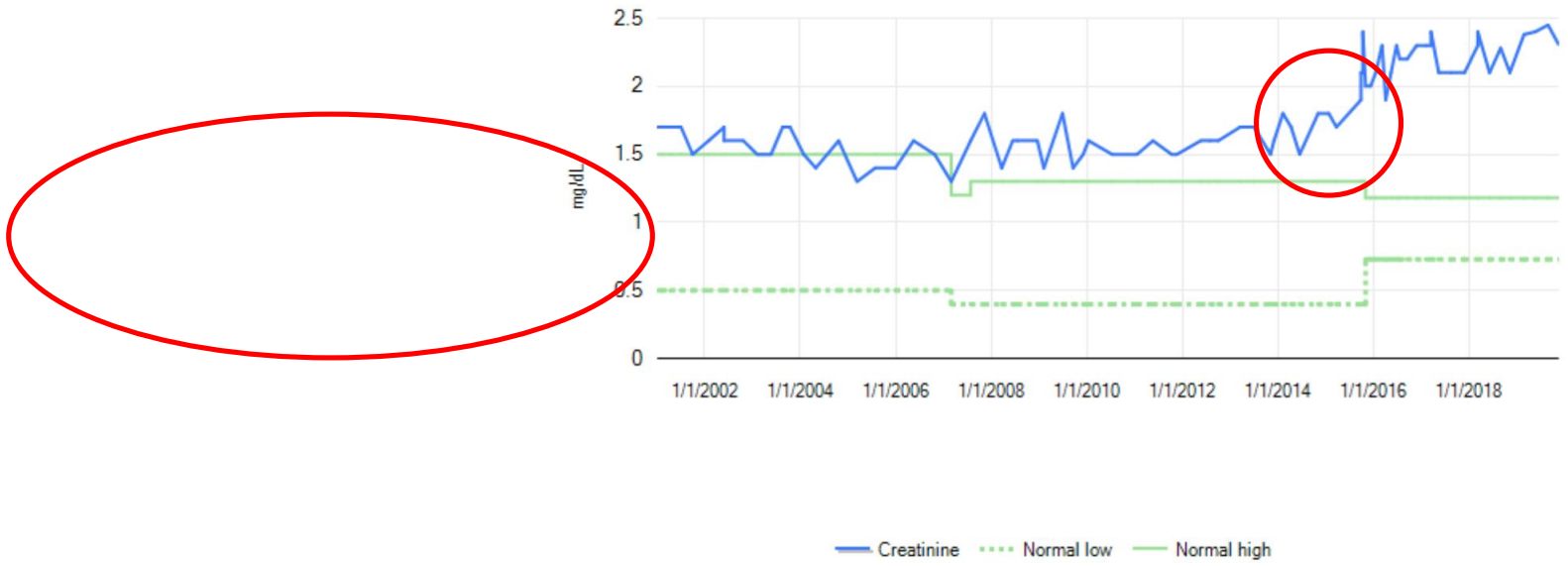
Kenya partners with organizations and helps them improve their strategic outcomes.

Organizations look for her assistance in the definition of the set of Design Thinking practices that make sense for their organization, including user/market research and collaborative problem/opportunity definition and design. Her career as a user experience practitioner and leader in the software solution space spans over 19 years.

Kenya has a doctorate in Human Factors. Her training in Human Factors, included coursework in cognitive and applied experimental psychology and industrial engineering. Her training coupled with her experience give her the ability to help teams define the set of activities and processes necessary to create solutions that are at the intersection of meeting business expectations and user needs.

Michael's Story

Quality of Data Matters
Stair stepping Creatine over 33 years



Evolution of Connecting Business to IT

Role Evolution

Evolution of roles

- ✓ 20-25 years ago 2 great booms in IT caused a supply/demand shift for BA resources. (Internet & Y2K)
- ✓ BA's were in huge demand, to the point that there were not enough resources available
- ✓ New resources moved into the BA space which were SME's (Subject Matter Experts).
  - ✓ Requirement Documentation Changed
  - ✓ Less emphasis on Requirements more emphasis on deliverables
  - ✓ Development methodology changes

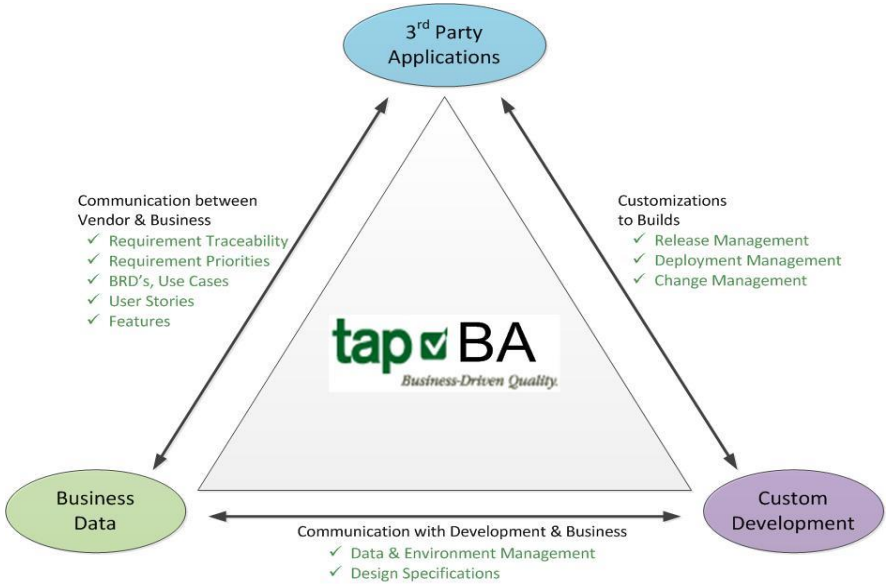
Quality BA

Adding Quality

- ✓ Not just a SME role
- ✓ Creating both Business and IT requirements
- ✓ Understanding of Design Specifications & Features
- ✓ Deep involvement with QA

BA/QA Resources

- ✓ From über-expert resources with 20 + years of experience to requirement managers
- ✓ Certified BA Consultants
  - ✓ B2T Training & Certifications
  - ✓ IIBA Training & Certifications



Roles

Business Analyst

- ✓ Business Analysis
- ✓ Translate process, system and product functionality
- ✓ Create detail designs, BRD's, Use Cases, User Stories
- ✓ Conduct JAD sessions
- ✓ Understand backend design & IT process

Requirements Manager

- ✓ Extract Requirements
- ✓ Document Requirements
- ✓ Create Requirements Traceability

A challenge in healthcare

Actuary Tables

Overview
The first one was for the Actuary team who was responsible for the integrity and correctness of all of the rates for every one of their plans. They do quarterly releases updating these rates, but the process is very manually time consuming, and is prone to human error. Rate changes do happen outside of release windows.

Solution
Create an automated rate comparison test suite run nightly, and compare rate results to what was observed the day before. From that we generate excel doc that shows the overall status of how many rates changed, as well as what they were and what they change was. With that report the actuary team is then able to track down what changes happened where, and they know they only have to scope their triage work to changes made in the last 24 hours.

Result
That particular effort is half business process automation and half test automation. The full suite for both Vision and Dental plan comparisons encompasses 2840 business cases with multiple validation points. Saving **190 hours of manual effort**. Since implementing this 6 months ago, the Actuary team has resolved over 100 rate discrepancies.

Data Management

Overview

Copying production data was off the table & data was stored in a lot of different databases. Tables cross reference and update in batch processes, so deploying and refreshing data take ages. Additionally most functions of the application are transformative to data in some way, meaning that whatever data you found to use will go stale after a single use.

Solution

To get around this problem we started a new requirement for new development items to include data documentation, that is automated data creation for each business scenarios. This ensures that that there will never be false positives for failed tests that were unable to complete due to environmental or data issues. The scenarios are written in Cucumber following BDD so test cases are written in plain English, can be executed by automation or manual teams either on scheduled jobs or on demand. Additionally even if manual testers are executing the test, the data import happens and they are set up to have all the data needed to validate the acceptance criteria of that particular business case.

Results

The benefit of this is that there is a lot more transparency and accountability to their databases which are layers and layers of legacy systems, the oldest being the AS400 system where there is only 2 people in the company left that know anything about how it works. We are starting to slowly and incrementally document out this as new development work that impacts it happens and there has been tremendous advances in reducing the amount of accidental contamination of data.

It’s about the “what”
and the “when”

The problem…

- Transition to systems and technology poses benefits and challenges
- Governance and security adds complexity
- Providers and patients are non-technical end users

Examples…

- Customer support re: coverage or claims
- Member searching for a provider

What we have learned…

1. Consumer needs and expectations are not understood
2. Solutions are technology driven
3. Process and tool experiences have yet to align with users' current standards

Thank You

Questions?

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