Adventures in Modern Testing

Alan Page

This is not a future of testing talk
This is a talk about embracing change

It is not the strongest or the most intelligent who will survive but those who can best manage change. --Charles Darwin
These are stories about my real world experiences...
Rewind ~7 years
2011-2013 - Xbox One

Two Year Product Cycle

“Traditional” Org Structure / Test Team

I begin to develop the idea of a test org as a community
2014 - “Project Astoria”

No Testers (ish)

Data is valuable
Data can replace some testing

I realize that developers can be very good at testing
2015 - 2016 - Microsoft Teams

No Testers (ish)

Developers Own Testing (ish)

I think and talk more about Testing without Testers
Summary:
Lessons Learned
1. Eliminating / Abandoning Test Teams without a plan is a poor business decision

2. Developers can be good testers (and test automators)

3. Helping (and coaching) the *whole* team test and make better software is a great role for many of those currently in a testing role

4. Community plays an important role in all of this
2017-Now: Quality Director (Community Leader) for Unity Services

Modern Testing Applied! (application in progress)
The inevitable evolution of the Test Role...
Crossing the Chasm
What Is Modern Testing?

AB testing
#OneOfTheThree

@alanpage | angryweasel.com
Modern Testing is the Antidote for “Traditional” Testing Methods
“Traditional Testing”

- Separate (and often siloed) Test team
- Concerned with consistency & predictability
“Agile Testing”

- Test Specialist on Feature Team
- Works *primarily* on testing tasks needed for feature / product quality
“Modern Testing”

- Test Specialist on Feature Team
- Data-driven and customer obsessed
- Passionate about efficiency
Revisiting “Traditional” Testing
I Believe “Traditional” Testing Harms Business Goals By:

- Creating unnecessary delays and costs
- Being focused on code and specification correctness instead of quality
- Enabling a ‘safety net’ culture and failing to deliver on the promise of moving quality upstream
- Treating test activities as an innate specialization that cannot be taught
- Favoring isolationism over community
Focuses on speeding up the Team

Specializing Generalist

Always Learning

Equal member of the Feature Team

Leverages customer data extensively

Test/Quality Coach

Does some testing
"Principles are what allow you to live a life consistent with those values. Principles connect your values to your actions"
ONE

Our priority is improving the business
Improving the Business

Testing contributes positively to the business by reducing costs and increasing revenue.

Priority is delivering quality and customer satisfaction (not code / functional correctness).
TWO

We accelerate the team, and use models like Lean Thinking and the Theory of Constraints to help identify, prioritize and mitigate bottlenecks from the system.
Accelerating the Team

Eliminate inefficiency

Find and mitigate bottlenecks

Removing delays

Know / apply lean principles
Accelerant Shifts

We value:

- **Pairing** over Handoff
- **Team Goals** over Individual ownership
- **Serializing** over Parallelizing
- **Tooling and Infra** over Hiring more people
- ...
Pairing, Coaching and Teaching
THREE

We are a force for continuous improvement, helping the team adapt and optimize in order to succeed, rather than providing a safety net to catch failures.
Continuous Improvement

Help the team learn from mistakes and adapt

Testers are NOT the last line of defense

Being a safety net is a bottleneck (see principle number 2)
We care deeply about the quality culture of our team, and we coach, lead, and nurture the team towards a more mature quality culture.
Quality Culture

Quality culture is a shared mindset
Requires leadership, communication, tools, learning, and desire to improve
It’s a people problem
Quality Culture - Potential Attributes

- Quality Ownership
- Breadth of Testing
- Technical Debt and Maintenance
- Code Quality and Tools
- Development Approach
- Data usage
- Leadership
FIVE
We believe that the customer is the only one capable to judge and evaluate the quality of our product.
The Customer

Who is your customer? HINT: you are not the customer

Are you building the right product?

Focus on the business (principle number 1)

Collect data
SIX

We use data extensively to deeply understand customer usage and then close the gaps between product hypotheses and business impact.
Data

Understand the real customer experience

Shipping is a hypothesis

Learn and adapt
Getting Started with Data

1. Ask, what does business success look like for this component / feature?

2. Add logging / instrumentation / analytics to answer question #1

3. Evaluate and adjust
SEVEN

We expand testing abilities and knowhow across the team; understanding that this may reduce (or eliminate) the need for a dedicated testing specialist.
Expand testing knowhow across the team

Software testing isn’t a dark art

Focus on the first half of this principle. If the second half is meant to be, it will happen naturally

Generalizing is good
The Modern Tester is a Specializing Generalist
SW Eng - perf specialist
SW Eng - database specialist
SW Eng - devops specialist
SW Eng - Front End specialist
SW Eng - Data specialist
SW Eng - Test specialist
Twisting the Matrix Org

Me

Tester

Tester
Twisting the Matrix Org
Modern Testing Principles

The Modern Testing Mission Statement
Accelerate the Achievement of Shippable Quality

The MT Principles
These continue to be a work in progress – feel free to add comments, or join our slack group for a more detailed discussion.

The seven principles of Modern Testing are:

1. Our priority is improving the business.
2. We accelerate the team, and use models like Lean Thinking and the Theory of Constraints to help identify, prioritize and mitigate bottlenecks from the system.
3. We are a force for continuous improvement, helping the team adapt and optimize in order to succeed, rather than providing a safety net to catch failures.
4. We care deeply about the quality culture of our team, and we coach, lead, and nurture the team towards a more mature quality culture.
5. We believe that the customer is the only one capable to judge and evaluate the quality of our product.
6. We use data extensively to deeply understand customer usage and then close the gaps between product hypotheses and business impact.
7. We expand testing abilities and knowhow across the team; understanding that this may reduce (or eliminate) the need for a dedicated testing specialist.

https://moderntesting.org
Accelerate the Achievement of Shippable Quality
Let's run with modern testing, folks!

Some excellent points here. What I like about the whole modern testing thing is it is generating really good conversations. Let's keep talking and experimenting!

In a world of modern testing and unified engineering, no matter what role I end up in I will always have a focus on quality due to my background and you know what...That's a value add right there for any role. Testers need to know their net worth @alanpage @BrentMJensen

Application of modern testing for testing a modern application

Quality is not synonymous with testing. Automated testing in a CI
“The future is already here — it's just not very evenly distributed.”

- William Gibson
Thank you!