Slow Down to Go Fast: Lessons Learned Shipping Bing Voice Search on Xbox

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Who is this James guy?

http://blogs.msdn.com/b/progressive_development/
The little engine that could
Who is this Randy guy?

randyrants.com

Randy No Arms' ongoing commentary on life, gaming, and the rest of the world.
From that little Redmond startup...
How is your short term memory?

Dory says...

“Please jot down your questions and save them for the end.”
How to win the race

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By James McIlvain, Foundry Venture

The Tortoise and the Hare

The “Tortoise and the Hare” is an age-old story about a hare (rabbit) that ridicules a very slow-moving tortoise, and is ultimately challenged by the tortoise to a race. The race begins and the fast-moving hare leaves the tortoise behind and, confident of winning, decides to take a nap part-way through the race. When the hare awakes, he finds that the tortoise, with his slow-moving pace, has finished the race ahead of him.

How does this apply to software development? Is your hare the tortoise or the hare?"
Just Bing it!

search Xbox for apps...

Say "Xbox, Bing Netflix"
The internal workings

- **Controller Input**
- **Voice Input (Kinect)**
- **Voice to Text**
- **Xbox LIVE**
- **Games Movies TV Music Apps**
- **Applications**

Microsoft Agile 2012
Story time!

A Tortoise’s Guide to Agile
Once upon a time...

Tom's Phrases
1) Baited Breath
2) Don't look a gift horse in the mouth
3) Happy as a clam
   (But I'm not sure why clams are happy)
4) Comedy of errors
5) Pig in a poke
6) Sometimes in life when I'm kind of confused...
7) No user, no search
8) I wrote test cases in the can
9) B.ddy Building/Cake Review Meeting
10) We're having a Bredo (Oh My)
11) Ed is "the bringer of pliss"
12) Positive Tom doesn't rant
13) Now is the time to create Scary things
They lived in a world where...
Boundaries existed
Kick off!
Their first task
Best buddies?
Test/Dev: Best Buddies?
The buddies worked together...

Dev:
- sends code review

Team:
- signs off on code
- dev checks in code
They huddled every day around this archaic board
Comprehensive documentation? Well, no...
Many dependencies, great responsibility
We used **Milestones** “checkpoints”
Nobody is perfect
"I got your back, Bro"
What’s this about “Exit Criteria”? 
Reality hurts
The answer? Begin with the end in mind!
It’s the thought that counts

1. Turn on ETX Tracing via configuration tool
2. Navigate the Bing home page and type in the search term “The Simpsons”
3. Validate the log to ensure the search term is reflected, as well as results
Automation happens!

AUTOMATE
ALL THE THINGS
...but we didn’t automate everything
Why NOT automate everything?

AUTOMATION SAYS

The Cost of Automation
How much money have you spent on this test automation?
Just $200,000.

How many manual testing hours have you replaced?
None.

What are you doing then?

IT'S FINE

Cartoon designed by Raimond Sinivee
Andy Glover cartoontester.blogspot.com Copyright 2011
We all took responsibility for quality

Quality Ownership

Dev  Test  PM  Design

I WILL CRUSH U LIKE A BUG!
Working in lockstep
“Unit Tests make me feel cuddly”

“Thinking test-first helped me get the design right the first time”

“Is it failing because of a problem in the code, or because I don’t understand the code”

“Unit tests flagged a real bug in legacy code that I never would have found”

“In God we trust. Everything else we unit test”

“My unit tests revealed a subtle bug that never would have been found otherwise [except potentially by the customer]”

Real, unsolicited quotes from Xbox developers
No unit tests? You’ve got some ‘splaining to do!
Bugs still happen

![Bug Trends Graph](image)
Bugs were “bliss” to this team
What should YOUR team do?

Start “by the book”, and always follow the principles, but break agile as necessary.

- Form dev/test buddies early
- Build quality in early – remove the walls
- Collaborate in person and in writing
- Create “done” definitions based on tests
- Automate pragmatically, using coverage to adapt
- Pay down your technical debt before it is long-term
Questions?

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