W9
Test Automation
Wednesday, May 2nd, 2018
1:45 PM

Continuous Testing vs. Test Automation: Three Key Differences

Presented by:

Wayne Ariola

Tricentis

Brought to you by:

350 Corporate Way, Suite 400, Orange Park, FL 32073
888-268-8770 ⋅ 904-278-0524 - info@techwell.com - http://www.stareast.techwell.com/

Wayne Ariola

Tricentis

Known for his efforts to promote continuous testing, Wayne Ariola has contributed to the design of many innovative technologies and received several patents for his inventions. A recognized leader on topics such as service virtualization, SOA and API quality, software quality governance, and application security, Wayne is a frequent contributor to industry publications and author of Continuous Testing for IT Leaders. He has been a contributor to software testing for fifteen years and in the software industry for more than twenty.

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Continuous Testing v. Test Automation
Wayne Ariola
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Agenda

1. What has Changed?
2. The three differences with Continuous Testing
3. Testing at the Speed of DevOps

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How would you rate the success of test automation…

- ☐ a success story
- ☐ so so
- ☐ a failure

?

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Rate the Success of Test Automation…

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Test automation has not kept its promises.

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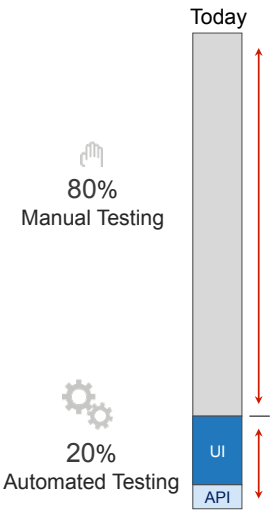

The reliance on manual testing is the top technical challenge in app development.

World Quality Report, 2017

Test automation requires developers.

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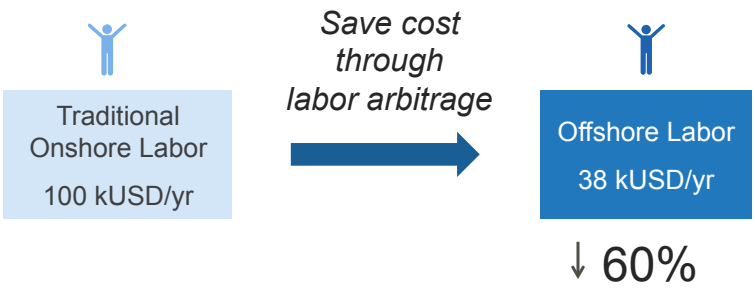
People



Satisfied?

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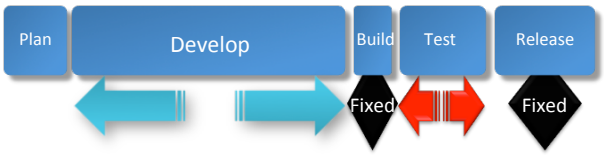
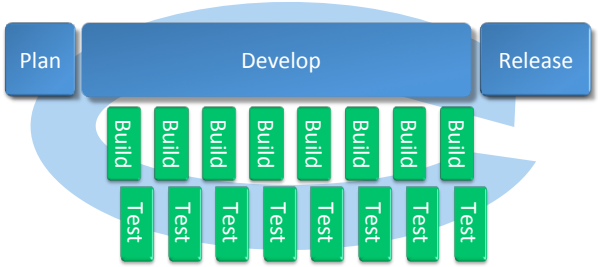
Process

Test as a time-boxed event



Test is Continuous



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Technology and Disruption

Initiatives	Technology	Failure	Compliance	Switching Cost
• DevOps • Agile • Lean • Bi-Modal	• Microservices • Containers • Cloud • IoT	• Production Outage • Application Slow • User Experience • Connectivity	• Security • Safety Critical • Financial • FDA • Automotive • Aerospace	• SaaS • Mobile • APIs • IoT

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Top Tier Vendors

Source: Gartner (November 2017)

HPE Strategy Clear As Mud

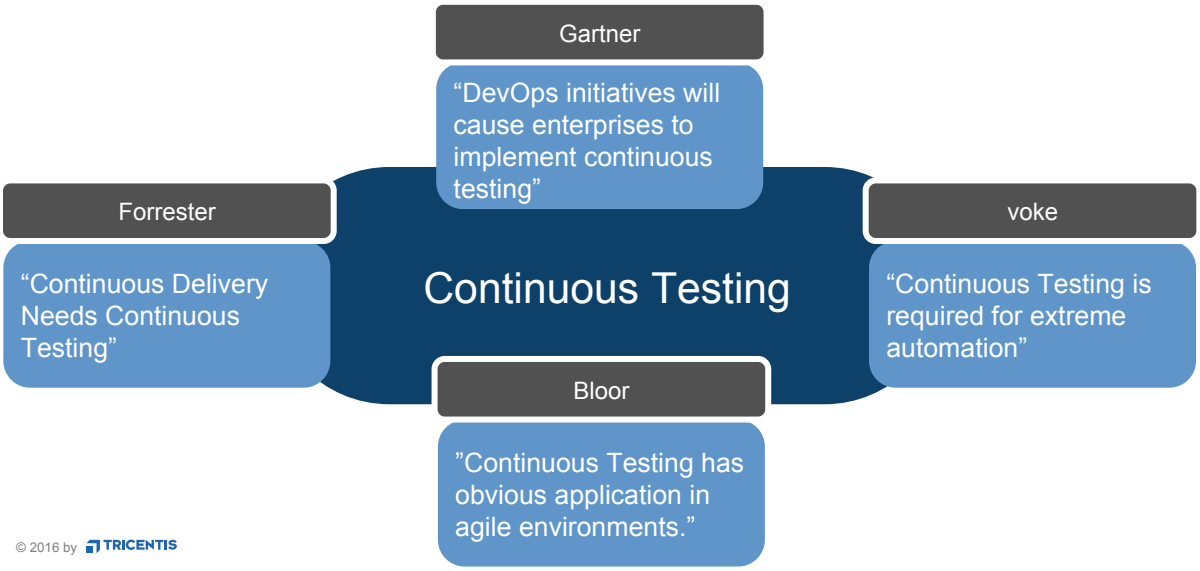
http://it-tna.com/2016/09/28/hpe-strategy-clear-as-mud/

IBM Punts Development to HCL

http://www.theregister.co.uk/2016/10/03/ibm_hcl_software_outsourcing_deal/

Tricentis Delivering Continuous Testing at the Speed of DevOps

Analysts Align



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The Perfect Storm – Digital Disruption

Initiatives	Technology	Failure	Compliance	Switching Cost
• DevOps • Agile • Lean • Bi-Modal	• Microservices • Containers • Cloud • IoT	• Production Outage • Application Slow • User Experience • Connectivity	• Security • Safety Critical • FDA • Automotive • Aerospace	• SaaS • Mobile • APIs • IoT

Mitigate Business Risk

Continuous Testing

- Model Based Test Automation
- Risk Based Testing
- Exploratory Testing
- Mobile Testing
- BI/DW Testing
- API Testing
- Test Data Management
- Service Virtualization

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What is Continuous Testing

Continuous testing is the process of executing automated tests as part of the software delivery pipeline in order to obtain feedback on the business risks associated with a software release candidate as rapidly as possible.

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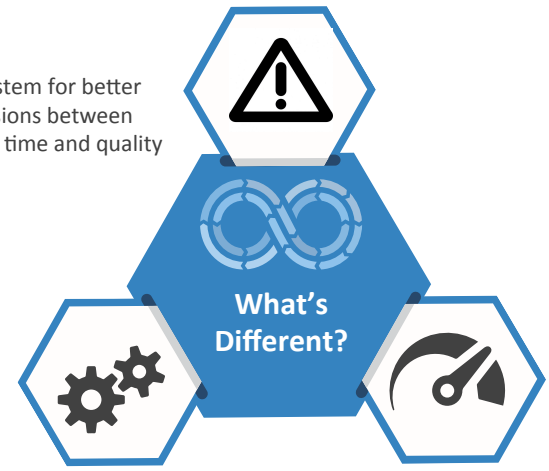
Continuous Testing – What's Different?

RISK
A feedback system for better trade-off decisions between release scope, time and quality



BREADTH
The boundaries of an application are eroding. Advanced automation is required for end-2-end testing

TIME
Its speed because time-to-market matters not because development can release faster

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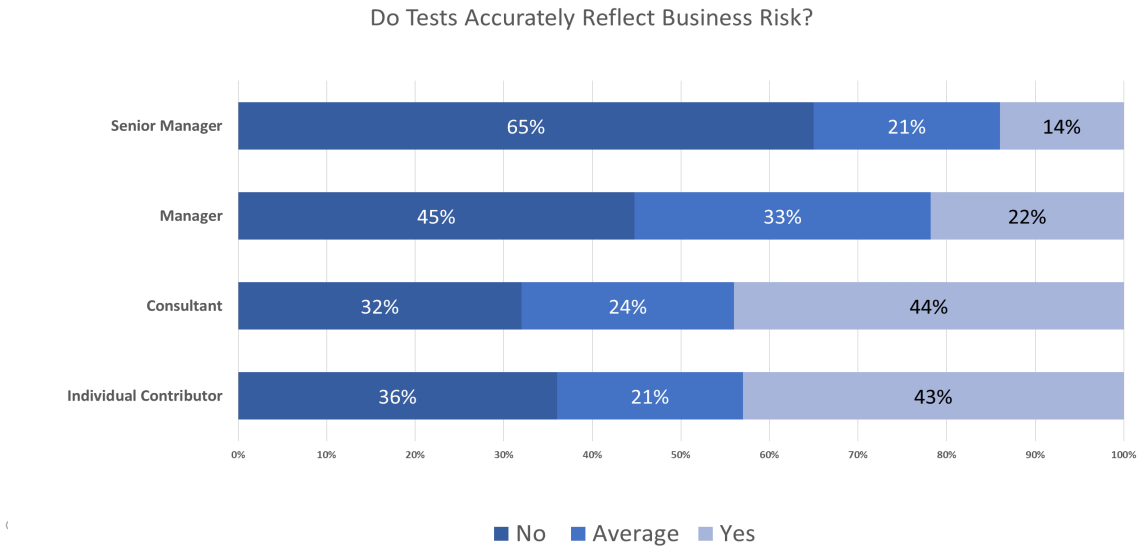
Survey on Risk

2017 Survey on the Future Role of the Tester https://www.surveymonkey.com/r/SWB7F3Q



Does the release candidate have an acceptable level of risk?

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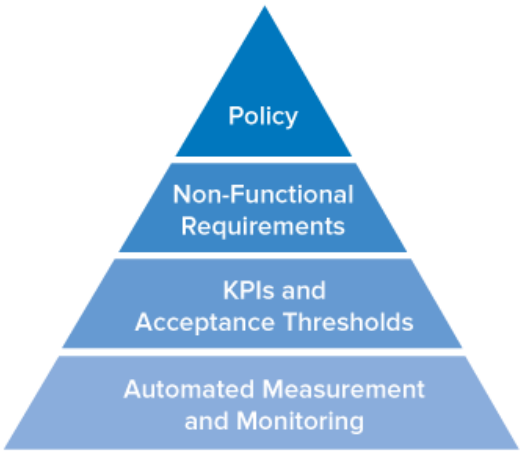
How to Achieve Quality @ Speed

- Business risks drive quality activities
- Teams collaborate on risk definition
- Risk definition drives test case design
- Execution prioritized per risk definition
- Acceptance criteria visible and measured
- Results of quality activities are visible and translated for all levels of business



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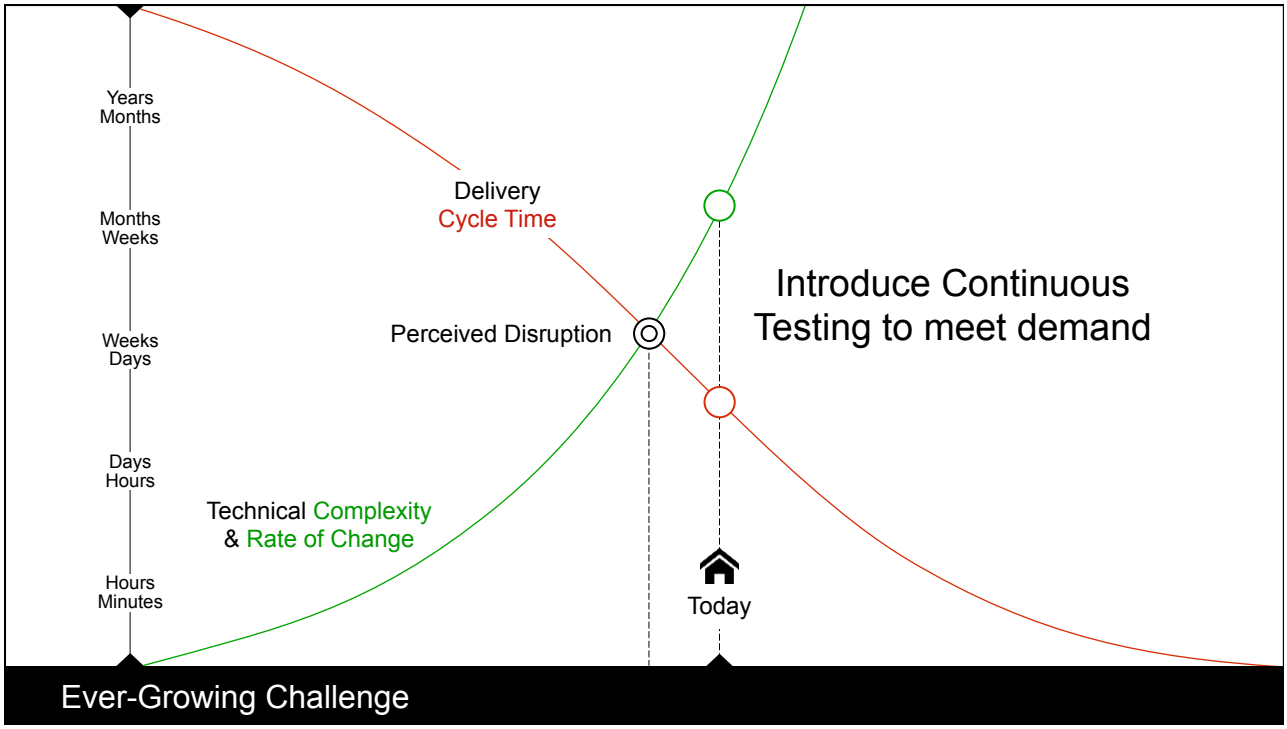

18%

(official) overall test automation degree

8%

(official) enterprise test automation degree

Really ?

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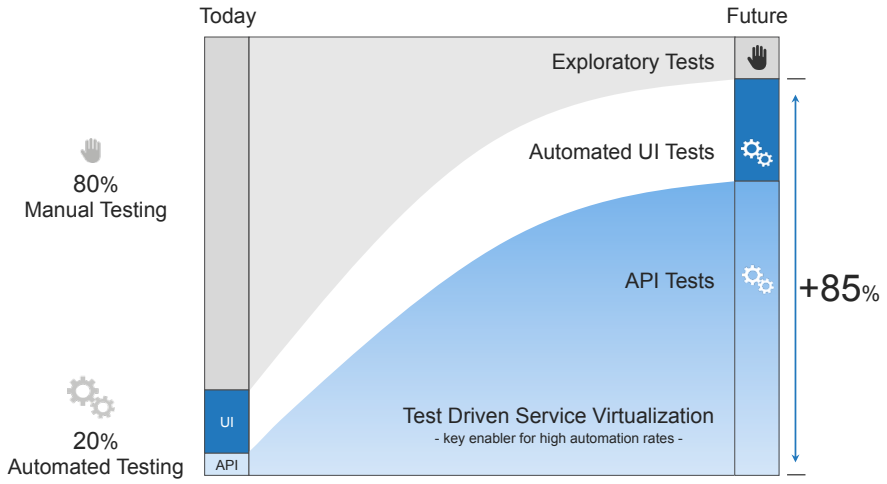
Continuous Testing requires Automation



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Explore

Session Based Exploratory Testing

Optimize

Risk Based Prioritization
Test Case Design

Automate

UI- and API based test automation

Manage

Active Test Data Management
Test Driven Service Virtualization

Integrate

CT Integration (CI, CD)

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Introduce Session Based Exploratory Testing

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Session Based Exploratory Testing

All testing starts with a Risk Based Prioritization

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Session Based Exploratory Testing

Risk Based Prioritization

Optimize your risk coverage: Test Case Design

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Session Based Exploratory Testing

Risk Based Prioritization
Test Case Design

UI- and API based test automation

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Session Based Exploratory Testing

Risk Based Prioritization
Test Case Design

UI- and API based test automation

Prevent false+: Active Test Data Management

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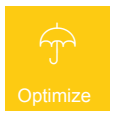
Session Based Exploratory Testing



Risk Based Prioritization
Test Case Design

UI- and API based test automation

Active Test Data Management

Provide stable infrastructure: Test Driven Service Virtualization

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Session Based Exploratory Testing

Risk Based Prioritization
Test Case Design

UI- and API based test automation

Active Test Data Management
Test Driven Service Virtualization

CT Integration (CI, CD)

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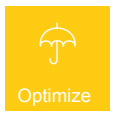
Session Based Exploratory Testing



Risk Based Prioritization
Test Case Design

UI- and API based test automation

Active Test Data Management
Test Driven Service Virtualization

CT Integration (CI, CD)

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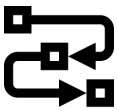
Key Points of Continuous Testing

https://www.tricentis.com/what-is-continuous-testing/

- Primary goal is assessing business risk coverage

- Establishes a safety net that helps the team protect the user

- Always on, stable test environment



- Seamlessly integrated into the software delivery pipeline and DevOps toolchain

- Delivers actionable feedback appropriate for each stage of the delivery pipeline

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Q&A

- Continuous Testing vs Test Automation Paper https://www.tricentis.com/resource-assets/continuous-testing-vs-test-automation/
- What is Continuous Testing (w/ 14 Key Points) https://www.tricentis.com/what-is-continuous-testing/
- Survey – The Role of "Tester" in the New Digital Age https://www.surveymonkey.com/r/SWB7F3Q

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