Crowdsourced Testing

Hamish Leighton
Agenda

- Why Crowdsourcing?
- What is Crowdsourced Testing?
- Why 100,000+ Testers Participate?
- Client Case Studies
- Q&A
A Quick Case Study To Start

- **Cycle 1 – Exploratory Testing**
  - 24 Hours to ramp up team

- **Cycle 2 – Test Case Execution and Exploratory**
  - Hybrid solution
  - Locally Write 60 Test Cases/Scenarios
  - Execute via Crowd across 20 devices (1200 Individual Test Case Executions)
## Crown – Mobile Wagering Application

<table>
<thead>
<tr>
<th>Cycle 1 - Exploratory</th>
<th>Cycle 2 – Test Case Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 Testers</td>
<td>110 Testers</td>
</tr>
<tr>
<td>18 Countries including Australia</td>
<td>11 Countries including Australia</td>
</tr>
<tr>
<td>500+ Defects</td>
<td>400+ Defects</td>
</tr>
<tr>
<td>361 Valid defects</td>
<td>302 Valid defects</td>
</tr>
<tr>
<td>50+ Devices</td>
<td>20+ Devices</td>
</tr>
<tr>
<td>2 days to report 80% of defects</td>
<td>2 days to execute 1,200 scripts</td>
</tr>
<tr>
<td>5 days Cycle complete inc TSR</td>
<td>5 days Cycle complete inc TSR</td>
</tr>
</tbody>
</table>
Quiz

How many defects were non-reproduceable or the Dev Team required further info?
Why Crowdsourced Testing?

- **SPEED:** Faster Test Cycles, Faster Team Ramp Up, No Holding Costs
- **COVERAGE:** Greater Test Coverage across Devices, Platforms and Operating Systems
- **TEST WHAT IS REAL:** Testing by real users with real devices, platforms, networks and locations in real time
- **ACCESS TO TALENT:** 100,000+ Crowd Testers globally in our network alone
- **DEFECT DETECTION:** Rates increase
- **LOWER COST:** Cheaper testing utilising global spare capacity
What is Crowdsourced Testing?

- Obtaining testing services from a large global community of Testers and Users
- One of the fastest growing world-wide trends
- Proper testing (not just exploratory testing)
- Utilises a cloud based platform for managing distributed teams of Testers.

A professionally managed, geographically distributed group of Testers. Connected by a cloud based platform.
Who is in the Crowd?

- Specialist Testers:
  - Full-time/Part-time/Casual/Overtime
  - Testers between jobs
  - Graduates

- Users:
  - Seasoned Industry Professionals & Subject Matter Experts
  - General Public Users
  - Your Staff

- Locations:
  - Onshore, Overseas
  - Developed & Developing Countries
Who is using Crowdsourced Testing?

Banking, Insurance, Financial Services

- Allianz
- ANZ
- HSBC
- AIG
- ennovent
- LV= Liverpool Victoria
- worldpay
- allpay
- UniCredit
- Deutsche Bank
- Die Mobiliar
- Credit Suisse

Revolution IT
Who is using Crowdsourced Testing?

Retail, eCommerce, mCommerce, FMCG
Who is using Crowdsourced Testing?

Media & Entertainment
- BBC
- Disney
- De Telegraaf
- Red Bull Media House
- nrc media
- De Persgroep Nederland
- Bild

Telecom, Internet & Utilities
- Telefonica
- 1&1
- swisscom
- UPC Cablecom

Digital Marketing, Social Networks & Analytics
- Hogarth Worldwide
- 9xb
- JWT
- PeopleBrowsr
- Appitized
Who is using Crowdsourced Testing?

**Software, ICT & Information Services**
- Microsoft
- Google
- Intuit
- Skyhigh
- ABP
- AIM
- Diduce
- Mindtree
- Cerner
- DEYA
- GENPACT
- STC ThirdEye

**Automobiles / Manufacturing**
- Audi

**Consumer Electronics**
- Philips

**Travel**
- ANWB

**Education**
- YouScience

**Public Sector**
- Met Office

**Charity / NGO**
- RNIB

**Revolution IT**
Where To Use Crowd Testing

Suitable Applications

Suitable Projects

Suitable Test Types
Most Suitable Applications

Public facing, customer facing, supplier facing and user-centric

Mobile Apps

Web Applications

Cloud Applications
Most Suitable Test Types (Agile or Waterfall)

- Functional Testing / Regression Testing
- Usability Testing
- Cross Browser / Cross Device Testing / Compatibility Testing
- Exploratory Testing
- Production Verification Testing – Alpha Testing & Beta Testing
- Performance Testing
- Security Testing
- Static Testing
## Comparison

### Self Service Vs. Managed Crowd Vs. Hybrid

<table>
<thead>
<tr>
<th>Feature</th>
<th>Self Service Crowd Testing</th>
<th>Managed Crowd Testing</th>
<th>Managed Crowd &amp; Hybrid Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crowd Testing Platform</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Access to Crowd Testers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Defects Reported by Crowd</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Defects Reviewed, filtered, validated, prioritised &amp; duplicates removed</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Manage &amp; facilitate crowd - Test Plan &amp; Test Summary Report</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Test Cases &amp; Test Execution Results</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Onshore / Local Delivery Management &amp; Governance</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Onshore / Local Test Analysis &amp; Design (Dedicated Professional Test Analyst)</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
How does Managed Crowd Testing work?

**Customer**
- Request for crowd testing with Application & Project background, scope, testing instructions
- Provide Test Environment
- Provide Initial Test Data

**Managed Crowd Company**
- Organise Test Environment
- Prepare Test Plan
- Prepare Test Cases
- Review & Update Test Results
- Review & Update Defects (Remove duplicates)
- Export Defects Log
- Prepare Test Summary Report

**Crowd Testers**
- Organise Initial Test Data
- Select Testers from the Crowd
- Accept to participate & Contribute
- Log Test Results
- Log Defects
- Create additional Test Data
- Execute Tests
- Reproduce high severity Defects
- Assess Tester Performance
- Process Tester Payments
- Receive Payment
Managed Crowd Defect Validation Process

- Crowd Tester
  - Raise

- Elite Crowd
  - Validate

- Offshore Test Mgr
  - Validate and Prioritise

- Onshore Manager
  - Review and Prioritise

- Customer
  - Confirm/Accept
Real Time Reporting

MY DASHBOARD | Testing the Test Environment of Crowdtest.com.au

Testers and Defects

381 Defects reported

Testers participated 90
Testers active 34
Valid defects 122

VALID DEFECTS BY CATEGORY

Functional 60
Technical 10
UI 40
Usability Suggestion 4
Real Time Reporting

DEFECTS BY STATUS

VALID DEFECTS BY SEVERITY

- Medium, 29
- High, 7
- Show Stopper, 0
- Low, 76
# Real Time Reporting

<table>
<thead>
<tr>
<th>ID</th>
<th>Summary</th>
<th>Tester Name</th>
<th>Severity</th>
<th>Status</th>
<th>Category</th>
<th>Posted Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>385</td>
<td>The Leaderboard and the Winners link not working.</td>
<td>Mubeen...</td>
<td>Low</td>
<td>New</td>
<td>Functional</td>
<td>20/05/15</td>
</tr>
<tr>
<td>384</td>
<td>Place Colon &quot;;&quot;</td>
<td>Pavithra</td>
<td>Low</td>
<td>New</td>
<td>GUI</td>
<td>16/05/15</td>
</tr>
<tr>
<td>383</td>
<td>Save Button Cut-off on Welcome Device Page in IE11 B...</td>
<td>Prince...</td>
<td>Low</td>
<td>New</td>
<td>GUI</td>
<td>13/05/15</td>
</tr>
<tr>
<td>382</td>
<td>Client screen viewing individual defect: in the comm...</td>
<td>Bala K...</td>
<td>Low</td>
<td>Suggestion</td>
<td>Functional</td>
<td>12/05/15</td>
</tr>
<tr>
<td>381</td>
<td>When viewing a specific defect,</td>
<td>Pragat...</td>
<td>Low</td>
<td>Suggestion</td>
<td>GUI</td>
<td>29/04/15</td>
</tr>
</tbody>
</table>
Challenges

- Security Challenges:
  - Tester Identification
  - Connectivity (e.g. VPN)
  - Commercial Sensitivity

- Operational Challenges:
  - Setup and Briefing Testers
  - Execution Management
  - Defect Validation and Prioritisation
Can Crowdsourced Testing replace Traditional Testing?

No in some cases. Yes in some cases.

- Complementary to the local QA team, not a replacement
- A local QA team will have better knowledge of the application
- A local QA team will not give as much coverage as crowd testing in a given timeframe
- Shift in career paths over time

We promote combining Crowd with Traditional Testing
Quiz

1) What is the split between developed and developing nations in the crowd?

2) Name 2 groups of people in the crowd?

3) What are 3 Testing Types can you do via the crowd?
Why is Crowdsourced Testing Exciting to Testers?

- No interviews! (The eventual death of employment interviews?! YAY!!!)
- Experience new technologies, systems and industries
- Use for your CV, use in your job application process
- Ultimate flexibility on when and where you work
- Gamification
- Income/Extra Income

Judged by your ability. No room for poor quality work.
# Case Study

Simplot Australia – Dish’d

## Test Types
- Exploratory
- Usability
- Performance
- Scripted Cross Browser/Device
- PVT

## Key Results
- 129 Crowd Testers
- 37 Devices
- 234 Defects from 5 test types in 5 days
Case Study

AMP – Superannuation Site

<table>
<thead>
<tr>
<th>Test Types</th>
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<tbody>
<tr>
<td>Scenario Based Exploratory</td>
</tr>
<tr>
<td>Usability</td>
</tr>
<tr>
<td>Scripted Cross Browser/Device</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>49 Qualified Australian Testers</td>
</tr>
<tr>
<td>25 Devices and Browser Combinations</td>
</tr>
<tr>
<td>200+ Defects in 5 Days</td>
</tr>
</tbody>
</table>
Gartner’s Market Guide for Crowdsourced Testing Companies

My favourites from the list of 18

America
Applause.com (uTest.com)

Australia
RevolutionIT.com.au
(CrowdTest.com.au)

India
99Tests.com

Switzerland
PassBrains.com

Germany
TestBirds.com

United Kingdom
Bugfinders.co.uk
Questions and Answers
Thank You

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