

Quality not Quantity

Getting value out of test automation

LOUISE GIBBS

Expectation Vs. Reality

What does the business expect from test automation?

- ✓ We will automate all tests
- ✓ We will find all the bugs
- ✓ We won't need to hire as many testers

What happens when these expectations are not met?



My first automation project

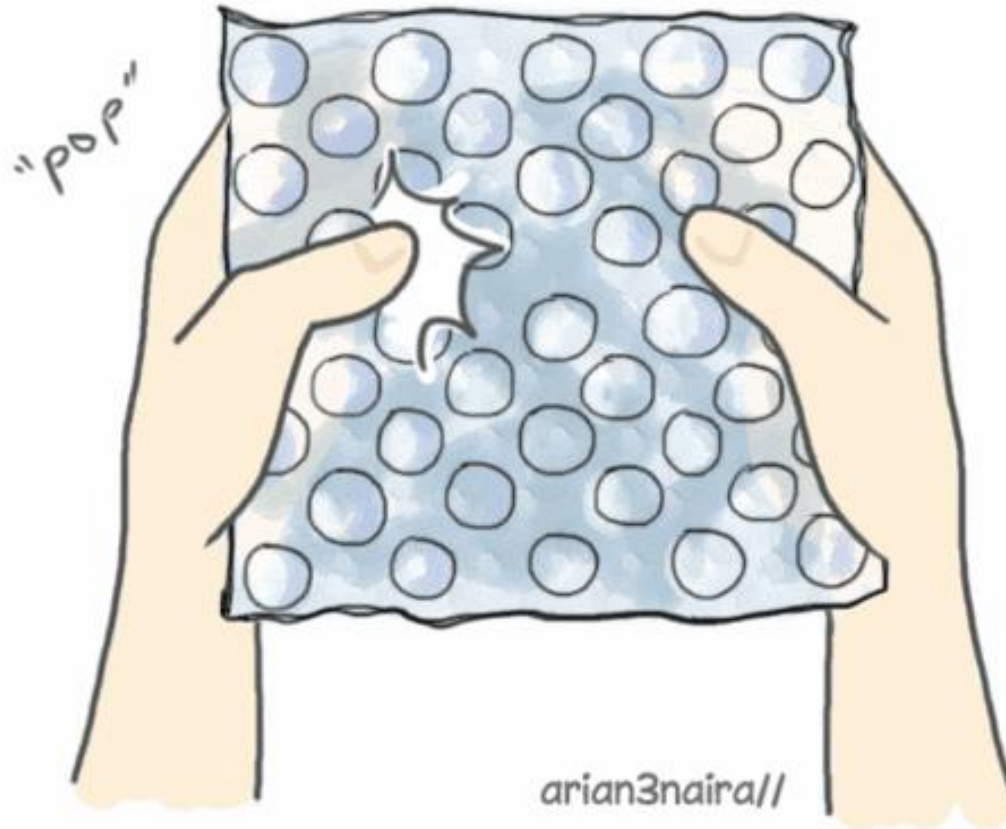
Lack of experience meant that mistakes were made

Didn't discuss what we actually wanted to achieve

Didn't assess the feasibility of automating each test

Didn't take into account potential maintenance of the tests

I LOVE BUBBLE WRAPS



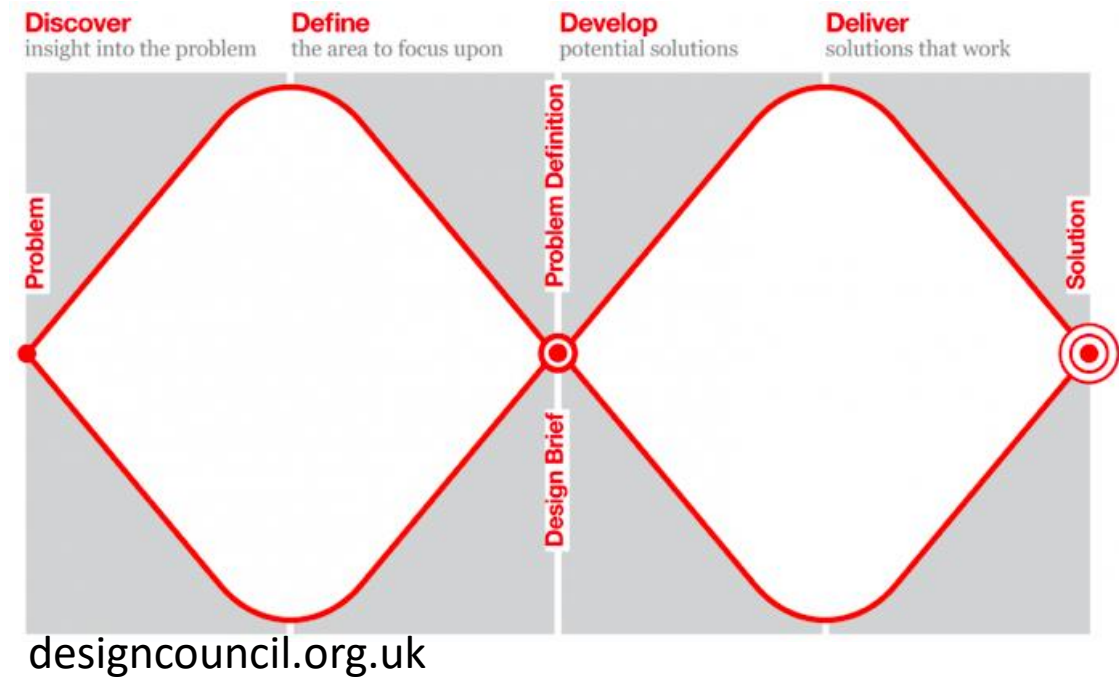


It is important to
understand why we
need Test Automation

TEST AUTOMATION

Double Diamond Design Process

- **Discover**
Get an insight into the problem
- **Define**
Choose an area to focus on
- **Develop**
Identify several potential solutions
- **Deliver**
Finalise, produce and launch the chosen solution



Discover

Get an insight into the problems currently experienced when testing the application

Hardware availability

Length of time to run tests

Long release cycle

Observing software running was difficult

Taking too long to generate data

Intermittent bugs

Repetitive, precise, or mundane tasks

Define

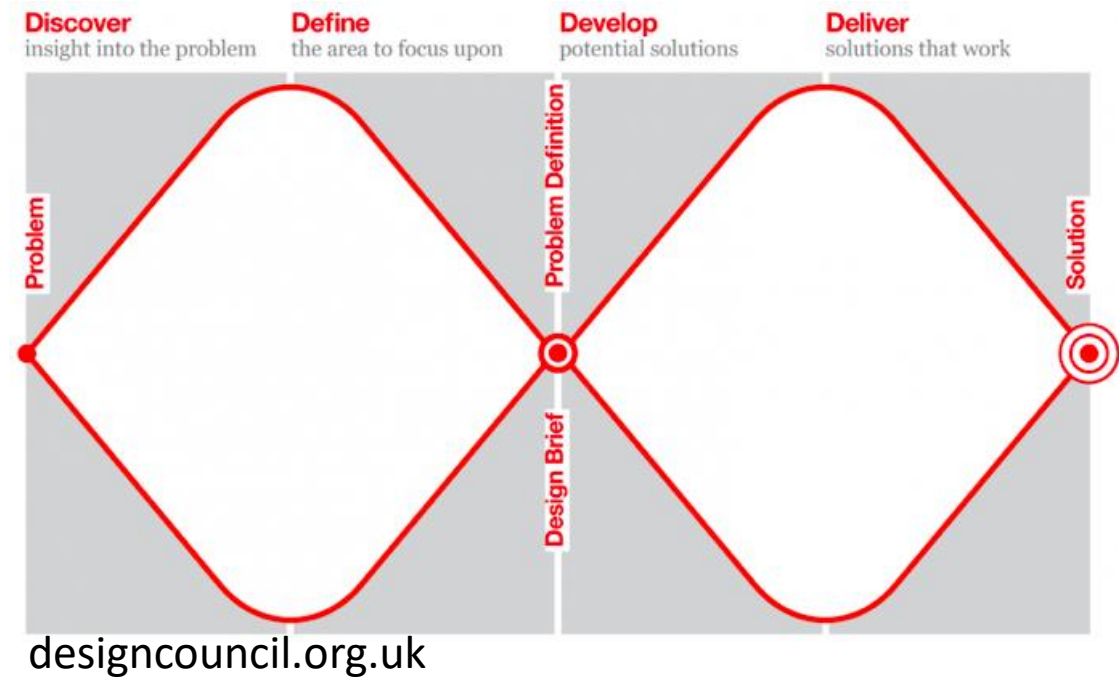
Choose an area to focus on

Reduce time taken to run through the regression test suite

Take advantage of overnight instrument availability

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Develop

Identify potential solutions

Discuss if automation is the best solution

Investigate test tools

Identify which test cases to automate

Assess feasibility of automating these test cases

Deliver

Finalise, produce and launch the chosen solution

Develop and run the automated tests



After 6 months work,
I'd only successfully
automated 10 test
cases

PROVE BUSINESS VALUE

Proving Business Value

Tests
Automated

Bugs Found

New
Information

Tests Run

Test
Coverage

Time saved

Proving Business Value

	Estimated time per test (minutes)	# Tests	Time per test (manual tests)	Tests Automated
Group 1	5	50	250	
Group 2	10	86	860	
Group 3	30	4	120	
Group 4	60	48	2880	10

**Estimated time per day:
1 tester, 5 hours a day**

Total Estimated Time:

4110 minutes
68.5 hours
14 days

Time Saved from automated tests

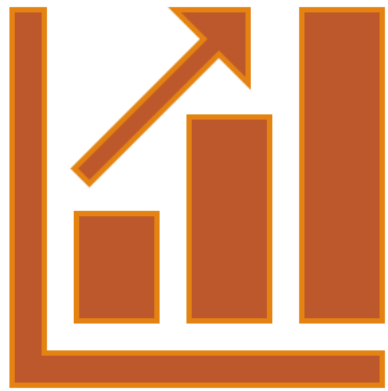
600 minutes
10 hours
2 days

**10/188 tests automated
(5.3% reduction in manual tests)**

**600/4110 minutes saved
(14.6% time saved)**

Additional Benefits

- Ability to generate data required for manual tests
- Ability to check for intermittent errors by running lots of tests
- Details log of events while running tests helped with debugging



Proving business value meant I was able to continue my work on Test Automation

PROVE BUSINESS VALUE

Current State of Tests

- Over 2 years test automation development
 - Regression tests Automated: 37/181 (20% of tests)
 - Time saved: 29/68 hours (42% time saved)
- Automated smoke tests run daily/weekly
- Partially automated tests that require additional manual verification
- One-off repeatable tests to investigate intermittent bugs

Summary

- Before starting an automated test project, have a think about what you want to achieve from it.
- Don't just automate for the sake of it. Identify problems with the current testing strategy which could be solved using test automation.
- It is important to demonstrate the value gained from automated testing so that the business will continue to support test automation.



“Which Tests Should We Automate”

Angie Jones talk on using a matrix to decide what tests to automate

Search ‘Angie Jones What tests to automate’ on youtube

“Why test automation is a lot like bubble wrap?”

Bas Dijkstra

On Test Automation

Any Questions?

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