HOUSE OF TEST

REBELS OF IT

TO BOLDLY GO WHERE NO ONE HAS GONE BEFORE

-

Educating a New Generation of Testers

By Martin Nilsson

For the lovely crowd at TAPOST!

INTRODUCTION

What is the House of Test?
And Who am I?
@martinnilsson8

THE PROBLEMS

- The Software Industry in Sweden is in need of good Testers

- Becoming a tester is a second option

- Testers who can only follow appointed steps

- Market flooded with people labeled as testers after only a three day PowerPoint course providing little value to the market

- Generally low Quality of the Professional Test Educations in our regions

THE SOLUTION

A Worlds First, One and a Half Year Long, Context Driven Test Education for Aspiring Professional Testers

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WHAT IS AN YRKESHÖGSKOLA?

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These are the Students of YHTest!

So… Why Context Driven?

THE CHALLENGES

- Testing is an extremely broad subject
- How do we the education broad enough to fit different contexts while still providing enough depth? And how do we fit such a broad subject as Test into just 1,5 years?
- How do we prepare the students to be able to provide value to a project from day one?
- How do we make the students enthusiastic and having fun while learning thus making the education and the trade more attractive?

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THE DEFINITIONS OF TEST

Questioning a product in order to evaluate it

James Bach

Testing is an Empirical technical investigation done to provide stakeholders, information about quality of a product or a service
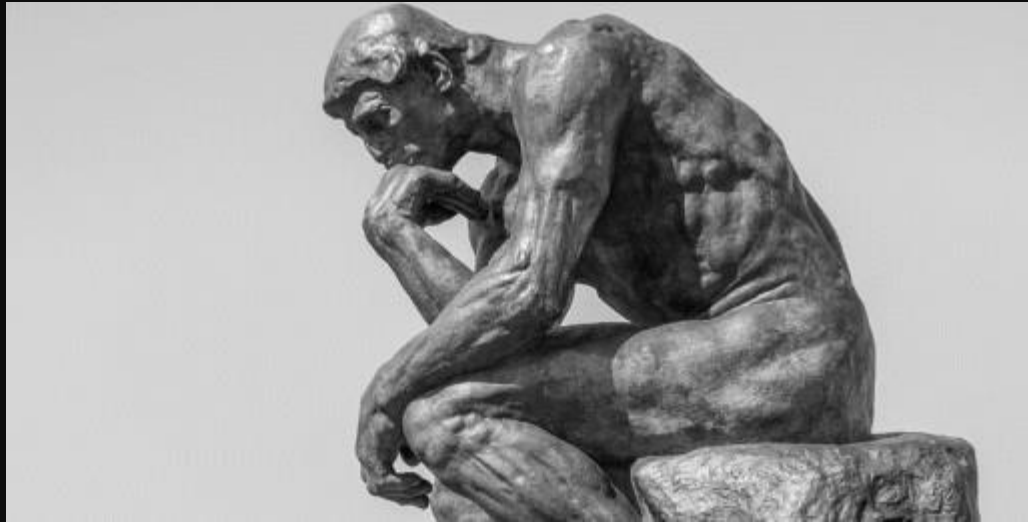
Dr. Cem Kaner

Testing is an information service

Dawn Haynes (?)

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What is left when you remove everything that is context specfic?

THINKING LIKE A TESTER

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FROM A STUDENT

"Throughout the entire course we were constantly reminded to question... One of these exercises was to design, produce and package products... we still failed to ask about everything we needed to know which ultimately lead us to delivering numerous products, after hours of work, only to be told that we had failed our task...

This exercise seemed a little harsh and nitpicking to me at the time, failing us for not asking what might be considered quite far-fetched questions. In retrospect I am incredibly grateful for these type of exercises because in the end, they started to mold my brain into the inquisitive, critical brain of a tester"*

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* Amanda Halvordsson - Women Testers Edition – April 2016

WHAT EVERY STUDENT IS ABLE TO PERFORM

1) Learn about the product. Do different tours of the product. Identify what stakeholders needs what information at what time. Learn how the project setup looks like

2) Analyze the product from a Quality Attribute and Risk perspective

3) Decide what is most important to test and create test charters

4) Execute the Testing and document it

5) Debrief and report the results to the stakeholders

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So.. What else did they learn?

- Test techniques
- Test planning
- Bug Advocacy and Reporting
- Project contexts

- Test methodologies
- Programming for Testers
- Test Tools
- Internships

THE RESULTS:
THE EDUCATION

- Learning the Test profession can be fun!
- Students can provide (some) value from day one.
- The class could as a whole provide good results
- Lack of experience lowers the understanding of teachings in class.
- Programing was the biggest challenge.
- The Testing community has been very supportive!
- The students are recommending this education to others

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THE RESULTS:
THE FIT FOR THE MARKET

24 out 26 got jobs within the testing profession

EXAMPLES OF MORE (NON SOFTWARE) EXCERCISES

- Testing of a simple web-game full with bugs
- Questioning your mental model when given a problem with only numbers
- Paperplanes

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Some big inspirations for this Education and Tips for Further Learning

- Rapid Software Testing – James Bach and Michael Bolton

- The Heuristic Test Strategy Model – James Bach

- Black Box Software Testing courses – Dr. Cem Kaner

- Everything by Gerald Weinberg (start with "Perfect Software – And other illusions about testing")

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CHALLENGE YOURSELF!

The Crappy Little DataGenerator

http://www.houseoftest.net/en/category/blog/
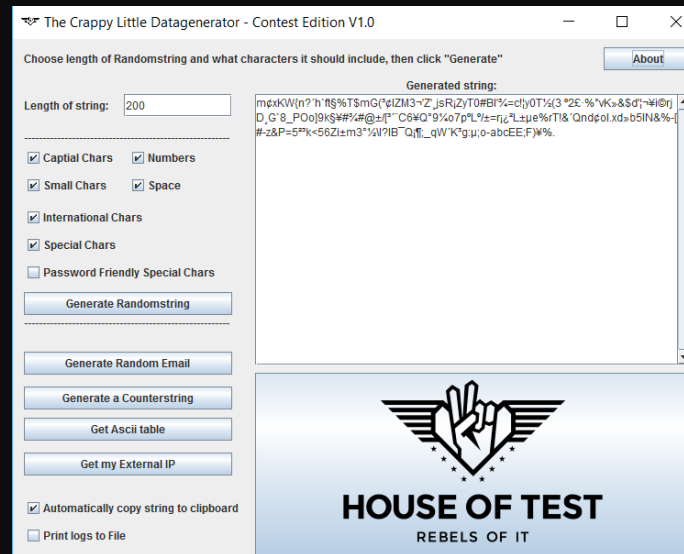
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- Let´s Test Stockholm
- ConTest

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Q&A

Thank you!
And my Acknowledgements:

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The crowd and the TAPOST organizers who invited me, I am deeply honored!

The students for putting in the effort!

To all the people that came for guest lectures! To everyone who supported when doing this education in different ways!

To Erik, Henrik, Maria and Björn who all helped building this education!

To the people in the ISST chat!

HEADLINE

Supporting Text or Picture

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A First Attempt at Testing

Sample Charters:

- To compare how a beginner at excel works with the program compared to someone who is used to the program.

- Write a paragraph of text in three different languages and run through Google Translate and investigate if the original meaning of the text was translated or got lost.

- Test the Swedish shortcuts in Mozilla Firefox

- Learning session about Mozilla Firefox and checking if there are any obvious issues that can bother beginner users.

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Visualizing
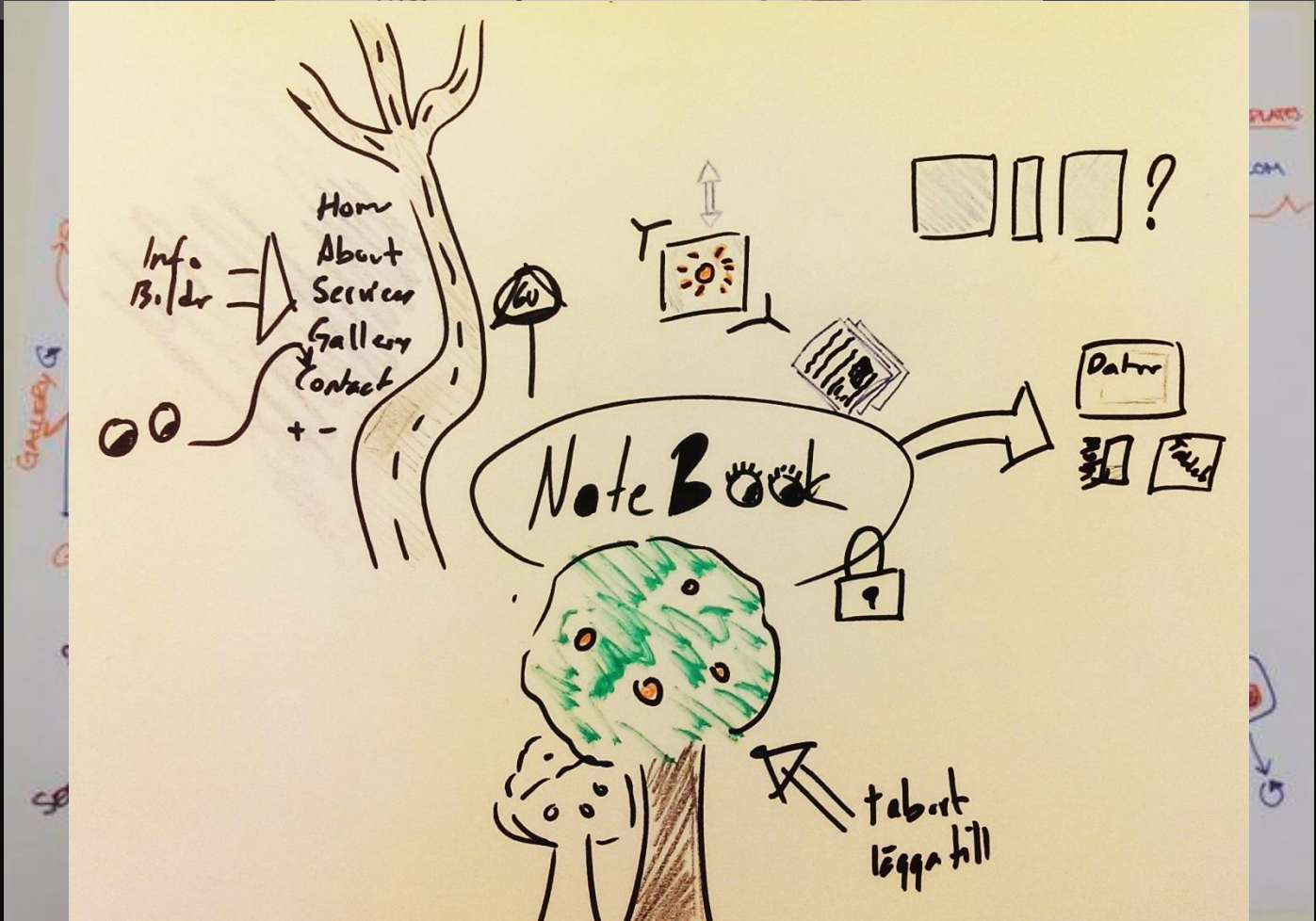
Results from "The usage of a Brick"

Building:
- Build a house
- Crash a window
- Shield yourself from the outside world
- Build a factory that supports the communist regime that oppresses the people

Tools:
- Use as a hammer
- Use for digging

Mathematics:
- Count the holes in the brick
- Count the brick
- Measure the brick/use it as measurement
- Use as weight
- Role-play and pretend the brick is Einstein

Religious:
- Worship the brick as a god
- Write the words of god in the brick
- Create a cult around the brick (Brickthulu, a Cthulu -ripoff)

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The Customer ROUTINE heuristic (1/2)

The Routine to make sure you keep track on how the software fits the customer – By Björn Paulsson

Requirements - What practical requirements do we have on our software to work on customer hardware or software? Are there any other requirements in the customer's context that needs to be considered?

Outlook - How does the future looks for our customer? Can we expect that the customer will require certain updates or changes? Or new features?

Usability - Is the product easy to use for the customer? Does it need to be simplified for the client?

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The Customer ROUTINE heuristic (2/2)

Troubleshooting - If problems occur for the customer, how do we handle them? Do we have a bug reporting system in place? Do we have the customer support that can help?

Improvements - Can the product be improved to fit the customer's needs better? If the customers requires changes to the product, how easy is it to implement them?

Needs - What are the actual customer needs?

Expectations - What is the customer expecting and does that match the actual needs? What they expect and what they need to solve their problem might not always be the same thing.
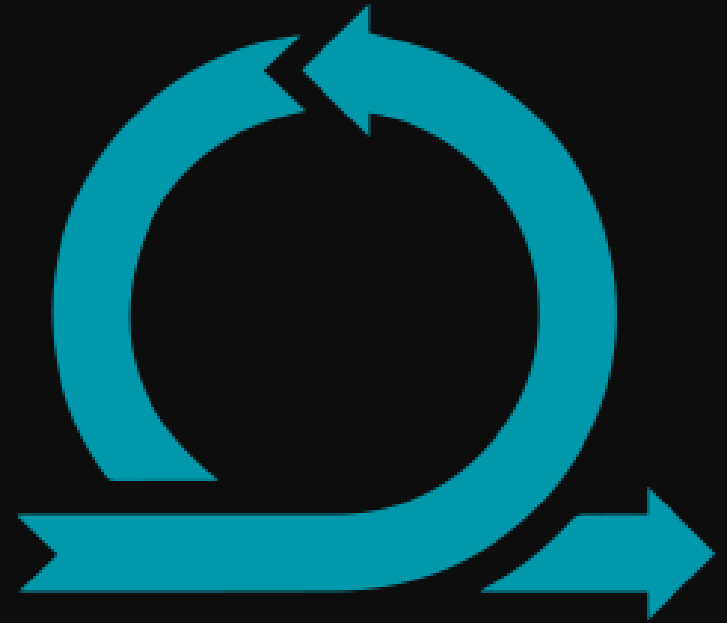
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Constructing Paper Planes

Everyone Failed the Exercise

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Project Contexts

Test Methodologies

The Four schools of Test

Different Test Reports (1/2)

"One (Test procedure 4.7) of the 600 planned test procedures was not executed at all because of lack of time. All the 599 test procedures that were run had passed at the end of the 3 weeks. During the test 83 incidents were found and 83 were solved. The reported incidents were number 107 to number 189."

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Different Test Reports (2/2)

Quality Attribute	Status	Comments
Capability	OK	No functionality blocked
Reliability	WARNING	Can only handle the required number of users during specific circumstances
Usability	WARNING	A lot of minor issues affects the user experience
Security	OK	Passed External audit
Compatibility	NOK	Not compatible with upcoming IOS version
…	…	…

Programming for Testers

Conclusions

- Professional Testers from start.

- Exploratory Testing is very useful for inexperienced testers

- Test niches that can be filled by testers who might be lacking technical expertize.

- A lot of learnings might not make much sense for students until they have work experience.

- 1.5 years is not much time to teach testing on.

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HEADLINE

Supporting Text or Picture