

Testing with an Accent

A Primer for Internationalisation



Paul Carvalho

<http://staqs.com>

 **Tweet** @can_test

STAREAST 2013

Globalisation

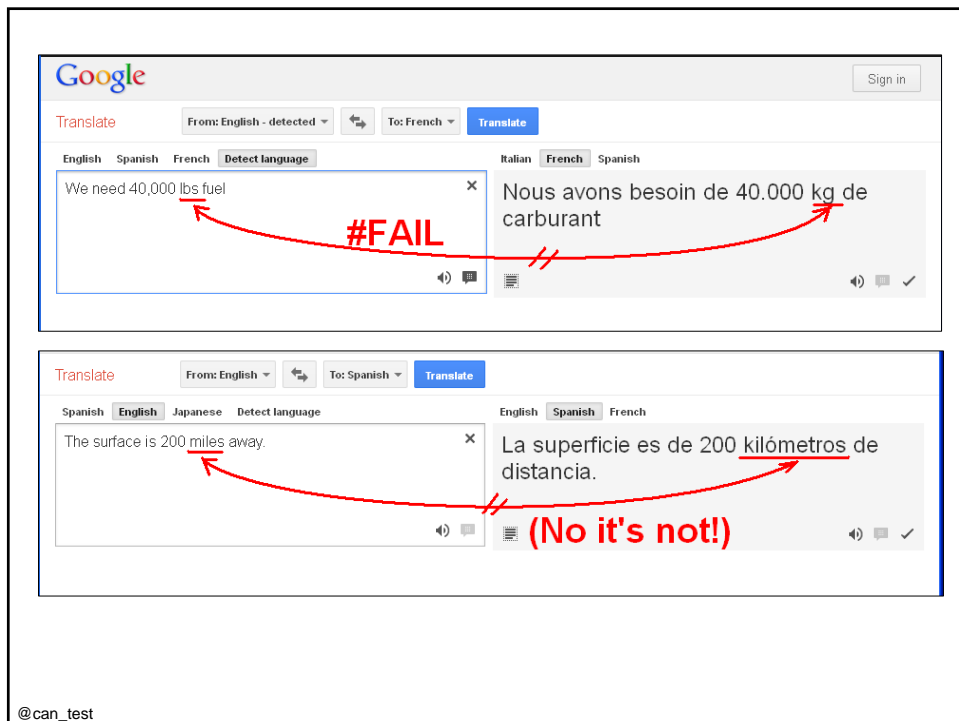
Localisation

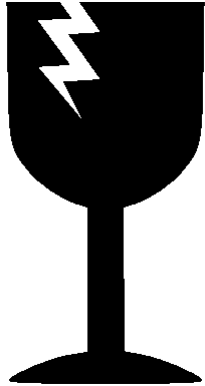
Internationalisation

What does it mean to me?



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Some years ago, workers at an African port didn't recognise this symbol on the boxes.

They thought the contents were broken and threw all the boxes into the sea!

⇒ Don't **assume** pictures or symbols will be interpreted the same across the world.

⇒ Globalization problem

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IKEA UNITED STATES
affordable solutions for better living

home > Children's IKEA > Children's furniture > FARTFULL work bench

Work bench
FARTFULL
\$109.00/ pieces
(price reflects selected options)
website prices may vary from store prices.

- ▶ Storage space for games and accessories under the seat.
- ▶ Mouse pad both for right-handed and for left-handed people.
- ▶ Seat part with handle; castored to be easy to move about.
- ▶ The metal front doubles as a magnetic board.

designer: Lisa Norinder

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Key Questions

- Localisation:
 - Do you know if you are offending someone?
- Globalisation:
 - Do others understand things the same way you do?
- Internationalisation:
 - Does it work?



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A bug is a bug, no matter how small



... or where it comes from

AG

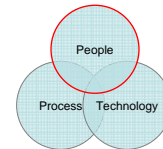
Andy Glover cartoonester.blogspot.com © 2012

The Players: Who Tests i18n?

- Tester, Developer, Product Owner, Tech Writer
- *Anyone* interested in checking that the software:
 - works and makes sense for people in other languages/locations
 - doesn't offend someone in a different language



NOTE: You do NOT need to know another language to be good at this kind of testing!



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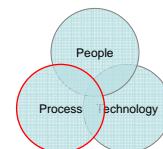
The Context: Definitions

- **Internationalisation** - a.k.a. i18n
 - the process of designing and coding a product so it can perform properly *when it is* modified for use in different languages and locales.
- **Localisation** - a.k.a. L10n
 - the process, *on a properly internationalised base product*, of translating messages and documentation as well as modifying other locale-specific files.

(i.e. the framework, capability)

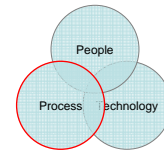
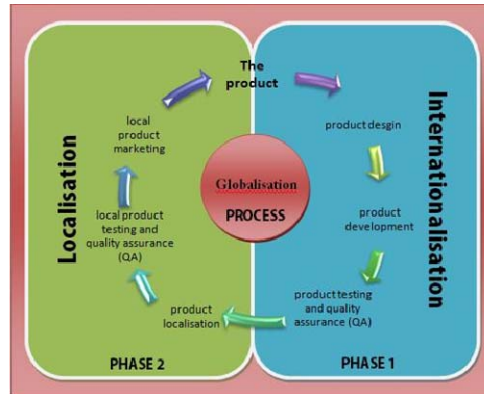
(i.e. the content, or specifics for a particular region)

What does Testing look like here?



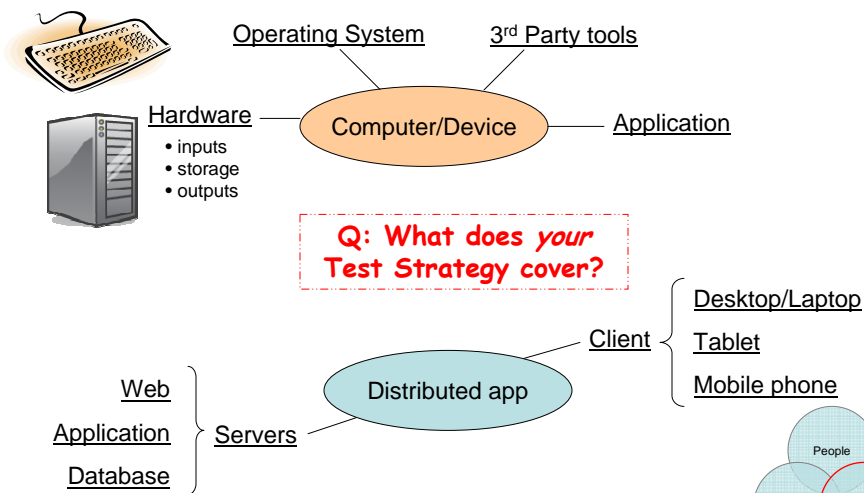
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The Context: Relationships

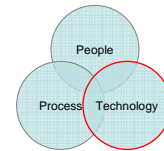


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Systems Analysis



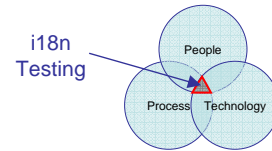
Q: What does your Test Strategy cover?



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i18n Test Strategy Guideline

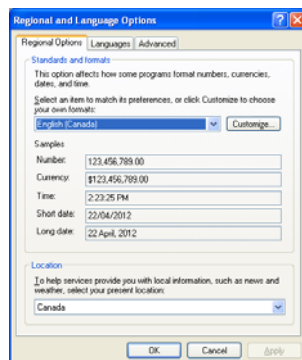
- 1) Research your target audience(s)
- 2) Test UI
- 3) Test Data Inputs
- 4) Test Data Flow
- 5) Check/confirm/validate with the **Locals**
(They don't call it "Localisation" testing for nothing)



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(2) Testing the UI

- Start with the UI - Does it look right?



Changing your "Regional Settings" is a quick way to size up the scope of L10N applied.

(WHAT) Things to look for in App UI include:

- Correct language appears - everywhere!
- Number formatting
- Currency symbols
- Time & Date format; Time Zones
- Buttons, labels, menus correctly wrap long strings

Warning: many things still missed this way!

Tip: Install a different-language OS to discover more differences.

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Sample UI i18n bugs: How many do you see here? (What are your *oracles*?)



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i18n Testing Tip

- Check i18n with a made-up string set
- For example, copy your “strings” file so that your labels, buttons, etc. use different characters
 - Before: “Enter your username”
After: “Le Entér yôür üsérnâmé.
 - Still readable. Identify missing strings quickly.

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ASIDE:


PUBLIC SERVICE ANNOUNCEMENT:

OUR DIFFERENT WAYS OF WRITING DATES AS NUMBERS CAN LEAD TO ONLINE CONFUSION. THAT'S WHY IN 1988 ISO SET A GLOBAL STANDARD NUMERIC DATE FORMAT.

THIS IS **THE** CORRECT WAY TO WRITE NUMERIC DATES:

2013-02-27

THE FOLLOWING FORMATS ARE THEREFORE DISCOURAGED:

02/27/2013 02/27/13 27/02/2013 27/02/13
20130227 2013.02.27 27.02.13 27-02-13
27.2.13 2013. II. 27. 2⁷/₂-13 2013.158904109
MMXIII-II-XXVII MMXIII ^{LVII}/_{CCCLXX} 1330300800
((3+3)×((11+1)-1)×3/3-1/3³) 2013 
10/11011/1101 02/27/20/13 $\begin{matrix} 0 & 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 & \end{matrix}$

@can_test <http://xkcd.com/1179/>

(3) Testing Data Inputs

- Does the system *accept* what you input?
- Testing Tips:
 - use names with accented characters:
 - e.g. Édouard, Jérôme, Željko
 - names with apostrophes: Miles O'Brien
 - double-byte characters: Chinese, Japanese, ...
- Apply these *everywhere*, not just Name fields:
 - file and folder names, company names, other record types
 - usernames, passwords, email addresses
 - Search fields, ...



(4) Testing Data Flow

- Does the system *work with* what you input?
- Does the data correctly:
 - a) save (to file, database) and retrieve? (CRUD)
 - b) display? (in lists, drop-downs, title bars, different fonts, etc.)
 - c) transform? (e.g. capitalisation, etc.)
 - d) sort?
 - e) print?
- Web apps - correctly encode strings (for URL's, etc.)?
- **WARNING:** 3rd Party tools & integrations = Fail Magnets



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(5) Check with Locals

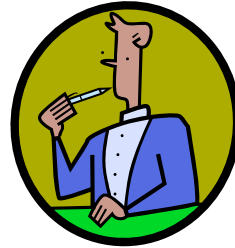
- Sometimes the correct context requires more than just a string translation.
- The Monty Python Heuristic



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Putting it Together

- What are some ways to integrate this into your Testing?
- What do you think?



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Références

Articles:

- “Testing with an Accent”
 - by Paul Carvalho, Better Software, Feb. 2005
- “As a tester do you think globally?”
 - by Karen Johnson, Tea-time with Testers, Jan. 2012
- “Bare Minimum Internationalization”
 - by Rick Scott, StickyMinds.com, Apr. 2012
- “What’s Wrong With Turkey?”
 - by Jeff Atwood, CodingHorror.com, Mar. 2008
- “Translation is UX”
 - by Antoine Lefevre, AListApart.com, Dec. 2012



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Références

Advice from big orgs:

- <http://www.w3.org/International/>
- <http://msdn.microsoft.com/en-us/library/Aa292185>
- http://developers.sun.com/dev/gadc/des_dev/Intl_Testing.html

References:

- http://en.wikipedia.org/wiki/Internationalization_and_localization
- http://en.wikipedia.org/wiki/List_of_Google_domains
- World Currency Symbols: <http://www.xe.com/symbols.php>



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Références

Tools:

- Translators:

- <http://translate.google.com>
- <http://babelfish.yahoo.com>
- Did You Know: MS Word has built-in translator



- Test Data:

- International News pages (check other Google domains)
- Humorous Random Phrase Generator:
<http://www.smartphrase.com/>
- Translations of “*My hovercraft is full of eels*”:
<http://www.omniglot.com/language/phrases/hovercraft.htm>
- International Baby Name lists



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Muchas gracias

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