INTRODUCTION TO USABILITY

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OUTLINE OF THIS TALK

- Usability
- Measuring Usability
- Usability Heuristics

WHAT IS USABILITY?

Usability is like cooking: everybody needs the results, anybody can do it reasonably well with a bit of training, and yet it takes a master to produce a gourmet outcome.

-- Dr. Jakob Nielsen

RELATIONSHIP BETWEEN USABILITY AND UX

- Usability concentrates on goal achievement

- UX is a consequence of presentation, functionality, performance, interactive behaviour, etc.

TYPICAL SOFTWARE PRODUCT CYCLE
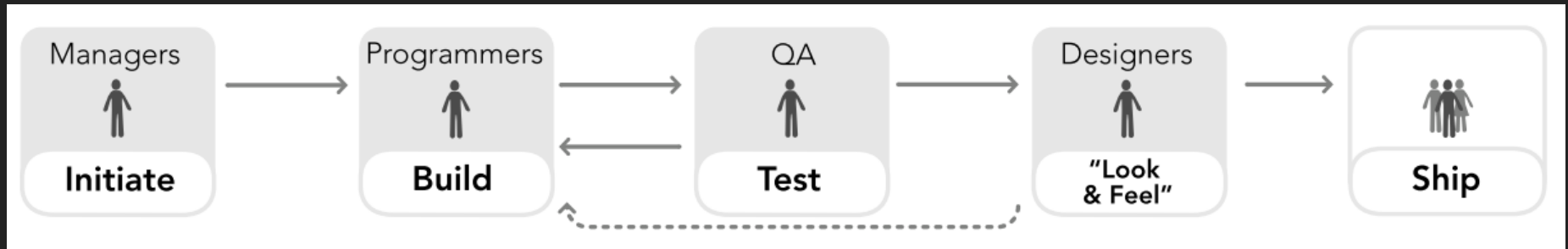
IMPORTANCE OF USABILITY

- Usability makes the user come back to the system

- Users are choosier than ever before

- User-perception can make or break your business

CLUTTER CAN DISTRACT FROM YOUR TRUE PURPOSE

World Yahoos Asia - Australia & NZ - Canada - **Chinese** - Denmark - France
Germany - Italy - Japan - Korea - Norway - Sweden - UK & Ireland
Yahoo! Metros Atlanta - Austin - Boston - Chicago - Dallas / Fort Worth - Los Angeles
Get Local Miami - Minneapolis / St. Paul - New York - S.F. Bay - Seattle - Wash D.C.

Smart Shopping with

How to Suggest a Site - Company Info - Privacy Policy - Contributors - Yahoo! How-To

KEEPING IT SIMPLE
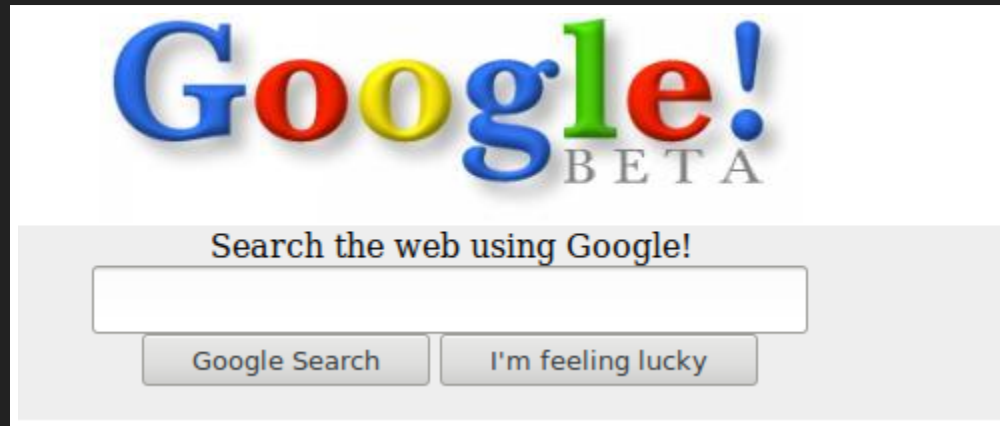
CHARACTERISTICS OF USABILITY

Effective	Completeness and accuracy with which users achieve their goals
Efficient	Speed with which users complete their tasks
Error Tolerant	Ability of an interface to prevent errors or recover from errors

CHARACTERISTICS OF USABILITY - II

Engaging	Is the interface pleasant or satisfying?
Easy	Supports initial learning and continued learning

Strike a balance between all 5, depending on task

BAD ERROR MESSAGES

The COM+ Event System caught an access violation at address 0x00213BC8 within the method SaveCompleted of interface IPersistFile. The method attempted to access address 0x0000000.

OK

BAD ERROR MESSAGES - II

GOOD ERROR MESSAGES

- Use human-readable language

- Give constructive advice on how to fix the problem

- Prevent loss of data, even if temporary or small

- If possible, guess correct action and let user choose from a list

USABILITY TESTING

- User

  - Demographics: Skill-level of user, age, dexterity
  - Number: One, two, group?

- *Tasks*: An actual user's tasks

- *Time*: Time spent on, and with, each user

USABILITY TESTING - II

- *Role Allocation*: How many testers per user?

- *Methods of Recording*: Paper, audio, video, screen-grabs

MEASURING USABILITY

- *Task Time*: Measures efficiency, ease of learning, mental processing time

- *Number of Problems*: Think-aloud and record list of problems.

- *Emotional state of users*: If the user is upset, something is wrong!

MEASURING USABILITY - II

- *User Opinions*: Surveys, questionnaires on a simple scale (both, pre-test and post-test)

- *Expert Opinions*: Usability experts and guidelines

- *Report Analysis*: Categorize above on severity, and areas of focus

DESIGN VALUES FOR USABILITY

Good design of a product will minimize the following types of work:

- *Cognitive*: Comprehension of product behaviour (text, images, structures)

- *Memory*: Recall of behaviour, data locations, control and relationship between objects

- *Physical*: Keystrokes, mouse movements, gestures

COMMON MISTAKES (ON WEBSITES)

- Readability: Four categories of web-safe fonts

  - Serif
  - Sans serif
  - Cursive
  - Monospace

- Blinkenlichten: Just say 'NO' to flash/splash/anything spinning/blinking

- Don't make the user think!

CROSS-BROWSER COMPATIBILITY

- CSS is (still) rendered differently on different browsers

- Use CSS reset

- Use http://browsershots.org/

IN CONCLUSION

Don't make your users think!

RECOMMENDED READING

- Jakob Nielsen's column: http://www.useit.com/alertbox/

- Common web-page mistakes and how to fix them: http://www.webpagemistakes.ca/

- https://uxmag.com/articles/

- *About Face - Interaction Design*. By *Alan Cooper, Robert Reimann, and David Cronin*

BEFORE YOU GO

- The next assignment will be up (this morning)

- Deadline: 2-Nov-2016, 10:00 a.m.

- Testcases for Assignment 1 are up

THAT'S ALL, FOLKS!

Questions? Comments?