

# Topics in Website Testing

[Reading assignment: Chapter 14, pp. 211-227]

# How to test a website

- Easiest way to start is by treating the web site as a black box.
  - Look at a sample website such as [www.apple.com](http://www.apple.com) to get a sense of the scale of such an endeavor.
  - Treat each page as a state with hyperlinks as state transitions.

# Website text

- Web page text should be treated like documentation and tested using the techniques we described previously.
- Check for ...
  - correctness of contact information e.g., phone numbers, addresses
  - correctness of dates and copyright notices
  - title bar text, bookmark text on browser's favorites
  - correctness of the ATL text (i.e., mouse over text)
  - layout issues when browser window is resized

# Website hyperlinks

- Each link should be checked to make sure it jumps to the correct destination or website.
- Ensure that hyperlinks are obvious:
  - E.g., underlined text, mouse pointer changes
- If the link opens an e-mail message, test it
  - Send an e-mail and verify that you get a response.
- Check for *orphan 孤立* pages that are part of the website but cannot be accessed through a hyperlink.
  - Someone forgot to create the link
  - Might be intentional ... Google will find it, though

# Website graphics

- Do all graphics load and display properly?
- Is a graphic missing or incorrectly named?
- Does the website intermix text and graphics?
  - Does the text wrap around the graphics?
  - What happens when the browser window is re-sized?
- Does the page load fast enough?
  - Are there too many graphics?
  - Did you try to test the website on a dialup connection instead of a high-speed LAN?

# Website forms

- Forms are the text boxes, list boxes, and other fields for entering and selecting information on the web page.
- Are the form fields positioned properly?
- Are the fields the correct size?
- Do they accept correct data?
- Do they reject bad data?
- Are optional fields really optional?

QuickTime?and a  
TIFF (Uncompressed) decompressor  
are needed to see this picture.

# Server performance loading and security

- Popular websites can receive millions of hits per day.
  - [www.youtube.com](http://www.youtube.com) hits 100 Million Videos per day
  - Check out <http://www.youtube.com/watch?v=jP26ZYhQktY> for a software testing video!
- Each hit requires a download of data from the website's server to the browser's computer.
- You need to simulate millions of connections and downloads to test a system for performance and loading.
- Security issues include:
  - Denial of service attacks
  - Buffer overflow attacks

# Configuration and compatibility testing

- Hardware platform
  - Mac, PC, PDA, WiFi wristwatch?
- Browser software version
  - Firefox 1.0, IE 6.0, Pocket IE, Netscape 7.2, Safari 2.0.4
- Browser plug-ins
  - To play specific types of audio or video files
- Browser options
  - Security options, ALT text, plug-in, pop ups
- Video resolution and color depth
  - 640x480, 800x600, 1024x768, 1280x1024, 256 colors, 16 colors
- Text size
  - Small fonts, medium fonts, large fonts
- Connection speed
  - DSL, modems of varying speed.



# Usability testing:

## Jacob Nielsen's top 10 mistakes in web design

- Gratuitous use of bleeding-edge technology 技术的不合理使用
- Non-standard link colors
- Outdated information (need website maintenance)
- Overly long download times (less than 10 sec to load)
- Lack of navigation support 无导航
- Orphan pages
- Complex website addresses (URLs)
- Using Frames (just open another window ...)