# 06 – HTML, Accessibility, Usability & Web 2.0

LBSCI 700 | Spring 2019 Queens College, CUNY

06-us.pdf

HTML: Meta tags

Validator

Accessibility

Navigation and Usability

**Usability Studies** 

Social Media

Recap

**Last Things** 

## Meta tags

## Why meta tags?

Getting found (search engines)

Not getting found (crawlers)



#### Meta tags

- Resource type
- Author
- Distribution
- Keyword
- Copyright
- Refresh

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#### Placement within HTML

Top of document

Immediately following <title> element

#### Meta Tag - Code samples

Resource type: (indexing purposes)

```
<meta name="resource-type" content="document">
```

 Description: a word, sentence or brief paragraph to describe the page.

```
<meta name="description" content="a description of your page">
```

 Keywords: Words that are relevant to the page content, separated by commas. May include synonyms and slang.

<meta name="keywords" content="a, list, of, keywords">

#### Meta Tag - Code samples (cont.)

Author

<meta name="author" content="Hege Refsnes">

Copyright

<meta name="copyright" content="copyright statement"</pre>

Refresh: Reloads the page

<meta http-equiv="refresh" content="10; url=homepage.htm"</pre>

## Not getting found – Robot tag

 Blocks both indexing and following of links by a crawler on the specific page:

```
<meta name="robots" content="noindex,nofollow" />
```

 Allows indexing of the page, but instructs the crawler to not crawl links contained within it:

```
<meta name="robots" content="index,nofollow" />
```

 shorthand way of declaring "don't index nor follow links on page":

<meta name="robots" content="none">

## Validator

#### W3C validation

- W3C World Wide Web Consortium https://www.w3.org/
  - Develop and maintain web standards
  - Rule-book
- W3C Validation
  - HTML,
  - CSS

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#### Importance of W3C validation

- Ensure the site works properly on your browser as well as the other major browsers
  - Internet Explorer
  - FireFox
  - Chrome

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- A website that contains many errors can Not displaying properly or consistently
  - Not compatible with all major browsers
  - Not displaying properly on devices of varying sizes like mobile devices
  - Ranks badly in search engines (because they can't read the code)
  - Loads elements slowly
- \* More details @ https://validator.w3.org/docs/why.html

#### Validator

For HTML

http://validator.w3.org/

For CSS / HTML

http://jigsaw.w3.org/css-validator/

## Website Accessibility

#### **Equal Access to Materials**

- School libraries
- Academic libraries
- Special libraries
- Public libraries

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#### **Access Needed**

- Who calls the library?
- Who comes in?
- Who uses the online public access catalog (OPAC)?
- Who uses the electronic materials?

#### **Accessibility Issues**

- Mobility limitations
- Visual limitations
- Hearing limitations

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#### Accessibility

- Keep it clean and uncluttered
- Choose the right colors
- Choose easy-to-read text
- Make sure headings have proper heading tags (H1, H2, etc.) for navigation purposes.
- For images, use alt and id attributes within the image tags. Screen readers cannot interpret icons or visual images but can read the text within the alt and id attributes.
- Provide an HTML version of a PDF document. Older screen readers cannot read PDF documents.
- Web accessibility evaluation tool http://wave.webaim.org/

## Accessibility

W3C Web Content Accessibility Guidelines

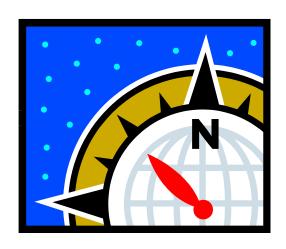
http://www.w3.org/TR/WCAG10/

Developing Accessible Web Content

https://www.section508.gov/

## Navigation and Usability

## Navigation



#### **Navigation Elements**

- Menus
  - Words
  - Semantics
- Links
  - URLs
  - Words/Semantics
- Sections
- Site Search

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## **Navigation Issues**

• Where am I?

• Where do I go?



## **Navigation - Problems**

Return to Homepage

New Browser window

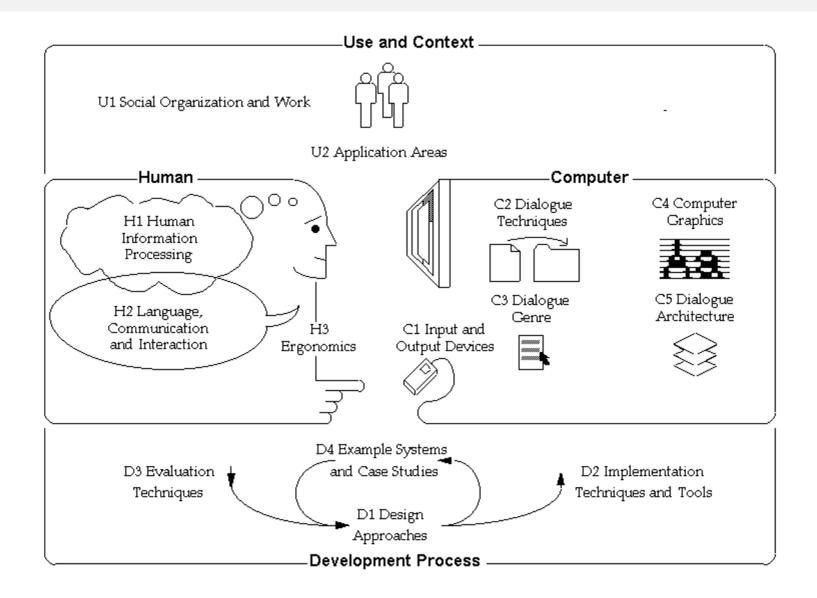
• Others?



## **Usability Studies**

## Looking at websites from the user perspective

#### **HCI** in Action



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## **Usability Analysis and HCI**

• HCI ≠ Usability

#### **Usability**

- Why the user perspective?
- What's the use for the developer?



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## Usability

#### **5 Common Elements:**

- Learnability
- Efficiency
- Memorability
- Errors

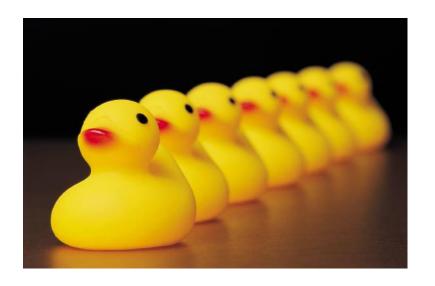
Satisfaction



## Usability

#### Improvement Process:

- Representative users (#?)
- Representative tasks
- Data Collection
  - Observe & Log
  - Think aloud
  - Questionnaire
- Data Analysis



#### **Usability Testing Cycle**

- Test existing design (if there is one)
- "Paper" Prototypes
- Multiple iterations testing
- Established usability guidelines and web standards
- Final design retest
- Implement
- Retest it in use

----- Cyclical -----



## **IRB Basics**

#### IRB = Institutional Review Board

- Reviewing what?
- Research protocols, to make sure they are compliant in the safe and ethical use of humans as subjects in research, public service, and training programs.
- If you use humans as participants in your research, as a representative of QC@CUNY you need to apply for IRB approval of your research protocol:
  - BEFORE conducting the research
  - If you intend to publish your results (in a journal, etc.).

#### Don't bypass the IRB!



#### Why do we need an IRB?

Precipitating Events and Outcomes

- The Nazi Experiments
- Nuremberg Code 1947

- Tuskegee Syphilis Study
- National Commission for the Protection of Human Subjects of Biomedical & Behavioral Research 1974

#### **Outcomes of Basic Principles**

#### Respect for persons

- Implementation of informed consent process
- Development of rules for guarding privacy and confidentiality

#### Beneficence

- Requirement of adequately designed research
- Requirement of trained and competent investigators/researchers
- Requirement of favorable risk-benefit ratio

#### Justice

- Equitable selection of subjects
- Equitable distribution of risks and benefits

#### **IRB Provides Protection**

For participants

For you, the researcher

For the university

#### So what do I do?

Visit CUNY Office of Sponsored Programs IRB page at

https://www.qc.cuny.edu/about/administration/Provost/ORC/Pages/IRBOverview.aspx



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## **IRB Training**

- You must complete online IRB training and successfully pass the test at the end of the training. Certification must be renewed every 2 years.
  - CITI (Collaborative Institutional Training Initiative)
  - NIH (National Institutes of Health)

## Three Types of Review

- Exempt Your protocol meets exemption requirements. The IRB determines your protocol does not constitute working with human subjects.
- Expedited Faster review, by one IRB member. Protocol presents no more than minimal risk to participants.
  - Protocols under expedited review cannot be denied in that category. They can be returned for revisions or elevated to full review status.
- *Full* Full review by entire IRB board. Protocol involves vulnerable populations or more than minimal risk to participants.

## Forms, Forms, and More Forms

- E-protocol or email paper forms.
- Depending on the type of research you are planning to do, different forms may need to be submitted.
- For ALL protocols:
  - Request for approval
  - Personnel list
  - Date of IRB training certification
  - Informed consent documents
  - Research protocol
  - Signature assurance department head must sign off

## Your Website Usability Study

- Why are you doing this study?
  - "Because we have to" is not an answer ....
- What are you going to do?
  - Who is the target audience? This will impact who will be selected as participants.
  - How will you recruit participants?
  - Informed consent issues.
  - Vulnerable populations?
  - What will you have your participants do?
  - What data will you collect?
  - How will you analyze data?
  - How will you store data?
  - How will you report results?

## Now you should be able to:

- Understand the reason, history, and function of an IRB.
- Understand the importance of research protocol planning.
- Be able to outline the protocol for your website usability study in accordance with IRB regulations.

## Social media



#### Web 2.0

- Second generation of the World Wide Web, especially the movement away from static web pages to dynamic and shareable content and social networking.
- Web applications that facilitate interactive information sharing, interoperability, user-centered design, and collaboration on the World Wide Web.
- For a more detailed history on the evolution of the web
  - http://www.youtube.com/watch?v=6gmP4nk0EOE

#### Web 2.0

- Content, Conversation, Communication
- User-Generated Content
- Users Want to:
  - Create and Co-Create Content
  - Edit Content
  - Rate Content
  - Comment on Content
  - Discuss Content
  - Tag and Organize Content
  - Mash Content with other Content
  - Personalize Content
  - Share Content

#### **Tools**

- Social Networking Sites
- Micro-blogging
- Video Sharing
- Photo Sharing
- Blogs
- Podcasts and Vodcasts
- Wikis
- RSS Feeds

















#### Power of Social Media



http://www.dailyexcelsior.com/the-power-of-social-media/

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### Questions to think about...

- What is your plan for using social media?
- How long will it be active?
- Will it be used for one site/activity or will you use a general account for all activities?
- How will you manage account(s)?
- Allow only one staff member to use or share with other co-workers
- Access on mobile devices for immediate alerts?
- How will you handle comments?
- Filter all comments? Disable comments? Allow anyone to comment?
- How frequently will you check and/or post content?
- Notifications on what content? Delivered where/how?
- Privacy concerns?

# Recap

## Recap

- HTML
- Accessibility
- Usability
- Social media

## **Last Things**

### **About Midterm Exam**

- ➤ On campus
  - -- Options
  - -- Coding
  - -- Debugging/Modification

> Practice

## ToDo

- ➤ Start homework
  - -- Look for email
  - -- Check Bb weekly folder

Note any questions from reading and homework

➤ Class 7 on March18 (online)