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0.1 Assessment

Participation and Consultation (Weekly from Week 2 to Week 13):

- Group discussions on that week's topic
- Design activities for website project
- Formative submission of Design Report: Part A
- General participation in practicals/tutorials

During Week 10 Practical:

- Series of tasks to test your knowledge of HTML and CSS
- Everyone will be asked to complete the same type of task

Due Exam Week 1:

- Design Report describing and justifying design of website
- Website Implementation (HTML/CSS/jQuery/JavaScript) according to brief

Web 4.0: mobile web

Web 4.0 & 5.0: connections and serendipity

Chapter 1

Lecture Notes

1.1 History of the Web

1.1.1 Origins

- Originated in 1960s – ARPANet
- TCP/IP introduced 1982
- DNS developed in 1984
- Internet was commercialized in 1995
When NSFNET was decommissioned

1.1.2 WWW

- System of interlinked hypertext documents accessed via Internet
- Created by Tim Berners-Lee in 1990 while with CERN
HTTP, HTML, web browser, web server
WorldWideWeb released 1991 publicly
- Mosaic (web browser and Gopher client) 1993
- W3C World Wide Web Consortium founded 1994
- Commercialization of WWW late 90s

1.1.3 WaSP

- “The Web Standards Project” setup in 1998 by a group of professional web devs and designers
- Reforming the W3C recommendations as standards
- Push to standardize approaches and implementations across all browsers

1.1.4 Evolution of WWW

Web 1.0: static (information retrieval)

Web 2.0: collaborative (sharing and production)

Web 3.0: semantic and personal (meaningful web)

1.2 Web Design

1.2.1 What Is It?

- Process of creating the ‘front-end’ of a web-site
- What the users sees and interacts with
- Bringing media together into a cohesive whole
- Creating a good user experience

1.2.2 Who’s Involved

- Client
- Users (indirectly)
- Web designer
- Web developer
- Content editor

1.2.3 What’s Involved

Pre-planning and planning

- Client goals, feature requests, target audience
- Design documentation
- Content gathering/definition

User analysis

- Who are the users?
- What will they want/need to do on the site?
- Why are they there?
- Is your site:
 - Usable
 - Useful
 - Efficient
 - Memorable
 - Enjoyable
 - Aesthetically Pleasing
 - Fun
 - Safe

Information architecture

- How will content be structured on the site?
- How will that structure be represented to the user?

Navigation and interaction design

- How will people move around?
- How will they know where they are?
- What will they be able to do? And how?

Aesthetic and visual design

- What will it look like?
- Typography, color, layout
- How are elements arranged on the page?
- How does it fit with and extend the clients brand?

Prototyping

- Low/high fidelity
- Represent aspects of the site
- Technological or design based

Evaluation

- User testing
- Performance testing
- Improve before going live

Accessibility design

- Standards to ensure equal access
- Structural, semantic HTML
- Allow for different modes of content access

Trust, personalization and globalization

- Engender trust in your site
- Build in content personalization/contextualize
- Going global and local at the same time

Note 1: What makes a good website

- Site purpose and function is clear to the user
- Easy to navigate and use
- Content is credible, original, useful and timely
- Multimedia, where used, is appropriate
- Visual design is consistent, appropriate and well organized
- Loads quickly and is responsive to user interaction

1.3 Stakeholders

Customers == users! There are other users too:

- Internal stakeholders
Customer service, sales, etc
- External stakeholders
Suppliers, couriers, etc

1.3.1 User Centred Design (UCD)

“Users just aren’t that into you. It’s not personal. It’s business. Unless what you’re writing...

- solves their problem
- provides useful information
- entertains them
- makes them feel like they rule

... it’s irrational to expect users to care about it.”

From Users Don’t Care About You by Jeff Atwood

1.3.2 Stakeholder Levels

Primary (key users): Actively uses the site

Secondary: Served by the site

Auxiliary: Impacted by the site

1.3.3 Understand the User

- Basic demographics
 - Age (elderly, small children, generational styling)
 - Gender (masculine, feminine, gender-neutral)
 - Where they live and work
 - Physical/intellectual impairments
 - Visual/motor impairment
 - Colour-blindness, dyslexia
 - Don’t get caught in the trap of creating user groups solely from demographics
- Social/cultural characteristics
- Relationship to business
- Goals of use
- Context of use
- Tools and preferences

1.3.4 How to get Information

- **Interviews**
One-on-one, clear agenda and questions
- **Focus Groups**
Moderated group discussion
Invited actual and/or intended users
- **Observation/Contextual**
Visit users in situational, especially useful for unique contexts

Watch as they use, think-aloud, recall through video

- **Questionnaires**

- User Tasks

- Intentions

- Impressions (via Likert Scale - strongly agree/disagree)

- **Card Sorting**

- For content-based or complex sites

- User understanding and grouping of content

- **Usability Testing**

- Observation - human and digital

- Users perform specific tasks on website/application

- Alphabetical
- Chronological
- Geographical

- **Ambiguous** organisational schemes: Reflects nature of language (imprecise)

- Topical
- Task-oriented
- User-specific
- Metaphor-driven

Hybrid Schemes

- Combines multiple organisational schemes
- Unless the schemes are physically separated, confusion will result
- They allow for multiple entry points to the content

1.3.5 Core of a Persona

Precise description of a *typical user*:

- Distillation of user group characteristics
- Derived of patterns/commonalities in your data
- May have more than one *typical user*

A persona describes:

- What motivates the user
- Why they are really using your website
- What they are really trying to accomplish

Elements of a Persona

- Name
- Photo
- Tagline
- Background - Demographics, Skill Level
- Narrative
- Attitudes (as related to your site)
- Behaviours and Tasks (as related to your site)
- Goals
- Frustrations and Pain Points
- Scenarios

1.4 Planning and CSS

1.4.1 Determining Content

- Make a list of necessary content (client)
- Prioritise the information (user)

1.4.2 Organisational Schemes

- **Exact** organisational schemes: Great for known item searching

1.4.3 Organisational Structures

- Hierarchy
- Hypertext
- Database

Scheme vs Structure

- A **scheme** groups similar things together
- A **structure** shows how those groups are related

1.4.4 Card Sorting

Step 1

Analyse documents for:

- Objects (noun)
- Actions (verb)
- To identify content and tasks for users on website

Step 2

- Identify the set of keywords/topics to be categorised
- Write each keyword/topic on an index card/post-it note

Step 3

Can be done:

- In-person with an observer
User thinks aloud as they categorise (gives insight into their thought process)

- In-person without an observer
Participant works along (can interview after if needed)

Open Card Sort

- Users **organise** cards into piles (that make sense to them)
- Users **name** each group (in a way that accurately describes the content)
- You learn how users group content and what terms/labels they use

Closed Card Sort

- Provide users with **pre-defined** categories
- Users **place** cards into a category (that makes most sense to them)
- Learn how users relate content to categories

1.5 Navigation Systems

1.5.1 Wayfinding

“How we navigate through complex physical spaces” - Kevin Lynch: The Image of the City (1960)

Note 2: 4 Core Components of Wayfinding

- Orientation
- Route decisions
- Mental mapping
- Closure

Note 3: 5 Common Elements of Wayfinding

- Paths
- Edges
- Districts
- Nodes
- Landmarks

1.5.2 Types of Navigation

Primary Navigation

Main header menu

Secondary Navigation

Some sub heading under the main menu

Supplementary Navigation

Navigation on the side (similar to sort by category)

Local Navigation

Navigation of the headings within the current page

Breadcrumbs

Provides a hierarchy view of the current page location

Utility Navigation

Extra menus and systems hidden away but provided commonly through icons

Footer Navigation

Stuff at the bottom of the page

Global/Universal Navigation

The whole header banner, included could be:

- Primary Navigation
- Secondary Navigation
- Utility Navigation

Note 4: What Not To Do!

Mystery Meat Navigation

- A visually attractive but inefficient or confusing user interface
- Obscures navigation
- Forcing user to explore (could be excused)

Surprise Dropdowns

- Unclear when dropdowns are available
- Always indicate that there is more hidden information

Note 5: Good Practice Standards

- Use familiar names for links
- Clearly distinguish between different types of navigation
- Use common positioning

1.6 HTML Sectioning and Layout

1.6.1 HTML Sectioning Elements

section:

article:

aside:

nav:

header:

footer:

1.7 Visual Organisation

1.7.1 Good Design

- About the relationship between elements
- Creating a balance between them
- Is timeless (outlasts the fads)
- Has a lasting impact on user
- Users are pleased by it, but drawn to the content (doesn't get in the way)
- Users are able to move easily via the navigation
- Creates a cohesive whole

1.7.2 Anatomy of a Webpage

- Containing block
- Logo/identity/banner
- Navigation – global, secondary
- Content – global, specific to page
- White space

1.7.3 Layout Principles

Proximity

- People perceive items that are located together as being related
- Related content should be placed closer together
- Unrelated content should be clearly separated
- Separate content with white space (empty/negative space)

Alignment and Positioning

- Concerned with where elements are on a page
- Information is easier to digest if in alignment

- Positioning elements on a page implies hierarchy/flow

Note 6: Balance

- Elements on the page have “weight”
- Similar to concept of physical balance
- Symmetrical
- Asymmetrical

Note 7: Patterns

- Common positions for certain elements
- Branding, different types of navigation, calls to action
- Across websites
- Meet user expectations

Emphasis and Contrast

Emphasis to:

- Draw attention to items on the page
- Reinforce hierarchy
- Use contrast to differentiate elements

Contrast is:

- Degree of difference between elements
- Very different == high contrast
- Not very different == low contrast

Consistency

Uniformity and consistency:

- In layout of elements
- In appearance of elements
- Within and across pages
- (Doesn't mean you can't have variety)

Each page should appear to belong to the website

1.7.4 Wireframes

- Features visual organisation of page anatomy
- Usually black and white, sketched appearance, generic
- Good for getting feedback from users/clients
- It's a technical document!

1.8 Prototyping

1.8.1 Evaluation Types

Formative: Before the release

Summative: After completion/the release

1.8.2 When to Evaluate

Early: From the very start of the project

Often: And as often as is practical

1.8.3 What to Evaluate

- User Experience
- Usability
- Content
- Functionality
- Requirements

1.8.4 Who Should Evaluate

Experts: Domain, usability, design/dev team

Users: Experts are not like your users

1.8.5 Forms of User Testing

- Moderated vs unmoderated
- Scripted vs unscripted
- Formal vs informal
- And the use of prototypes!

1.8.6 What Are Prototypes in Web Design?

Revolutionary Prototypes: Prototype used briefly then discarded

Evolutionary Prototypes: The prototype eventually becomes the product

1.8.7 Prototype Resolution

Low Fidelity Prototypes

Low level of detail:

- Interactive wireframe
- Paper-based prototypes

Deliberately rough to quickly test out specific ideas

High Fidelity Prototypes

High level of detail in interface, functionality and task flow. Usually created in final product medium, such as :

- HTML/CSS/JS
- Mobile app
- Final materials

1.8.8 Dimensions of Fidelity

- Visual fidelity
- Functional fidelity
- Content fidelity

1.8.9 How are Paper Prototypes Used?

External stakeholders: Clients and Users

Internal stakeholders: Design/dev team, manager, sales

1.8.10 Future Design Activities

Paper Prototyping: Low fidelity functional prototype

Aesthetics User Testing: Low fidelity aesthetic prototype

Hi-Fi User Testing: High fidelity aesthetic and functional prototype