



Dynamic Websites

Topic 12:

Evaluating Websites

Scope and Coverage

This topic will cover:

- Evaluation of the dynamic website in terms of:
 - User satisfaction;
 - Suitability of web application;
 - Business benefit of the web site/services;
 - Accessibility support.

Learning Outcomes

By the end of this topic students will be able to:

- Reflect on the use of web tools and techniques that have been used for a specific purpose;
- Reflect on the functionality of the website;
- Reflect on the web service solutions;
- Test for user satisfaction;
- Reflect on the business benefits of the web site/services;
- Understand the issues of accessibility support.

Introduction

- Having spent a number of lectures looking at how you can construct a dynamic website, we are now going to discuss how to evaluate them.
 - Having created a web page, we must be able to say whether or not it is of suitable quality.
- This is the process with several parts.
 - Ensuring technical correctness (Topic 11);
 - Ensuring standard compliance (Topic 11);
 - Ensuring user and business satisfaction.

User Satisfaction

- The third pillar of evaluating a website is to make sure it meets the needs of users.
 - A website may be perfectly technically adequate and do what it is supposed to.
- This in turn is broken into two parts:
 - Ensuring that it does what users needs
 - Ensuring that it is accessible to users.
- Accessing both of these should be an ongoing part of your development.

User Centred Design - 1

- There is a reliability modern design strategy that is called “User Centred Design”.
- Consulting users at each major stage of development ensures several things:
 - Users get a chance to reflect on changes and see progress
 - Developers get to evaluate the effectiveness of their applications on a regular basis
 - Changes can be made least costly.

User Centred Design - 2

- Evaluating user satisfaction is usually done according to a set of list criteria.
 - Though you should permit users to wander from these to express their views.
- These criteria focus not just on the aesthetics, but also on the ***workflow***.
 - Usually, “how many clicks does it take to get something done”
- The first few minutes of a user’s interaction are usually important.

First Few Minutes - 1

- First impressions are important on a website.
 - Users read less than you might expect.
 - Use text that be easily visually scanned.
 - Users often do not scroll down through a long webpage.
- Unless your web application is **bespoke**, you are going to need to design your web page to grab their attention right away.
 - It should have a clean design, with obvious **action points** clearly visible.

First Few Minutes - 2

- Ajax greatly reduces the need for web navigation as such.
 - Much of the navigation can be hidden behind asynchronous server communications.
- Nonetheless, it is important to ensure an easily understood structure of pages, and provide memory aids.
 - Such as breadcrumbs.
- Common elements of web pages should be where people **expect** them to be.

Functionality

- Your web page should be assessed on its functionality in several ways:
 - Robustness of the site;
 - Responsiveness of the site;
 - Clicks on completion;
 - Auto-complete where appropriate;
 - Low cost of mistakes;
 - Confirmation of actions.

User Familiarity

- When a webpage remembers its users, it is more highly valued than one that ignores users between sessions.
 - Be wary of requiring registration though.
- Some users find this behaviour off-putting.
 - Older users in particular will often have privacy concerns about their information being stored
 - Make it opt-in.
 - Make your privacy policy available and ***understandable***.

Evaluation - 1

- User testing will help you address of these issues.
 - They will tell you when things are not as they should be.
- This becomes much harder when you do not have specific users that you can recruit.
 - This is usually the case when designing a web page for yourself.
- You do not need expensive equipment or huge numbers of users to do simple testing.

Evaluation - 2

- There is a structured process that can be followed to employ user evaluation of a website.
 - Identify representative users
 - The people you test should reflect the makeup of the intended audience as far as possible.
 - Recruit users from that group.
 - Experts suggest about 2- people to get rigorous numbers.
 - Five users can be adequate for most purposes.
 - Choose where the testing is to be conducted.
 - Conduct the testing.

Evaluation - 3

- User feeling can be assessed using various techniques:
 - Performance measures;
 - Thinking about protocol;
 - Coaching methods;
 - Questionnaires.
- You can also outsource much of the work to accessibility experts who can do more substantial testing on a more rigorous basis.

Interpreting Feedback

- Having gathered user feedback, it is important that you interpret the results correctly.
- Some issues can be fixed right away:
 - Typos
 - Broken links
 - Confusing instructions
- Some will require more substantial restructuring.
 - This will require testing in itself to make sure it fixes the problems and di not introduce any new issues. This is known as ***regression testing***.

Business Benefit

- As well as meeting user needs it is essential that the system meets its original purpose.
 - What is the purpose of the website?
 - What are the business needs?
 - How well does the website meet the scenario?
 - How well does the website perform?
 - How well does the website function?
 - Are there other web services that would benefit the website?
 - How is this website going to improve traffic/sales for the business?

Assessability - 1

- The final topic of this lecture is ***accessibility*** – the degree to which our web pages can be used by people with physical or mental impairments.
- Many of the people who use computers have difficulties that make the experience more challenging than for others.
 - And everyone may find themselves subject to temporary impairments from time to time that impact on their ability to use computers and web pages.

Accessibility - 2

- Accessibility should be considered as a non-negotiable deliverable of any web application you develop.
 - In many countries, it is actually illegal to deploy websites with poor accessibility.
- A full study of the implications of accessibility is beyond the scope of this module.
 - But we will talk about some of the more obvious problems that are associated with web-based applications.

Visual Impairments - 1

- Those who have significant visual impairment (partially or fully blind) will find visual displays difficult or impossible to interpret.
 - Most often this is compensated for by screen readers or magnifiers.
- The presentation code that we provide should provide the necessary assistance for these users.
 - Mark-up text with the *lang* attribute
 - Provide alternative text for images
 - Descriptive text for links.

Visual Impairments - 2

- To experience a webpage as a blind user does, try the screen reader simulator at:
 - <http://webaim.org/simulations/screenreader>
- Another significant visual impairment is colour blindness.
 - This is something that should be taken into account when choosing colour schemes.
 - A simulator exists for colour blindness:
 - <http://www.vischeck.com/>

Mobility Difficulties

- Mobility difficulties are most often compensated for by modified or specialised equipment:
 - Specifically designed keyboards
 - Mouth sticks
- Here, our obligation for support is primarily on simplifying our interfaces to reduce the burden of interaction.
 - Do not require text to be typed if it can be supplied.
 - Group frequently accessed interaction elements together.

Hearing impairments

- As websites become more focused around multimedia, hearing impairments are becoming more of an interaction issue.
 - We can resolve this to a degree through the use of captioning.
- The primary thing we must avoid to create accessible websites is having important information that is encoded only as an audio cue.
 - Warnings or alerts, for example.

Other considerations

- User experience – big screens, tablets, mobile devices
- User journey including customer profiling
- Testing frameworks

Conclusion

- Building a web application is only one step for a complex process.
 - Having built it, we must ensure that it actually works and is effective.
- We assess this on three criterion:
 - Technical correctness
 - Standards compliance
 - User satisfaction
- This is best done on an iterative process.

Terminology

- *User centred design* - A design method whereby the user is consulted at each stage of the development process.
- *Accessible* - The degree to which our web applications can be used by individuals regardless of physical or cognitive impairments
- *Standards compliance* - The degree to which our web application correctly implements fixed standards.

References

- Webaim.org, 2017. [online] Available at: <http://webaim.org/simulations/screenreader>
- Vischeck.com, 2017. [online] Available at: <http://www.vischeck.com/>



Awarding Great British Qualifications

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Any Questions?