

DEVELOPING A WEBSITE



ADDITIONAL RESOURCES

Website design and development is an exciting, highly creative industry that continues to grow at a rapid rate. This interview-led program looks at the key considerations involved when developing a website. It looks at: internet basics; planning a website; designing and constructing a website; and website testing. Interviewed for the program include leading website development experts Karl Ervine, IT lecturer at Victoria University, David Graves, Creative director of GWS Media and John Anderton, CEO of Butterfly Internet. Ideal for senior secondary and TAFE in the fields of information technology, graphic design and business, the program provides great advice and tips on how to build a well functioning, user-friendly and attractive website.

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For Teachers

Introduction

Building a website is an informative look at how to develop high-quality websites suitable for modern organisations. Starting with Internet basics and tools, the program details the essential planning processes, through to the design, construction and finally the testing of websites. Web development experts provide unique industry based perspectives on how to effectively build a website for the ultimate user experience.

Timeline

00:00:00	Internet basics
00:05:25	Planning a website
00:11:08	Designing & constructing a website
00:15:26	Testing a website
00:19:41	Credits
00:20:15	End program

Related Titles

ICT in Organisations
IT Networks
ICT Project Management

Recommended Resources

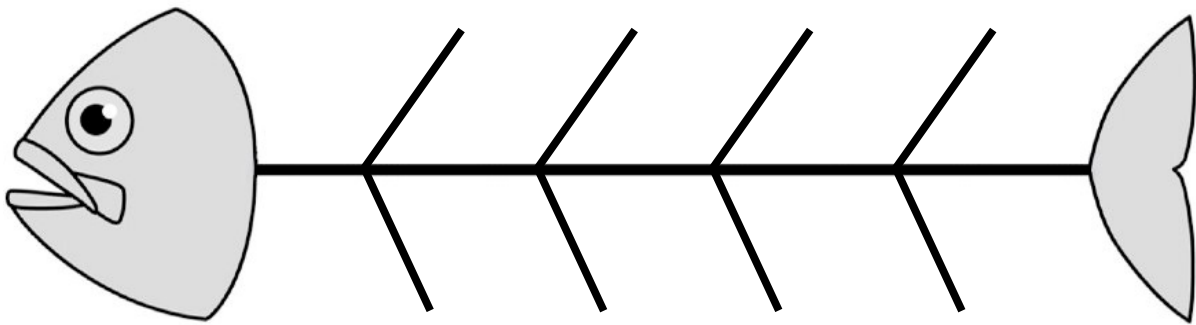
- http://en.wikipedia.org/wiki/Main_Page
- <http://www.smashingmagazine.com/2011/06/09/a-comprehensive-website-planning-guide/>
- <http://webdesignledger.com/inspiration/18-great-examples-of-sketched-ui-wireframes-and-mockups>
- http://webdesign.about.com/od/strategy/qt/plan_site_map.htm
- <http://www.roi.com.au/web-design/top-10-rules-of-best-practice-website-design/>

Student Worksheet

Initiate Prior Learning

1. Analysis: Fishbone Diagram

In small groups complete a fish bone diagram on factors which should be considered in the development of a good website.



Developing a Website

2. Research Good Website Design

Individually complete a Google search on what makes a good website. Create a top 5 list of what makes a good website? Compare your list in a small group.

No	Description
1	
2	
3	
4	
5	

3. Guest Speaker

Organise a local web developer to visit the class or utilise your connected classroom equipment to hold a video conference. Prepare questions for the web developer prior to the visit, and in groups organise who will ask what question.

Developing a Website

4. Class Debate

In the UK in 1995 a new era of accessibility for disabled people began. The DDA (Disability Discrimination Act) was passed, stating that:

It's unlawful for a service provider to discriminate against a disabled person by refusing to provide any service that it provides to members of the public.

A website is regarded as a service and the RNIB (Royal National Institute for the Blind) and DRC (Disability Rights Commission) have been quick to apply pressure on organisations to ensure they act in accordance of this law. . Indeed, the DRC has now published a report on its formal investigation into 1000 websites.

Students are to break into two groups, the positives and negatives. Each member of the group is to help develop arguments either supporting or not supporting the introduction of the law. Each group will take turns voicing their arguments and debate the topic.

5. Content Management Systems Research

Complete research into Content Management Systems and complete a short report on what they do, how they are used and their advantages and disadvantages. Provide examples of Content Management Systems currently available to consumers.

Active Viewing Guide

Internet basics

1. Explain how a Domain Naming System (DNS) works?

2. IP addresses are numerical labels that are unique to each computer, much like a mobile phone number. True or False

3. What is a URL? Give an example to support your answer.

4. What are the main functions of an Internet Service Provider (ISP)?

Developing a Website

5. Link the following Internet Tools/Languages to the appropriate explanation by drawing a line between each.

Browsers

The underlying code for which pages are constructed.

Search engines

Used to make websites more interactive and interesting.

HTML

Used to retrieve, display and navigate information resources on the world wide web.

Java Script

Used to search for information on the World Wide Web.

6. Database Driven Websites are now a fundamental part of the World Wide Web. Describe how they work and why they are important?

7. What is FTP used for in web design?

Developing a Website

Planning a website

8. According to John Anderton what 4 points need to be considered when planning a website?

9. What are some of the additional functionalities that a client might request for their website? Name 3 types.

10. Contrast the difference between open and closed websites?

11. Accessibility is an important aspect on any website. Some users might have audible or visual disability issues. Outline a number of measures which could be taken to insure that the website is accessible to individuals with these disabilities?

Developing a Website

12. Describe the three steps in the planning process for a website.

Designing and constructing a website

13. Outline the three main website structures?

14. Plugins are an important aspect to any modern website. List 3 plugins which a client may request for their website?

Developing a Website

15. In the table below list 2 of the advantages and 2 disadvantages of using off the shelf website packages.

Advantages	Disadvantages
1.	1.
2.	2.

Testing the website

16. Discuss why testing a website is so important.

Extension Activities

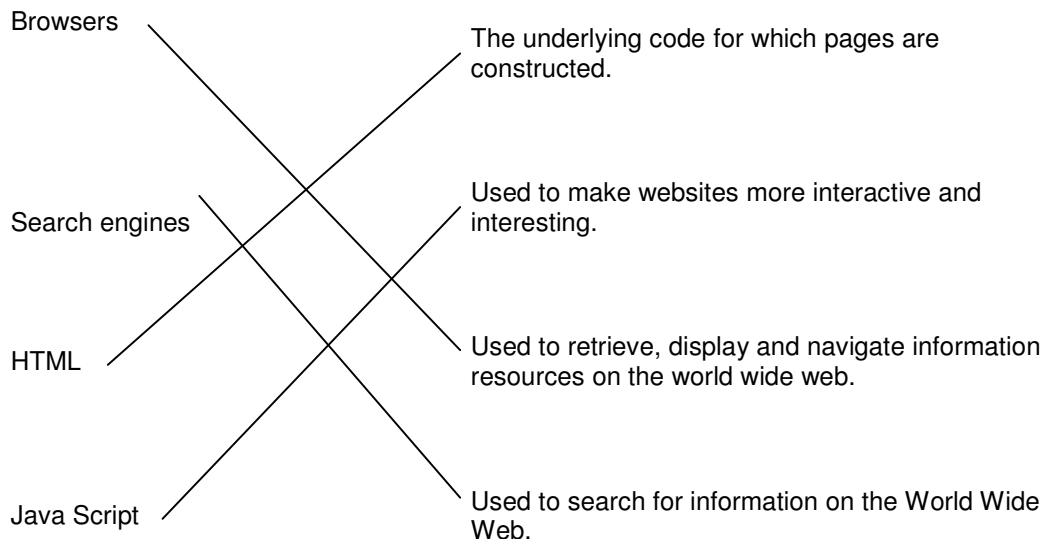
1. Copyright is a major issue in the development of websites. Detail what copyright issues may arise in developing a website?
2. Why do Internet Service Providers now provide many more services?
3. Investigate currently available webpage development software. Evaluate each type of software including the strengths and limitations, and its overall suitability for the production of quality websites.
4. **Planning a Web Site**
Working in small groups select a fictional company/organisation for which you wish to produce a website. Complete the following planning tasks.
 - a) Write a fictional design brief for the site.
 - b) Develop a basic site map
 - c) Develop a wireframe of the site
 - d) Produce a visual Mock-up of the homepage.
5. **Constructing a Website**
After completing the previous design exercises, select an appropriate webpage development software and create a basic website.
6. **Documenting a Website**
Create a training and support document to go with your website.

Suggested Student Responses

Active Viewing Guide

Internet basics

1. Explain how a Domain Naming System (DNS) works?
The Domain Name System (DNS) is a naming system for computers. It associates various information with keywords assigned to websites. Most importantly it translates keywords meaningful for users, to the numerical IP addresses needed for the purpose of locating computer services and devices worldwide. By providing a worldwide, distributed keyword-based redirection service, the Domain Name System is an essential component of the functionality of the Internet.
2. IP addresses are numerical labels that are unique to each computer, much like a mobile phone number. True or False
True
3. What is a URL? Give an example to highlight your answer.
In computing, a uniform resource locator (URL) is a specific character string that constitutes a reference to an Internet resource. It is a naming scheme that directs the user to the IP address. E.g www.google.com has an IP address 72.14.207.99
4. What are the main functions of an Internet Service Provider (ISP)?
ISP's are organisations that connect computers and devices to the internet using copper wires, wireless or optical fibre connections.
5. Link the following Internet Tools/Languages to the appropriate explanation by drawing a line between each.



Developing a Website

6. Database Driven Websites are now a fundamental part of the World Wide Web. Describe how they work and why they are important?
In a database driven website the server dynamically generates HTML code as the user surfs through a website. They are important as they use artificial intelligence engines to personalise the individual experiences for the users. Websites such as Facebook use this effectively in order to produce content tailored to the user's preferences.
7. What is FTP used for in web design?
FTP or file transfer protocol is used to transfer data from one host to another, including the upload of a website from the web developers computer to a server.

Planning a website

8. According to John Anderton what 4 points need to be considered when planning a website?
**1. The desired use of the website
2. Who will be the users of the website?
3. What information do you want on the website?
4. What pathway through the website will the user take?
5. What functionality will the website require?**
9. What are some of the additional functionalities that a client might request for their website? Name 3 types.
Blogs, Wiki Sites, Youtube Channel, Forums, Social Media Sites, Tools and Calculators.
10. Contrast the difference between open and closed websites?
An open access web site, such as Wikipedia, can have its content changed by users. Some websites might have restricted open access to some users only through a logging in process. Whereas, closed websites cannot be altered by users.
11. Accessibility is an important aspect on any website. Some users might have audible or visual disability issues. Outline a number of measures which could be taken to assure that the website is accessible to individuals with these disabilities?
The use of 'ALT Tags' or alternative texts, which describe the graphics on the screen, transcribing video content into text form, scalability of font, are all methods that can be used to improve accessibility of a website.
12. Describe the three steps in the planning process for a website.
**1. Design Brief: This document should outline the business requirements and what the organisation is trying to achieve.
2. Documentation of the Information Architecture: Including the development of sitemaps and wireframes. This is a non-visual representation of the structure of the website.
3. Development of Design Mock Ups: A visual representation of what the site will look like; often built in graphics packages such as Photoshop. The mock up will look like a screen shot.**

Designing and constructing a website

13. Outline the three main website structures?
**1. Linear: a sequential structure
2. Hierarchical: top down structure
3. Web or Mesh: many links, e.g. Wikipedia**

Developing a Website

14. Plugins are an important aspect to any modern website. List 3 plugins which a client may request for their website?

Shopping Carts, Wiki's, Forums, Payment Gate ways, Analytical/Statistical analysis (e.g. Google Analytics)

15. In the table below list 2 of the advantages and 2 disadvantages of using off the shelf website packages.

Advantages	Disadvantages
1. Increased/Improved security of the website	1. Limited templates mean that your website will unlikely be unique
2. Easy to use, quick to setup.	2. Limited functionality, cannot custom design to your needs.

Testing the website

16. Discuss why testing a website is so important.

Answers will vary but may include: to make sure the website works as expected, to make sure each individual link works, to make sure the website works in a range of browsers, to ensure visitors to the site have the overall experience you are expecting them to have.