

# Introduction to Web Design Process

Course Code: CIS121

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# Scope and Coverage

- ◆ This topic will cover:
  - ◆ eCommerce
    - ◆ Revenue models
    - ◆ Types of eCommerce
  - ◆ Web design process
  - ◆ User-centred web design
  - ◆ The research stage of design
    - ◆ Defining goals
    - ◆ Learning about users

# Learning Outcomes

- ◆ By the end of this topic, students will be able to:
  - ◆ Describe the main types of eCommerce and the major eCommerce revenue models
  - ◆ Explain the stages involved in designing a website
  - ◆ Apply user-centred design techniques to define requirements for a web design project

# eCommerce

- ♦ 'The use of the Internet and WWW to transact business' Laudon and Traver (2010, p.8)
  - ♦ The buying and selling of products and services over the Internet
- ♦ Revenue Model
  - ♦ How a business generates money
- ♦ Task: List as many eCommerce revenue models you can think of
  - ♦ How can a business generate income through a website?

# eCommerce Revenue Models

- ♦ Main eCommerce revenue models

- ♦ Advertising Revenue Model

- ♦ <http://www.yahoo.com>

- ♦ Sales Revenue Model

- ♦ <http://www.amazon.com>

- ♦ Subscription Revenue Model

- ♦ <http://www.thetimes.co.uk/>

- ♦ Transaction Fee Revenue Model

- ♦ <http://www.paypal.com>

# Types of eCommerce

- ♦ Business-to-Consumer (B2C)
- ♦ Business-to-Business (B2B)
- ♦ Consumer-to-Consumer (C2C)
- ♦ Peer-to-Peer (P2P)
- ♦ Mobile (M-Commerce)
- ♦ Categories often overlap
  - ♦ Many businesses operate more than one type of eCommerce.

# Business-to-Consumer(B2C)

- ♦ Selling products and services to consumers
- ♦ Examples
  - ♦ Online shops
  - ♦ Newspaper and magazine websites that charge users subscription
  - ♦ Social networking sites that generate revenue through advertising

# Business-to-Business (B2B)

- ♦ Businesses selling products/services to other businesses over the Internet
  - ♦ Largest form of eCommerce
- ♦ Two types
  - ♦ Net marketplace
  - ♦ Private industrial networks
- ♦ *Examples*
  - ♦ A manufacturer selling products to a retailer through their website
  - ♦ A manufacturer ordering raw materials from a



# Consumer-to-Consumer (C2C)

- ♦ Consumers sell to each other through an online business
  - ♦ Consumers sell their own products
- ♦ *Example*
  - ♦ Auction websites where consumers sell items they own to other consumers

# Peer-to-Peer (P2P)

- ♦ Peer-to-peer networks connect computers allowing them to share files.
  - ♦ No need for a central web server
- ♦ *Example*
  - ♦ Hollywood studios distributing films using P2P networks

# M-commerce

- ♦ eCommerce using a mobile device
- ♦ *Example*
  - ♦ Many B2C websites offer iPhone applications with similar functionality as their mainstream website

# Designing and Building a Website - 1

- ♦ Designing and building a website involves much more than writing HTML and CSS.
- ♦ *Task*
  - ♦ List the different stages involved in designing and building a website.

# Designing and Building a Website - 2

- ♦ Designing a website can involve all of the following:

Designing site structure

Learning about users

Writing (X)HTML and CSS

Defining goals

Interface design

Testing

Defining content and functionality

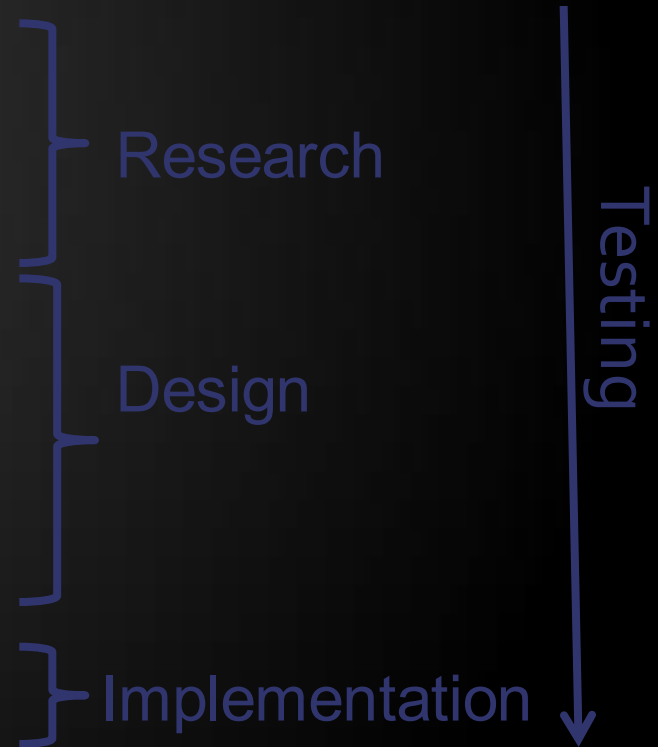
Designing navigation

- **Task** - Put these different stages in order from the activity you would do first to the activity you would do last.

# Web Design Process

- ♦ A typical web design project involves the following:

- Defining goals
- Learning about users
- Defining content and functionality
- Designing site structure
- Designing navigation
- Interface design
- Writing (X)HTML and CSS



# User-Centred Web Design

- ♦ Users visit websites to perform tasks.
  - ♦ E.g. Find a piece of information
- ♦ Many websites are difficult to use.
  - ♦ Users get lost or frustrated and do not complete tasks.
- ♦ The process of designing a website should be 'user-centred'.
  - ♦ At each stage, design with users in mind.
  - ♦ Involve users at each stage of the design process.

# Defining Goals for a Website - 1

- ♦ The starting point for designing a website is to describe the aims and objectives for the site.
- ♦ Example website goals
  - ♦ Create a new sales channel
  - ♦ Reduce the need for printed materials
  - ♦ Reduce the number of calls for information
  - ♦ Build stronger customer relations
  - ♦ Promote a new product



# Defining Goals for a Website - 2

- ♦ Goals should describe what the website will accomplish.
- ♦ These are not goals!
  - ♦ Create a great looking site.
  - ♦ Create a website with video, images and a contact form.
  - ♦ Learn to use HTML 5 and CSS 3.

# Defining Goals - Example

*JB Contemporary Jewellery is a small business that specialises in custom-made jewellery. They sell some pieces at local art fairs and craft markets, but the majority of their sales come through one-off commissions. Customers approach them to design and create individual pieces of jewellery. Currently they do not have a website; customers are referred to them by 'word of mouth' or because they have seen their work on display in art galleries.*

- ♦ They would like a website to help their business.
- ♦ Question:
  - ♦ What do you think the goals will be for the

# Defining Goals

## Possible goals for JB Contemporary Jewellery

1. Create a new sales channel for the jewellery
2. Increase the number of commissions
3. Build better relations with existing customers

# Learning About Users - 1

- ♦ Web design projects often conduct research into the intended users.
  - ♦ We need to know about users in order to design a website that meets their needs.
- ♦ Question:
  - ♦ What kinds of information would it be useful to know about users when designing a website?

# Learning About Users - 2

- ◆ Information about the users themselves
  - ◆ Age, gender, disabilities, occupation, education, nationality, experience of using the web
- ◆ Context of use
  - ◆ Desktop or mobile, connection speed, screen resolution, browser, operating system
- ◆ Goals
  - ◆ What the user hopes to achieve from visiting the site
- ◆ Question: How can we find out this information?

# Learning About Users - 3

- ♦ Research techniques for finding out about users.
  - ♦ Server logs
  - ♦ Surveys
  - ♦ Interviews
  - ♦ Focus groups
    - ♦ A moderator led discussion with a group of users
- *A survey of potential users for the JB Contemporary Jewellery website has been conducted...*

# Learning About Users - 4

Gender	Male 32%	Female 68%			
Age	18-24 2%	25-34 23%	35-44 31%	45-54 32%	55-64 12%
Browser	Internet Explorer 40%	Firefox 18%	Chrome 10%	Safari 5%	Unknown 27%
Screen Resolution	800x600 1%	1024x768 35%	Higher 64%		
How did first hear about JB Contemporary Jewellery	Art Gallery 37%	Craft Fair 21%	Friend/ Family Member 42%		

# Personas - 1

- ♦ A persona is a fictional description of a typical use
  - ♦ Based on the research carried out into users

**Name:** Anne Foster

**Age:** 49

**Occupation:** Part-time Accountant

**Browser:** Internet Explorer

**Screen Resolution:** 1024x800

**Web experience:** Regularly uses the web to check her email, keep in touch with friends and shop online.

**Details:** Anne is married with two teenage children. She cares about the way she looks and likes to think she has a distinctive style, not just following the latest fashions and trends.



# Personas - 2

- ♦ A number different personas are created for each distinct type of user
- ♦ We add specific personal details to the persona
  - ♦ E.g. a name, a relevant description, a photograph
  - ♦ This helps keep users in mind during the design process.

# Defining Content and Functionality - 1

- ◆ Content

- ◆ The text, images, audio, animation and video in the site

- ◆ Functionality

- ◆ Things the user can do at a website
  - ◆ Buy a product
  - ◆ Register
  - ◆ Leave a comment
  - ◆ Contact the organisation

# Defining Content and Functionality - 2

- ◆ Techniques for defining content
  - ◆ Scenarios
  - ◆ Analysis of an existing website
  - ◆ Competitor analysis
  - ◆ Brainstorming

# Scenarios

- ♦ A scenario describes how the user completes a task using the site
  - ♦ A story describing how the user interacts with the site
- ♦ The scenario should describe
  - ♦ The user (a persona)
  - ♦ The user's objective
    - ♦ Reason for visiting the site
  - ♦ The stages involved in achieving the objective
- ♦ Scenarios are developed through research with real users.
  - ♦ They can also be invented and then tested with real users.

# Example Scenario - 1

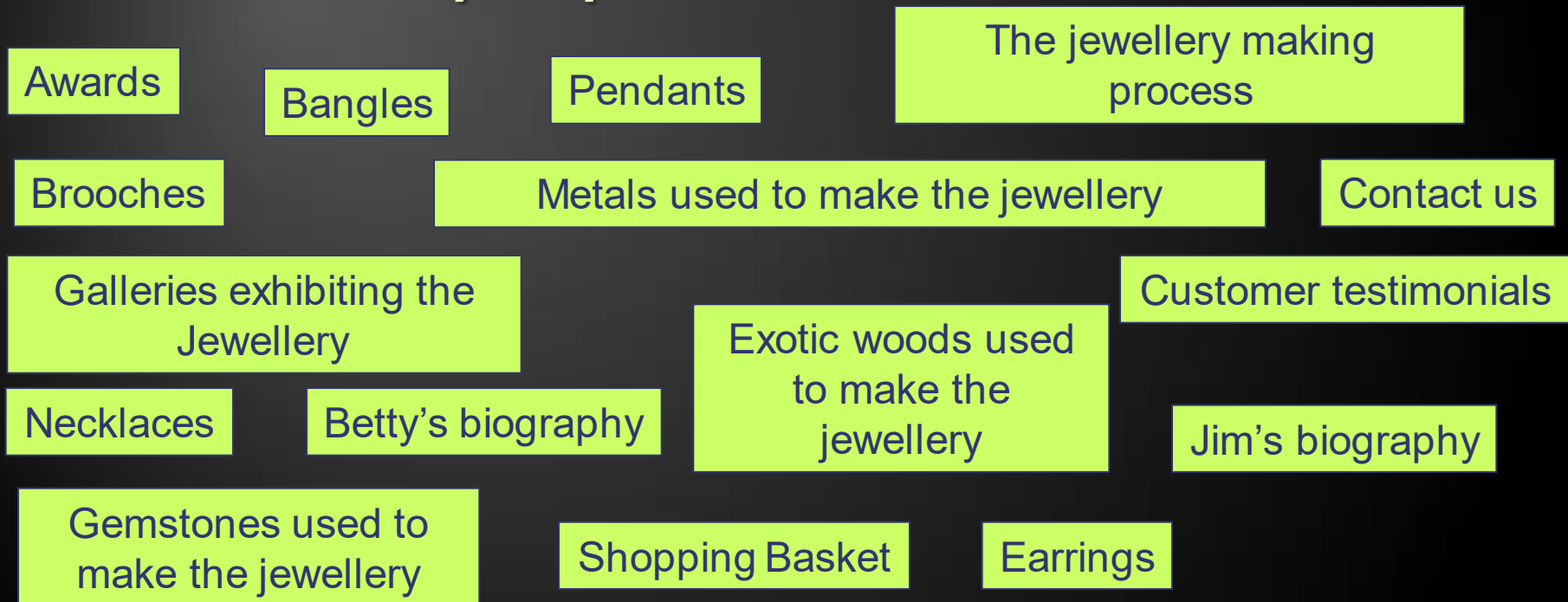
- ♦ Anne likes a brooch one of her friends is wearing. It is a unique piece made for her friend by JB Contemporary Jewellery.
- ♦ Anne searches for the JB Contemporary Jewellery website online.
- ♦ She finds the site and explores the examples of Jewellery they have on the site. She particularly likes some earrings displayed on the site and the idea of having a pair made specially for her. She finds out the choice of materials the earrings can be made from, how much they will cost, and how long it will take to have them made and delivered.

## Example Scenario - 2

- ♦ The jewellery seems quite expensive, but after watching a video showing the skill involved in creating each piece, she decides that she would like to order a pair of earrings.
- ♦ She uses the website to select the materials for her earrings and orders them through the site.
- ♦ Two weeks later, Anne's custom-made earrings arrive in the post.

# Defining Content and Functionality

- ♦ The outcome of this stage is a list of content and functionality requirements.



# Web Design Process

- In the next topic, we will look at the design stages.

- ♦ Defining goals
- ♦ Learning about users
- ♦ Defining content and functionality
- ♦ Designing site structure
- ♦ Designing navigation
- ♦ Interface design
- ♦ Writing (X)HTML and CSS

