CS 2033

# Multimedia & Communications II

LECTURE 10 - CMS AND E-COMMERCE WEBSITES

- Content Management Systems (CMS) are useful website platforms.
- They make it easy to create and maintain websites without having to know any code.
- The content is separated from the code so website content can be updated in a visual interface.

- Consider a large website like Wikipedia.org or msn.com.
- Imagine how time consuming and complicated it would be to update content if it was within the code.
- Instead, the code and content are split up into separate components.

- Main advantages of using a CMS
  - Split content from code
  - Keep job roles separate
  - Keep the site more organized
  - Pre-made themes
  - Many easy-to-add modules
  - Built-in SEO

- ► How does this work?
  - Content is typically saved into a database or external files.
  - The code is used for the website layout and template.
  - The code also loads the content from the database.
  - Note that HTML cannot load from a file or database; use PHP or ASP.

#### Content within code

```
<!doctype html>
<html>
 <head>
   <title>Courses</title>
   <link rel="stylesheet" href="css/styles.css">
 </head>
 <body>
   <h1>CS 1033</h1>
   This course is an introduction to multimedia and
   communications. Topics include Photoshop basics, design principles,
   creating a website with a WYSIWYG program, animations, video, and audio.
   <h1>CS 2033</h1>
   Following the multimedia topics introduced in CS
   1033, this course offers a more advanced look at Photoshop tools and
   website development. HTML, CSS, JavaScript, and other modern technologies
   are taught.
 </body>
</html>
```

#### 7

#### Code without content

```
<!doctype html>
<html>
 <head>
   <title>Courses</title>
   <link rel="stylesheet" href="css/styles.css">
 </head>
 <body>
   <h1>
     <!-- load coursel from database -->
   </h1>
   <!-- load description1 from database -->
   <h1>
     <!-- load course2 from database -->
   </h1>
   <!-- load description2 from database -->
   </body>
</html>
```

Course	CS 1033
Description	This course is an introduction to multimedia and communications. Topics include Photoshop basics, design principles, creating a website with a WYSIWYG program, animations, video, and audio.
Course	CS2033
Description	Following the multimedia topics introduced in CS 1033, this course offers a more advanced look at Photoshop tools and website development. HTML, CSS, JavaScript, and other modern technologies are taught.

#### Database



- By splitting up the code and content, these websites can have distinct team members.
  - Editors writing/creating content only.
  - Programmers making the layout and handling other functional modules.
  - Neither one has to deal with the other since they are completely separated.

# CMS

- This is not only used for large, complex websites.
- Many websites now use CMSs.
  - ► News sites
  - **Blogs**
  - ► Sites with articles
  - Sites with changing content
  - ► Wikis (more on wikis shortly...)

# CMS

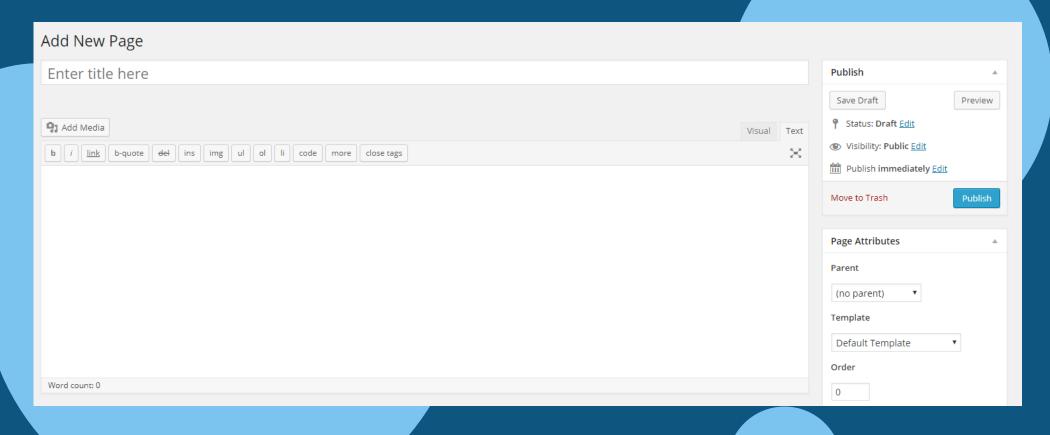
- CMS platforms:
  - WordPress (most popular one)
  - ► Joomla!
  - ▶ Drupal
  - Cascade (UWO uses this one)

Big companies may create their own CMS instead of using one of these.

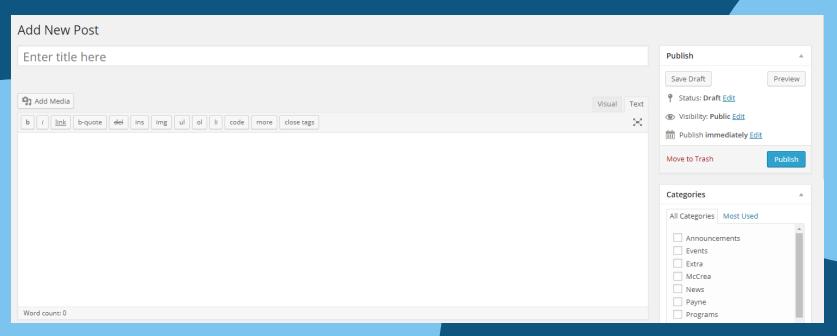
- WordPress is free and easy to use.
- After registering, they provide you with an online control panel, shortened to cPanel.
  - cPanel is used by other platforms as well as WordPress.
- cPanel is the main hub for editing the site without touching code.

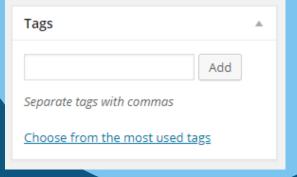
- ► Posts vs. Pages
  - Posts are for articles, news items, products, etc.
  - Pages are whole webpages
  - Posts generally don't have a fixed web location, which is unlike webpages
  - Blog pages usually contain one or more posts
  - WordPress allows you to create both

#### Adding a page in the WordPress cPanel



#### Adding a post in the WordPress cPanel







- ► WordPress themes:
  - Pre-made templates that are customizable
  - Comes as a folder of many code files (PHP, CSS, etc.)
  - Free or purchasable
  - ► Great examples:
    - https://athemes.com/airi-demos/

- ► Who actually uses WordPress?
  - The Walt Disney Company
  - ► Walking Dead
  - Snoop Dogg
  - ▶ Palasad
  - Many many others

# Wiki

- ► What is a wiki?
  - To help answer this, think about Wikipedia.

What is a unique feature of Wikipedia?

# Wiki

- ► Wikis are special kinds of CMSs.
- Collaboration is key with wikis.
- Many users contribute to the website's content.
- Wiki means "quick" in Hawaiian.
- They are seen as quick and simple because the content is added by a community rather than one person.

# Wiki

- Wikipedia is the most popular wiki.
- This is a public wiki, meaning anyone can edit it.
- Some wikis are private so only select communities or user groups have access to view or edit them.
- OWL is an example of a special, private wiki!

- e-commerce (also written as eCommerce) is online vending.
- Selling or purchasing anything online counts as e-commerce.
- Pizza Pizza website/app or a meal through Uber Eats or Skip The Dishes.

- Shopping for clothes, electronics, books, games, food, and virtually all other products.
- Examples of e-commerce websites:
  - Amazon
  - Walmart
  - Best Buy
  - Uber Eats

- PeBay and Amazon were the main pioneers for e-commerce, and now many businesses use it in some way.
- Amazon began with Jeff Bezos selling a book from his garage over the Internet. That started a revolutionary company that now generates hundreds of billions of dollars through global purchases.

- Advantages for the consumer:
  - No need to go out of the house
  - Quick and easy to do
  - Comparison shopping
  - Look at reviews before buying
  - No time or geographical restrictions
  - No waiting in line

- Advantages for the business:
  - No/less geographic limitations
  - No need for retail space
  - Lower number of employees
  - Easy to track inventory, payments, demographics, user trends, etc.
  - Easy to use such information to create targeted specials, recommended products, etc.

- Market basket analysis
  - Find items that are purchased together
  - ► i.e. many people who buy peanut butter also buy jam at the same time
  - Businesses can then sell these items together or make recommendations
  - i.e. when you are buying a PC on an ecommerce site, they recommend buying a printer with it



- ► There are e-commerce CMSs:
  - Shopify (Canadian ?)
  - ➤ Volusion
  - ► Magento
- There are also ways to incorporate payments directly into your site:
  - PayPal
  - Stripe

- Cart abandonment is an issue that e-commerce vendors hate!
- This is when users begin adding items to their cart and then leave the site without placing an order.
- There are marketing articles written about how to avoid the dreaded "abandoned cart" dilemma.

- An option for incorporating commerce into a website is PayPal.
- Set up an account that links to your bank account.
- Insert "Add to cart" buttons in the site and PayPal manages the cart.
- Checkout will also use a PayPal module to handle the payment.

- PayPal was a popular method before because they handle and process the payments.
- They also take a cut of the transactions though.
- The processing of a transaction is called a payment gateway. This is not specific to PayPal.

- e-commerce platforms like Shopify also include payment gateways.
- Another option is to use a third-party platform like Stripe which allows you to embed a payment system in your own site.
  - However, they also take a cut from the transactions. ?