

CS 2033

# Multimedia & Communications II

LECTURE 10 – CMS AND E-COMMERCE WEBSITES

# What is a CMS?

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- ▶ 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.

# What is a CMS?

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- ▶ 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.

# What is a CMS?

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## ▶ 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

# What is a CMS?

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- ▶ 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.

# What is a CMS?

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## Content within code

```
<!doctype html>

<html>

  <head>
    <title>Courses</title>
    <link rel="stylesheet" href="css/styles.css">
  </head>

  <body>

    <h1>CS 1033</h1>
    <p class="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.
</p>

    <h1>CS 2033</h1>
    <p class="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.</p>

  </body>

</html>
```

# What is a CMS?

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## Code without content

```
<!doctype html>

<html>

  <head>
    <title>Courses</title>
    <link rel="stylesheet" href="css/styles.css">
  </head>

  <body>

    <h1>
      <!-- load course1 from database -->
    </h1>
    <p class="description">
      <!-- load description1 from database -->
    </p>

    <h1>
      <!-- load course2 from database -->
    </h1>
    <p class="description">
      <!-- load description2 from database -->
    </p>

  </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

# What is a CMS?

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- ▶ 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

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- ▶ 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

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- ▶ 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

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- ▶ 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.

# WordPress

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## ► 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

# WordPress

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## Adding a page in the WordPress cPanel

### Add New Page

Enter title here

Add Media

b

i

link

b-quote

del

ins

img

ul

ol

li

code

more

close tags

VisualText

Word count: 0

Publish

Save DraftPreview

Status: Draft [Edit](#)

Visibility: Public [Edit](#)

Publish immediately [Edit](#)

Move to TrashPublish

Page Attributes

Parent

(no parent) ▼

Template

Default Template ▼

Order

0


# WordPress

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## Adding a post in the WordPress cPanel

Add New Post

Enter title here

 Add Media

Visual Text

**b i link b-quote del ins img ul ol li code more close tags**


Word count: 0

**Publish**

Save Draft Preview

Status: **Draft** [Edit](#)

Visibility: **Public** [Edit](#)

 Publish immediately [Edit](#)

[Move to Trash](#) [Publish](#)

**Categories**

All Categories Most Used

- ☐ Announcements
- ☐ Events
- ☐ Extra
- ☐ McCrea
- ☐ News
- ☐ Payne
- ☐ Programs

**Tags**

[Add](#)

*Separate tags with commas*

[Choose from the most used tags](#)

**Custom Fields**

Add New Custom Field:

Name	Value
<input type="text" value="— Select —"/>	<input type="text"/>

[Enter new](#)

[Add Custom Field](#)

Custom fields can be used to add extra metadata to a post that you can [use in your theme](#).

# WordPress

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- ▶ 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/>

# WordPress

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## ▶ Who actually uses WordPress?

▶ The Walt Disney Company

▶ Walking Dead

▶ Snoop Dogg

▶ Palasad

▶ Many many others



# Wiki

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- ▶ What is a wiki?
- ▶ To help answer this, think about Wikipedia.
- ▶ What is a unique feature of Wikipedia?

# Wiki

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- ▶ 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

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- ▶ 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

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

# e-commerce

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

# e-commerce

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- ▶ eBay 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.

# e-commerce

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- ▶ 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

# e-commerce

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- ▶ 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 e-commerce site, they recommend buying a printer with it

# e-commerce

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CUSTOMERS WHO BOUGHT THIS ITEM




ALSO BOUGHT THIS



# e-commerce

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

# e-commerce

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- ▶ **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.

# e-commerce

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- ▶ 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.

# e-commerce

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- ▶ 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

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- ▶ 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. [?]