

CGT 353 Lecture I

Introduction to Rich Internet Applications, Background, and Possibilities

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Introduction

- The Web is and has been changing - away from static, boring pages...
- With **Rich Internet Applications (RIAs)**, developers now have an option...
- All the interfaces in the Adobe line are nearly identical... We will use Adobe Flash as a tool to create some RIAs
- We need to see how Flash fits in with other technologies...
- Flash should not be utilized by itself (use with Javascript, HTML, etc...)

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Rich Internet Applications (RIAs)

- Rich Internet Applications (RIAs) are web applications that have most of the characteristics of desktop applications, typically delivered either by way of a standards based web browser, via a browser plug-in, or independently via sandboxes or virtual machines.
- Examples of RIA frameworks include Ajax, Curl, GWT, Adobe Flash/Adobe Flex/AIR, Java/JavaFX, Mozilla's XUL, OpenLaszlo and Microsoft Silverlight.

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Rich Internet Applications (RIAs)

- These are web application that have characteristics of desktop applications.
- Rich Internet applications (RIAs) offer a rich, engaging experience that improves user satisfaction and increases productivity.
- Using the broad reach of the Internet, RIAs can be deployed across browsers and desktops.

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Difference between RIAs & other Web Apps

- The key difference between RIAs and other Internet applications is the amount of interaction in the interface. In a traditional page-based Internet application, interaction is limited to a small set of standard controls such as checkboxes, radio buttons, form fields and buttons.
- This severely limits our ability to create usable and engaging applications, and most Internet applications have been clumsier and more difficult to use than their desktop counterparts.

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Designing for your Audience

- For Whom Are You Developing?
 - Always develop for the lowest common denominator (within reason)
 - Good rule of thumb to design for the upper 84% of the population

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HTML5

- The newest iteration of HTML
- Many of the existing HTML tags you know still work
- Some of the HTML tags you know have been deprecated or removed
- W3C Working Draft:
<http://www.w3.org/TR/html5/>

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What is HTML5?

- It's a collection of new components
- It's not one entity
 - Before, you could detect for certain things, like browsers or plugins
 - Similarly, you can detect for HTML5 components before you attempt to use them, such as video or canvas
 - You **cannot** simply detect HTML5 though

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What is HTML5?

- You can still detect browsers
 - Based on the browser, you can research whether the HTML5 you want to use will work on that browser.

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What is HTML5?

- Your older HTML can be upgraded to become HTML5... or you can leave your old HTML the way it is, as long as it calls the correct doctype
- New Doctype:
 - `<!DOCTYPE HTML>`

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Page Setup Requirements

- The first line of every XHTML5 document should always be the following XML declaration
`<?xml version="1.0" encoding="UTF-8" ?>`
- The second line of each document should use the XHTML5 DTD for the `<!doctype>` tag.
`<!DOCTYPE html>`

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Page Setup Requirements

- The next line of code should be the opening `<html>` tag. The `<html>` tag in every document should always be
`<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">`
 - `xmlns` specifies the XML namespace for a document.
 - `xml:lang` specifies the contents and attributes as English and is a required accessibility standard.
 - `lang` specifies the content of a tag as English and is a required accessibility standard.

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Page Setup Requirements

- At the top of every XHTML5 file, between the <head> and </head> tags, place a <meta> tag as shown below:
<meta charset="utf-8" />
- The encoding type (UTF-8) should match the encoding in the XML declaration above.

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Validating

- The Total Validator tool is pretty handy for validating your HTML5 documents.
<http://www.totalvalidator.com/tools/index.html>
- There are a few validator add-ons to the browsers, some do HTML5 well, others do not.

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Parts of HTML5 doc

- <section>
 - <section> is a set of content that you could store as an individual record in a database
 - General format:

```
<section>
  <h1>Any level of heading</h1>
  The rest of the content
</section>
```
 - It is still advisable to use a <div> to perform styling

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Parts of HTML5 doc

- <header>
 - Do not confuse with the <head> element
 - <header> is a group of introductory or navigational aids
 - It is the head of a new section
 - Use the <header> at the start of your page or inside an <article>, as examples.

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Parts of HTML5 doc

- <footer>
 - As you might expect, represents the footer for the section it applies to.
 - Where you have a header, you may often find a footer that goes with it, again for the main page, or in a section or article, etc.

```
<section>
  Section content appears here.
  <footer>
    Footer information for section.
  </footer>
</section>
```

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Parts of HTML5 doc

- <article>
 - Use <article> when you have a page that is laid out like syndication. For example, an RSS feed, course announcements, forum post, magazine article, etc.

```
<article>
  <h1>Title</h1>
  <p>paragraph information about the
  topic</p>
</article>
```

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Table layout

```
<table style="width:500px;padding:1px;margin:1px;border:0px" title="Listing of Server Variables">
<thead>
<tr>
<th style="border:1px solid #000000;">Key</th>
<th style="border:1px solid #000000;">Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>a listing of server variables</em></td>
</tr>
</tbody>
</table>
```

Table layout continued

```
<tbody>
<?php
foreach($_SERVER as $key=>$value)
{
?>
<tr>
<td style="border:1px solid #000000;"><?php echo $key;?></td>
<td style="border:1px solid #000000;"><?php echo $value;?></td>
</tr>
<?php
}
?>
</tbody>
</table>
```

Assignment