

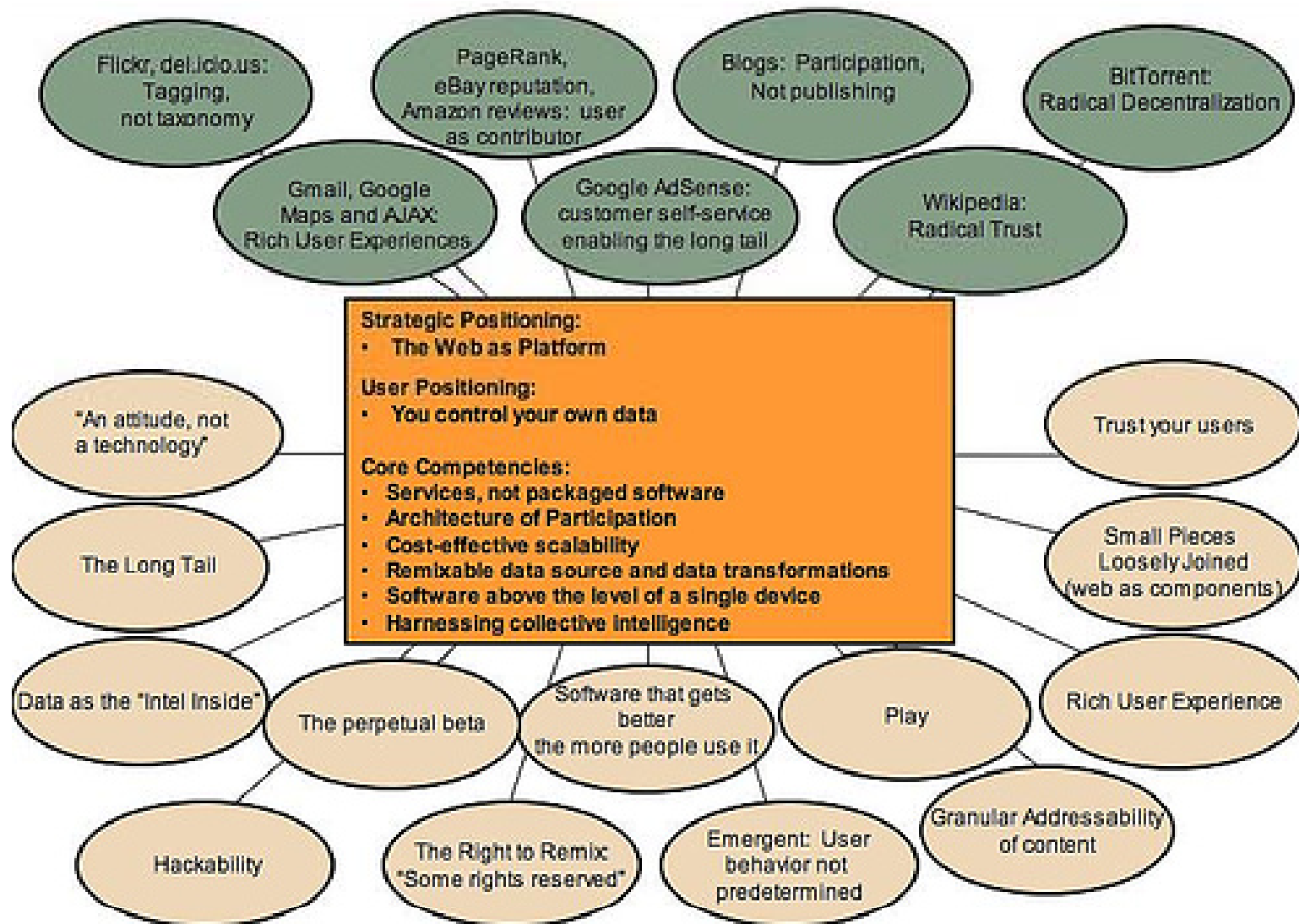
# CSP2103-4102: Markup Languages

## Lecture 11: Web 2.0, Technology and Applications

# Web 2.0

- To begin with, Web 2.0 is not a technology, it is a concept
- It is less about software architectures, and more about participation
- It typically involves bringing different technologies together into an integrated framework for non technical users
- It is a created term first devised by O'Reilly publishers and MediaLive international
- In some small way the 2.0 might reflect the re-birth of the Web as a place to do business after the dot.com debacle

# Web 2.0 Meme Map



<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>

# Some Web 2.0 Technologies

- Funnily enough, most of the technologies have been around in one form or another for some time
- Cascading style sheets (well known to this unit)
- RSS
- Mashups – integrated content in single place (portals in other words)

# Folksonomies

- Folksonomies – essentially user generated taxonomies (such as xml syntax), though typically delivered in a social context, such as group bookmarking or annotated content
- Basically, it is people designing their own information categorisation system for adding information to their online content

# Microformats

- Essentially an integration of HTML/CSS used in almost an XML (symantic) way, for example, the hCalendar microformat for upcoming events

```
<p class="vevent">
  The <span class="summary">English Wikipedia was launched</span>
  on 15 January 2001 with a party from
  <abbr class="dtstart" title="2001-01-15T14:00:00+06:00">2</abbr>-
  <abbr class="dtend" title="2001-01-15T16:00:00+06:00">4</abbr>pm at
  <span class="location">Jimmy Wales' house</span>
  (<a class="url" href="http://en.wikipedia.org/wiki/History_of_Wikipedia">more information</a>)
</p>
```

<http://en.wikipedia.org/wiki/HCalendar>

- As you can see, this is not a ‘technology’ as such, just an agreed upon way of using HTML/CSS

# Wiki's

- Wiki's are social commenting and information gathering tools
- Wikipedia is the king of wiki's, with over 2 000 000 article entries from members of the Web public,
- Wiki's are heavily used for collaboration, and make excellent knowledge management tools
- Can be moderated or un-moderated, depending on requirement for quality control
- Typically, the higher the level of editorial control, the lower the levels of participation

# Weblogs (blogs)

- Aside from email, perhaps the most popular Web technology of the 21<sup>st</sup> century
- Since the invention of Gutenberg's printing press, people have felt the need to tell others about their lives (regardless of interest levels)
- Blogs can be a single person posting the ins and outs of their lives, or a community of people discussing a certain topic (such as sports or celebrities and so on)
- In many ways, weblogs have replaced what News Groups used to represent



# Weblogs (blogs) cont...

- Weblogs have transformed into different forms in the 21<sup>st</sup> century
- Social networking sites have become THE huge business of the Web, probably just behind search engines and advertising
- Facebook, currently the most popular social networking site, combines the features of weblogs, wiki's and general web content management systems (easy uploading of files into a managed site) – MySpace is another
- Such sites take the technical sting out of creating and coding a website – so that users need only decide what content to place on it
- The community grows by including 'friends' features that require other users to sign up to participate in a persons online life

# Ajax

- Ajax is actually a ‘technology’ associated with Web 2.0 that has some technical underpinnings
- It stands for Asynchronous Javascript and Xml
- Asynchronous Ajax applications have data components that can send/receive small amounts of data and perform actions on it without having to re-load an entire app
- A classic example is your second assignment, where you are using JavaScript, xml and xslt to run a data driven application, yet not all of the website changes when you move data from page to page

```
xmlHttp.open("GET","time.asp",true);  
xmlHttp.send(null);
```

- Your menus, banners and other items remain untouched, with only the targeted DIV elements being changed via the Javascript and xml/xslt interaction

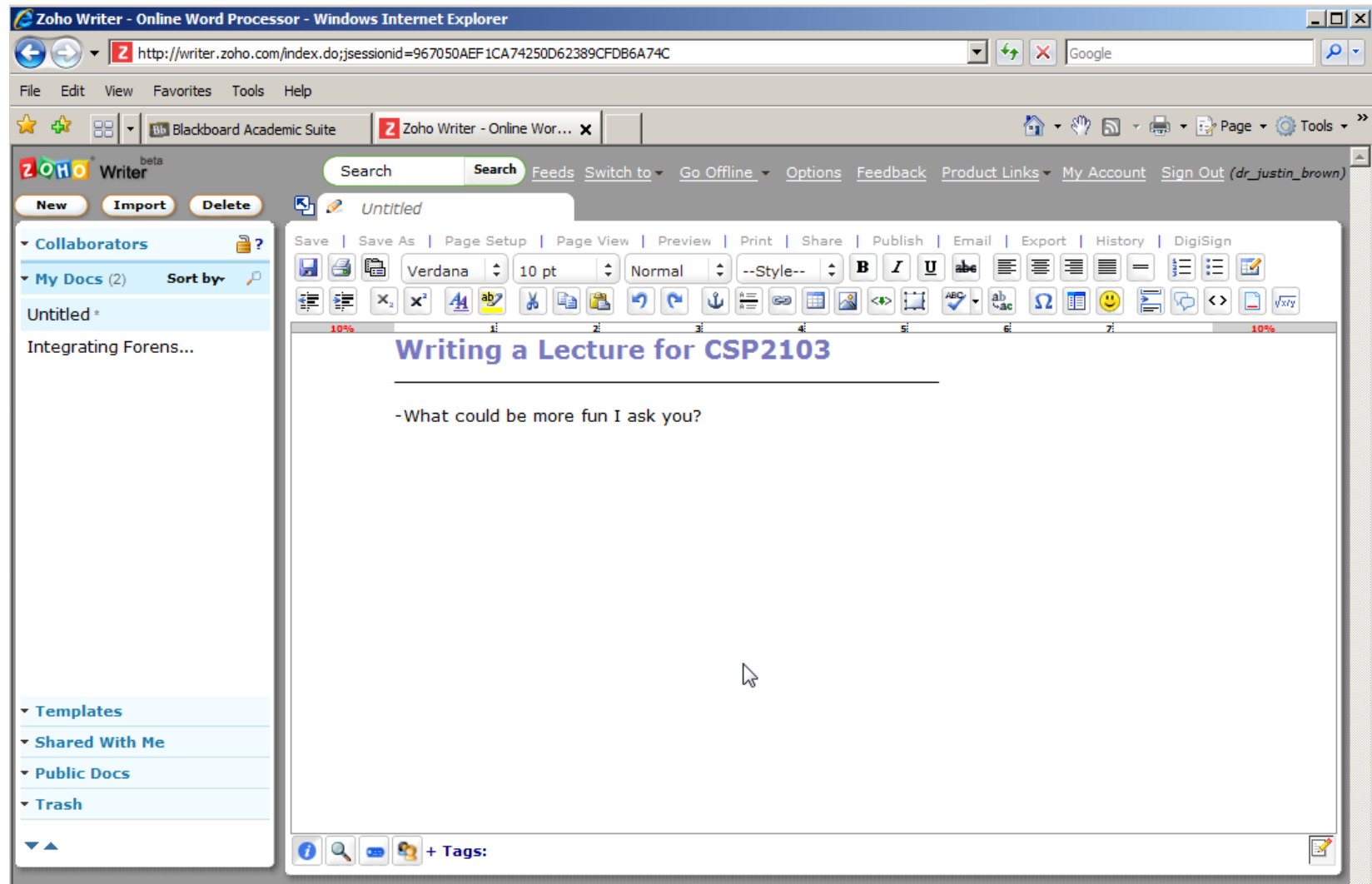
# Ajax cont...

- Google Maps uses Ajax structures on the client side to refresh and load certain parts of the screen
- Obviously, there are issues because of the reliance on Javascript (especially with cross browser compatibility)
- Can be slow and clunky with large data sources
- If data is being sent from a server, then the client side Ajax app is still reliant on an open web connection
- However, the beauty of Ajax is that it is bringing complex, client side technologies (like the ones covered in this unit) to the forefront of popular development (which means jobs)

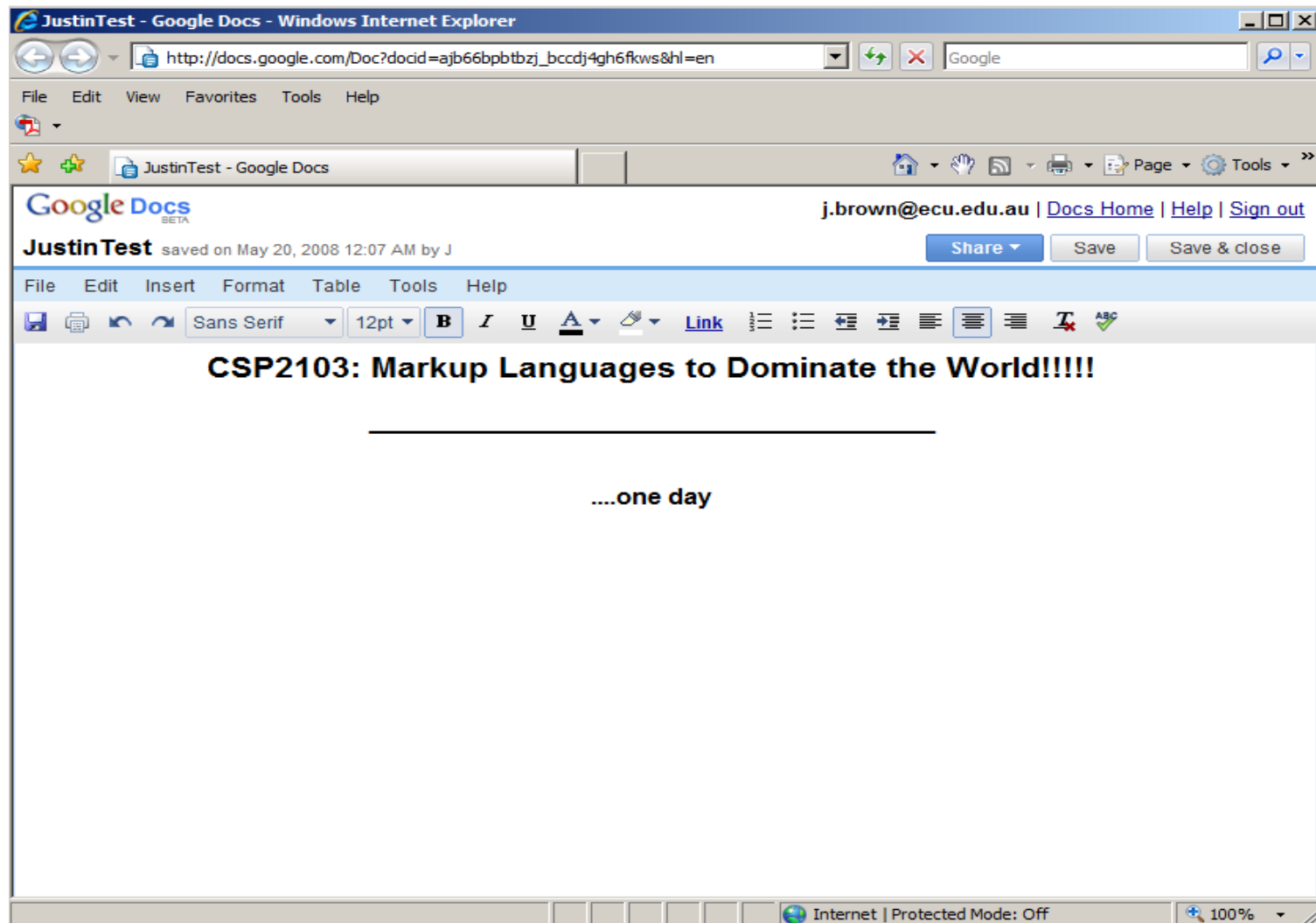
# Online Application Suites

- Applications that were once the domain of your local Operating System are now starting to appear online
- Word processors, spreadsheets, presentation tools and databases can be run via you browser, over the web
- The following screen show just few examples of some of the more popular online application suites
- This are is growing massively, and is starting to get media air-time
- Falls into the framework of Software as a Service (Saas), which is related to our previous discussion of components and web objects

# Zoho Web Application Suite



# GoogleDocs




# Online Application Suites





- True platform independence
- No more leaving files on ‘your other machine’
- Instead of sending out files with track changes switched on, it works live in the multi user document
- Obviously, some issues
- Speed / availability / security / compatibility with other systems / function depth

# Commenting

- One of the more interesting areas of participation on the web
- Web sites actively get users to rate their content, such as news sites
- Also, the viral nature of web information ensures interesting items are sent to others (drawing them to the site)

**Rate this story**   Low  High

Current rating: 3.5 by 36 users   • [View Top Rated stories](#)

 [Print this](#)    [Email this](#)    [Blog this](#)    [IM this](#)



# Commenting cont...

## COMMENTS

No comments yet.

### SEND A COMMENT

**PLEASE READ:** All comments must be approved before appearing in the thread; time and space constraints prevent all comments from appearing. We will only approve comments that are directly related to the blog, use appropriate language and are not attacking the comments of others.

**Message** (please, no HTML tags. Web addresses will be hyperlinked):

**Your name, city and state** (John Doe, Seattle, Wash.):

**Your e-mail address** (jdoe@msnbc.com):

**Your website** (it's okay if you don't have one):


**Remember me?** (We'll keep it private) ☐ Remember me?



# Commenting cont...


http://photoblog.msnbc.msn.com/archive/2008/05/17...

msnbc PHOTOBLOG Home » Multimedia

It takes a special kind of person to voluntarily put themselves in this sort of jeopardy.

 **Katie Cannon**  
Senior multimedia editor

 E-mail this  Discuss this



epa01348218 South African big wave surfer Simon Lowe surfs a wave at an offshore reef known as Sunset off Cape Town, South Africa 17 May 2008. Big winter storms hitting the Cape Peninsula have provided huge waves for surfing. The waves are too big to paddle into so the surfers use waverunners to tow them into the fast moving swells. The surfers ride custom made surfboards that are heavier than normal and have footstraps to help control the board at high speeds. (Nic Bothma/EPA)

view all

25 COMMENTS

Surf's up! Way, waaayyy up!

MickeyMass  
May 17, 2008

# Participation

- As many of these slides have shown, participation is perhaps the most prominent aspect of Web 2.0
- The news and media outlets are primary drivers of participation, with commenting and blogging of news articles being commonplace
- Such activity can be used to keep people coming back, and to judge popularity of certain topics and articles
- In the end, it leads to exposure to advertising and collection of personal preference data

# Participation = Business

According to Papworth, Web 2.0 communities deliver significantly improved loyalty, brand and support ROI from traditional advertising and phone support.

Compared with Web 1.0 sites, customers visiting Web 2.0-enabled sites were found to visit nine times more often, staying five times longer. Web 2.0 sites were also found to produce four times the unaided brand recall when compared with a search engine, often offer peer-to-peer support via message boards, that Papworth said to be

times more cost-effective than print.  
<http://www.computerworld.com.au/index.php?id:701909882>

Just keep in mind that MySpace users, more than half of whom are under 35, come to the site to be entertained. They typically don't log on thinking, "Gee, I'm sure in the mood to take a marketing survey this evening." So your page had better be visually appealing, fun, and interactive. Season your survey questions with attitude. Upload photos, videos, and music files. Give people a reason to laugh or something cool to share with their friends. Invite users to leave comments--and resist the urge to censor even the nasty ones. MySpace users typically gravitate toward pages with lots of comments. Finally, remember that frequenters of online worlds can smell insincerity a mile away. So don't hide your profile on MySpace ([myspace.com/etsy](http://myspace.com/etsy)), a marketplace for handmade goods that maintains a

# And So...

- The developers (like you) continue to write client and server side applications
- People in business and the media will continue to come up with new and incomprehensible names for the applications you write
- People will continue to discuss Web 2.0 as though it is actually a tactile technology
- Until they release the service pack and we get Web 3.0

# Conclusion

- But seriously;
- Web 2.0 ‘technologies’ will continue to generate asynchronous participation across all aspects of the web and web applications
- The client side skills you have learned in this unit, particularly xml and xslt, will serve you well in developing Web 2.0 systems
- The web will always have its fads and ‘hot’ sites – some will last and some will not
- Regardless, they will always need developers and I.T. experts somewhere in the mix to make it all work