

CS520 Web Programming Course Overview

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Advantages of Web Applications

- ◆ Easy to distribute → easy to attract large number of users
- ◆ Easy to use
 - From anywhere
 - No installation required
- ◆ Easy to administrate
 - Maintenance, troubleshooting, upgrade

◆ *Disadvantages??*

Success Stories

- ◆ Google
 - Deja News, Blogger, Picasa, Keyhole, YouTube
- ◆ Yahoo
 - Dialpad, blo.gs, Flickr, Del.icio.us
- ◆ Ebay
 - Craigslist, Skype
- ◆ News Corp
 - Myspace.com

So What's in CS520?

- ◆ Tools, libraries, frameworks, and methodologies for developing *complex* web applications
 - Robust, scalable, and maintainable
- ◆ Emerging technologies
- ◆ Research issues

Web Development Fundamentals

- ◆ MVC architecture, design patterns
- ◆ Frameworks
 - Spring, Hibernate
- ◆ Tools and libraries
 - Build, version control
 - File uploading, email
 - Full text search
 - RSS and Atom feeds
 - Task scheduling

Emerging Technologies

- ◆ Ajax
- ◆ Web services
 - SOAP, WSDL, UDDI, RESTful
- ◆ Semantic web
 - The semantic web stack
 - RDF

Research Issues

- ◆ User activity analysis
 - Recommendation systems
 - ◆ Collaborative filtering
 - Web data mining
 - ◆ Improve user experience
 - ◆ Adaptable web applications