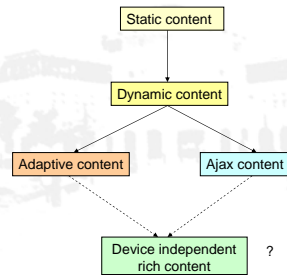


What does the future hold for web application design?

Dr. David Parsons
Institute of Information and
Mathematical Sciences
Massey University
Auckland, New Zealand

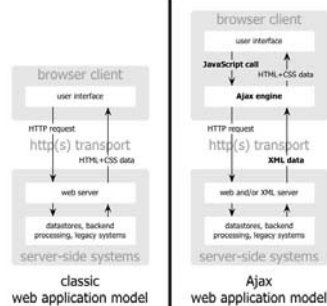


Web Applications: A (temporary) Evolutionary Split?



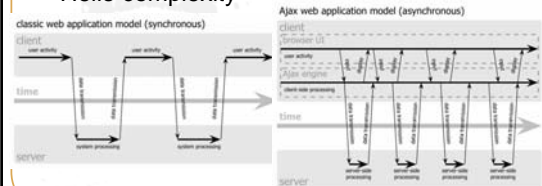
Garrett's AJAX model

- Ajax is not a tool or a technology
- However it does require client side scripting



The One Page Web

- Goodbye request response
- Hello complexity



A trivial Ajax demo



The Web 2.0

- First Web 2.0 Conference 2004
- The Web as a software platform
- User and developer communities
- Service Oriented Architectures
 - The Programmable Web (service APIs)
 - Mashups
- Not just about AJAX



Web 2.0 Patterns

- Participatory architectures
 - Shared databases, wikis, blogs
- Software above the level of a single device
 - Server side
 - Syndicating end point for mashup services
 - Client side
 - Many different types of device for a given service
 - Mashups possible for some types of client
- Role of XML and related APIs

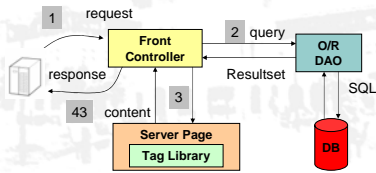


Key Themes in Web 2.0

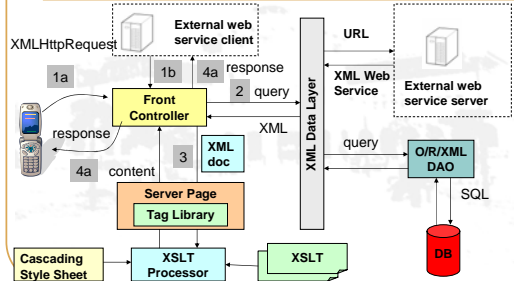
- Application development as a web based, community activity
 - Cooperation, not control
 - Perpetual beta
 - Remixable APIs
- Data driven web applications
 - Data as the next Intel Inside
- Adaptivity of the client and the server
 - content, navigation and presentation



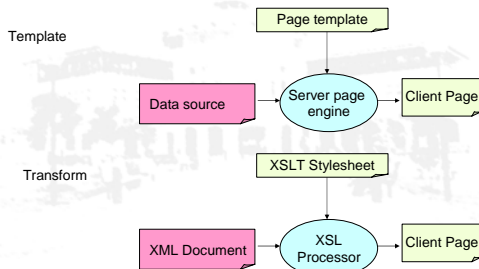
The Web 1.0



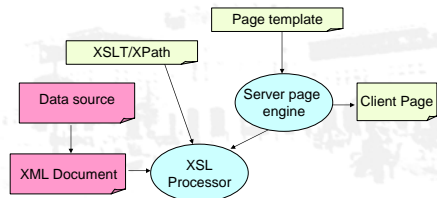
The Web 2.0



Template or Transformation?



Template and Transformation



Device Capability

- It is becoming increasingly necessary to adapt presentation to different device types
 - Desk top browsers
 - PDA browsers
 - Mobile phone micro browsers
- Different devices have different presentation capabilities
 - You can't run AJAX on any device! (yet)
 - Multiple markup syntaxes
 - Multiple software platforms (J2ME, Windows/Symbian etc.)

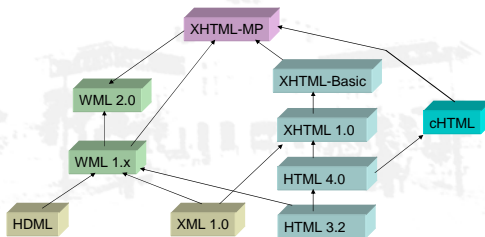


Mobile Client Markup

- There are a number of different types of mark-up for mobile devices
 - WML (Wireless Markup Language)
 - WAP phones, superseded by XHTML-MP
 - cHTML (Compact HTML)
 - For iMODE phones
 - XHTML-Basic and XHTML-MP (Mobile Profile)
 - XHTML compliant subsets
 - XHTML-MP is the recommended markup for .mobi domains



Mark-up Language Evolution



The .mobi domains

- “This domain will have a drastically detrimental effect on the Web. By partitioning the HTTP information space into parts designed for access from mobile access and parts designed (presumably) not for such access, an essential property of the Web is destroyed.”

• Tim Berners Lee



Being more generic

- Adaptive tag libraries like WALL can help us to build content without having to ghettoise the mobile client
- Opera Mobile maybe can support mobile Ajax (includes JavaScript)
 - (Opera Mini is not the same kind of beast)



Summary

- There is something of a tension between the Web 2.0 rich client and ‘programming above the level of the device’
- There is some danger of short term web ghettos
- These will be transient – better to maintain the spirit of the web



P.S.

- Mobile Learning Technologies and Applications conference
- <http://molta.massey.ac.nz>
- February 19th 2007, Massey, Albany

