User Interaction: AJAX Basics

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Building a rich client is harder than building a web page

rich client

rich client

Why have so many non-rich web pages been successful?

Why are those limitations present?

What can we do to overcome network latency?

What does this enable?

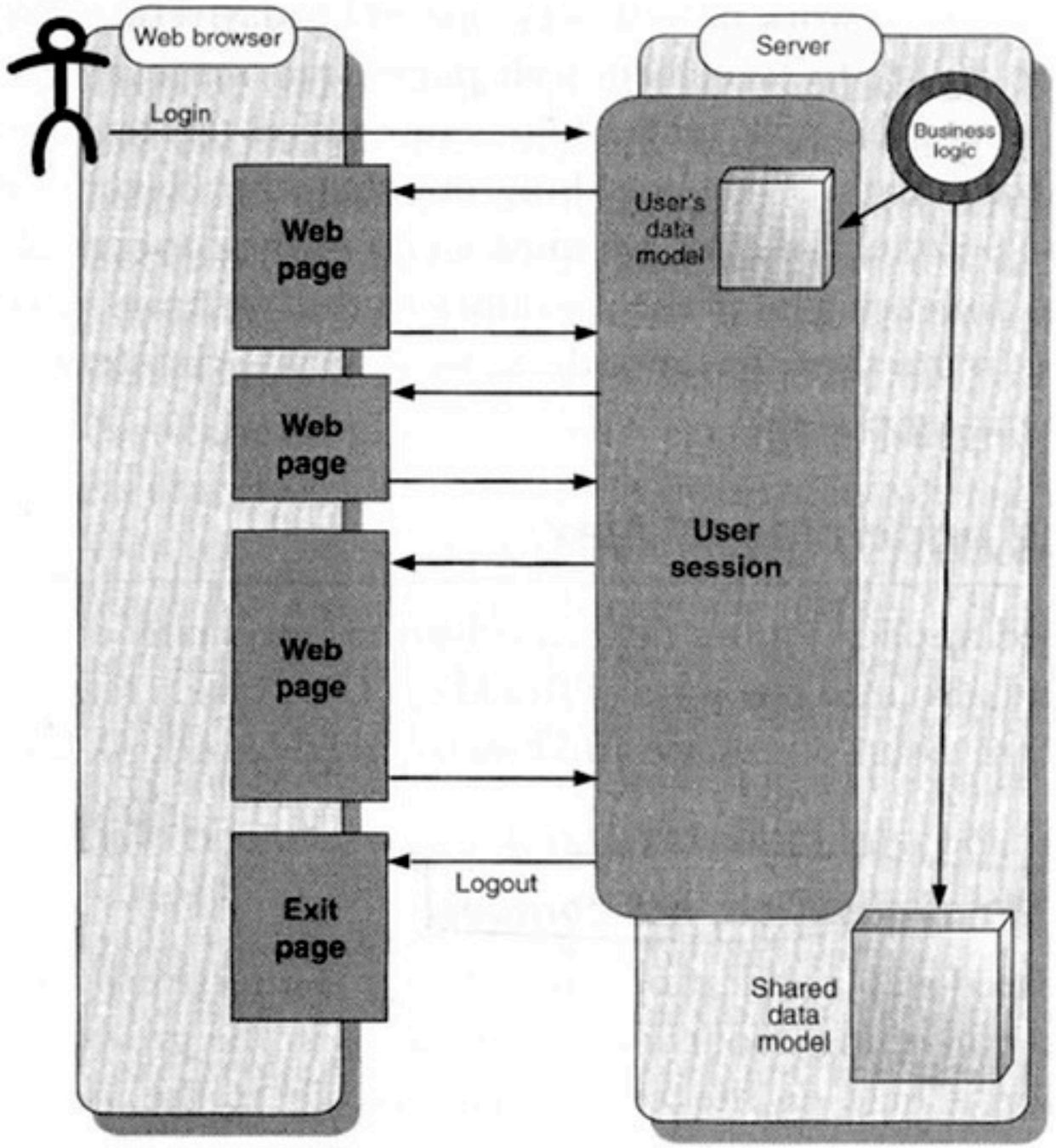
- Defining principles of AJAX

1. Browser hosts an application, not content
2. Server delivers data not content
3. User interaction with the application can be fluid and continuous
4. This is real coding

1. Browser hosts an application, not content

- Web 1.0 model
  - every page is new content
- Web 2.0 model
  - download a program at first
  - every page is new data
- Some server functionality is moved to browser
  - example, the shopping basket is in the client

1. Browser hosts an application, not content



HTML

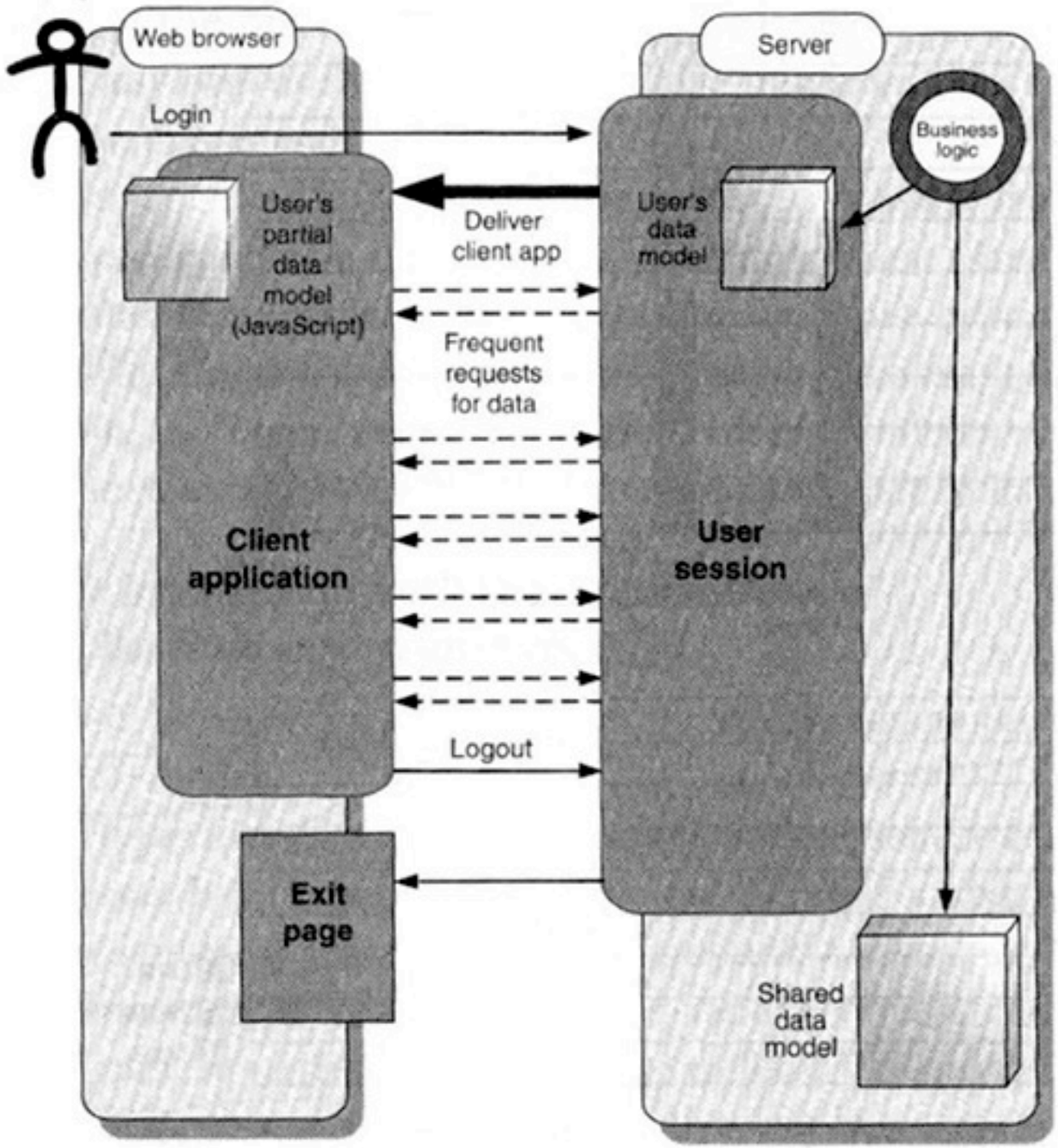
HTML

HTML

HTML

AJAX in action:Crane

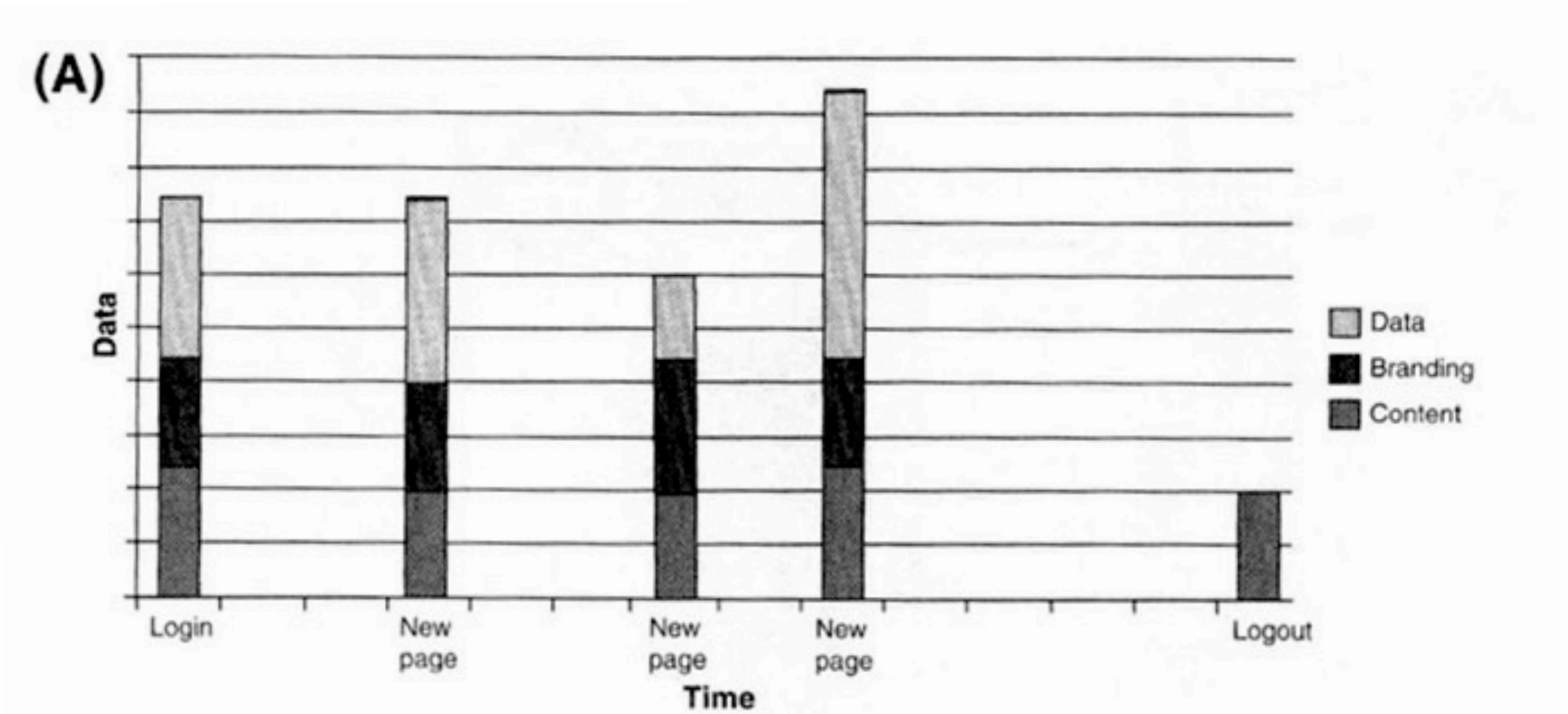
- Browser hosts an application, not content



HTML
Javascript
XML
XML
XML
XML
XML

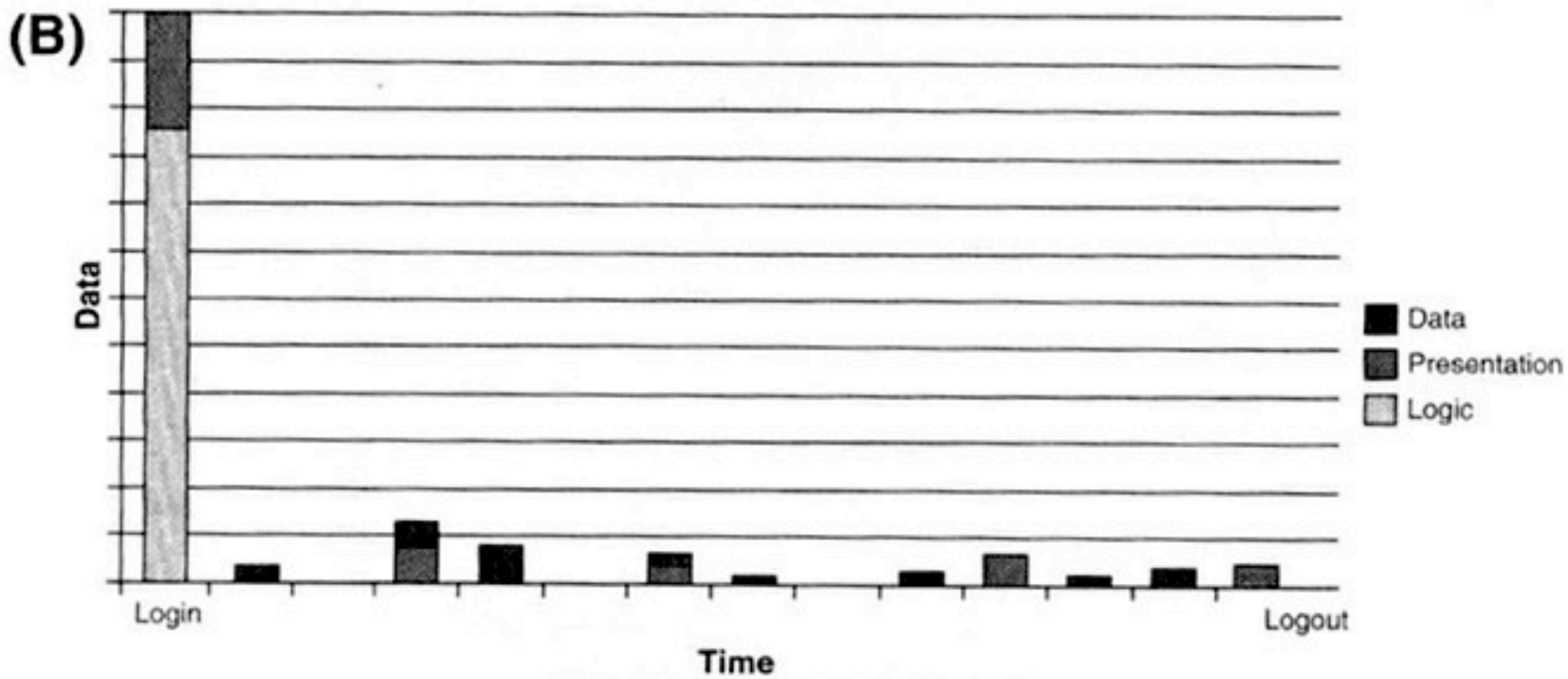
HTML

2.Server delivers data not content



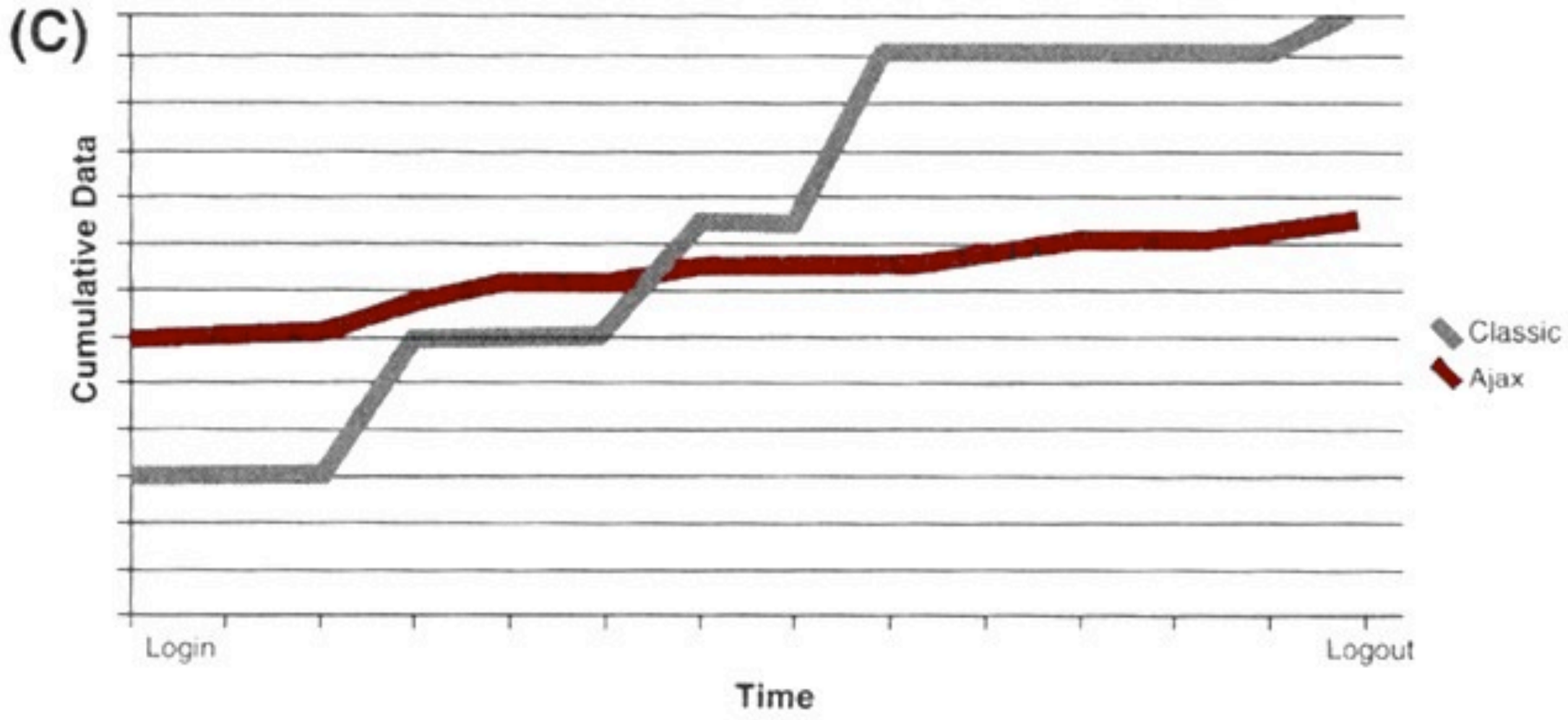
Web 1.0

2.Server delivers data not content



Web 2.0

2.Server delivers data not content



3. User interaction with the application can be fluid and continuous

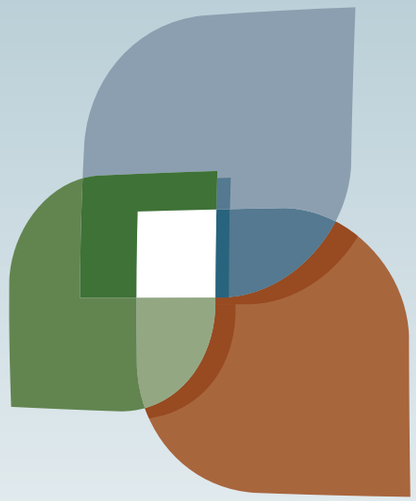
- Typically when a page is submitting data, the user is in limbo
  - Use the shopping cart example
  - Google Suggest
- Sovereign versus Transient Applications

4.This is real coding

- jQuery (http://jquery.com)
- Prototype (http://www.prototypejs.org/)
- ExtJS (http://www.extjs.com/)
  - very good for prebuilt themes and controls, but not very customizable
- YUI (http://developer.yahoo.com/yui/)
- MooTools (http://mootools.net/) - very compact, much smaller than the others
- Dojo (http://dojotoolkit.org/)

- Some good resources

- http://www.ibm.com/developerworks/views/xml/libraryview.jsp?search_by=XML+processing+in+Ajax



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