

Foreword

The Challenges Are Real

Competing in the industry

- Today a company's technology is displayed on the Web for all to see.
- With the hyper-competitive and visually stimulating Web as a display forum, it is easy to see how a company's abilities are judged based on their Website.
- Small bugs or slightly problematic functionality is almost better than the lack of an intricate Web presence.

Meeting company goals

- The number one goal for a company is to meet the needs of business.
- On the high-tech Web, companies quickly find that costs climb rapidly.
- This challenge, meeting the business need and keeping costs low, has a chilling effect on Web efforts for many companies.

Technology for today and tomorrow

- Companies need to make the correct choice in technology, so they can meet their needs.
- Often there is a general lack of understanding around technology and how it is best implemented.
- Even seemingly simple decisions such as presentation architecture become quickly blurred when the detailed requirements and long-term needs are placed in focus.

What Is Right For You, HTML or Java

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Tonight's Discussion

- Are HTML and Java separate or can they be combined to build more robust solutions?
- What are the characteristics of HTML systems and how does XHTML fit in?
- What is typical of Java systems?
- When does HTML not meet the need?
- When is developing a system in Java too much technology?
- Why we need both.

Technologies As Solutions

Do HTML and Java compete

- Often people look at two technologies as if they were in a competition.
- Products compete, but technologies are applied to solve problems.
- HTML and Java are technologies, not products. Their focus is on solving problems.

Applied to the Web

- In the context of the Web, the basic task is to communicate to a client via the HTTP protocol.
- The technologies that are used depend on the nature of the communication requirement.
- The more a requirement needs processing support, the higher the number of technologies that are involved.
- The key question is how much processing support does the requirement need and where should that support be located.

Fitting technologies to the need

- To select the best technology, you must have an honest understanding of the requirements.
- Often companies miss the mark because they allow their understanding of the requirements to be distorted by other factors such as skills availability, budget dreams, hi-tech wishes, or control.
- There are many MS Access ‘applications’ that clumsily service 100+ user communities.

Authoring Technologies

HTML and XHTML systems

- Hyper Text Markup Language (HTML) is a collection of platform-independent styles (indicated by markup tags) that define the various components of a World Wide Web document.
- These text files are processed by a Web Browser and are displayed for the user as a complex formatted document.

Extensible Hypertext Markup Language (XHTML)

- XHTML is an application of XML for "expressing" Web pages.
- XHTML is the follow-on version of HTML 4, except that it is called XHTML 1.0 instead of HTML 5.
- XHTML supports all of HTML 4 markup elements and attributes.
- XHTML can be extended by anyone that uses it. New elements and attributes can be defined and added to those that already exist, making possible new ways to embed content and programming in a Web page.
- An XHTML file looks like a more elaborate HTML file.
- The advantages of XHTML are extensibility and portability.
- XHTML requires strict adherence to coding rules.

Processing Technologies

Java and script systems

- To move beyond a simple static website into a site that is more user interactive, you need to collect information from the user. Also, you will need to process the information and, based on it, return the correct response to the user.
- HTML alone is not capable of collecting information or processing information.
- ‘Form’ tags are the way HTML allows the user to enter information, but these tags do not provide any program processing capability, and do not have the ability to store information or respond to the user.
- To support an HTML document, some type of process will need to be written and connected to the HTML document. This script will work with the ‘form’ tags and carryout the processes, and ultimately respond to the user.

Locations for processes

- The most common location for processes is in the delivered HTML document itself, and is referred to as client side script.
- The most robust location is within the server environment as a separate process, such as a Java Servlet, or included in a pre-delivery version of the HTML document, as with the JSP or ASP technologies.
- Script that is processed by the Web Server environment is known as server side script.
- An applet is an additional way to create a process. It is a dependent application that needs to be run by a Java enabled Web browser. An applet is not JavaScript.

Selecting Technology

When is HTML too little

- When you need a highly dynamic interface. On the Web the competition is fierce, and users expect new graphics and layouts frequently.
- When users are given pages that are tuned to their selections.
- When the user is required to enter information.
- When any form of transaction needs to be made.
- When you have the infrastructure.

When is Java or processing too much

- When your business's Web presence is expected to be limited.
- When customers use your site for static information only.
- When the processing provides no value to your business or the client.
- When you have no ability to fulfill client requests or use the benefits processing may deliver. This will damage the reputation of a company. Even a slow response will hurt you. Clients expect things to be faster on the Web, and if it takes weeks for their request to be fulfilled, they will be unhappy.
- When you do not have the infrastructure or capacity required for processing.
- When you have no ability to provide ongoing support for the technology. There are few things that are worse than an obviously unsupported, 'cobweb' slow, or 'bug filled' site.

Final Points

Be alive on the Web

- If a page's contents are really static, and updating is not needed, still keep the page's look 'fresh' and be sure it conforms to the rest of the Web site.
- If a page's content is static, consider placing an explanation to that fact on the page.
- If a page has any date sensitive information, it needs to be changed on a timely basis.
- Users do not like sites that stay completely the same, and they need to see change. The Web demands it.

Processing is needed

- The market leads companies to use processing frequently.
- Business is now in a world where customers are concerned about privacy, but still want business to know them and react individually to them. Companies cannot meet customer needs without processing.
- There are very few companies of fifty or more employees that can afford to have static websites and not invest in technology.
- Even the smallest companies need to provide a 'good image' on the Web.
- The days of simple flashy sites are coming to a close. The position of Webmaster is yielding to Web-designers who need to work closely with supporting developers.
- Providing the processing and design needed to fulfill market requirements, even for small companies, requires professionalism.