

Optimizing E-commerce content delivery.

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Introduction

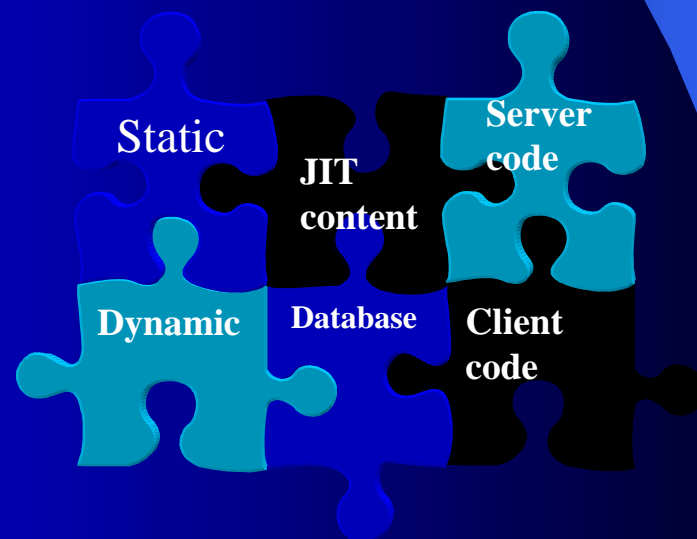
- Content: all that which we view, and in more recent memory interact with, on the web.
- Understanding different approaches to providing content to shoppers is essential to achieving maximum speed and usability of a site.
- Here we will explore some of those approaches and possibilities for content delivery

Agenda

- **High-level basics of web content management.**
5 minutes
- **Highlight the differences, benefits and drawbacks of static and dynamic content.**
10 minutes
- **‘Pseudo-dynamic’ content presentation or JustInTime static content.**
10 minutes
- **Effectively marrying the three approaches.**
10 minutes
- **Summary/Q&A.**
5 – 15 minutes

Overview

- Effective content management: the timely and efficient delivery of targeted data (via the web).
- Emphasis on balancing the use of multiple approaches of content delivery in order to achieve maximum speed to users while presenting them with timely information.



Vocabulary

- To be generated upon final draft.
- Glossary of terms.
- Definition of terminology.

Static delivery

- Basis of our original definition of the web.
- Simple text and html files residing in a pre-determined place on a web server.
- Developers toolbox could be as small as a simple text editor.

Static delivery

- Provides great speed, requiring minimum layers of communication to return the results to a client browsers query.
- Unfortunately the data these pages are based on more often than less ages very quickly – making it obsolete.
- Attempting to keep the information somewhat timely becomes a huge maintenance effort as a site grows.

Dynamic delivery

- Qualified the internet as a valid medium for distributing critical business information.
- Created the necessity for programmers to participate in web efforts or webmasters to start programming.

Dynamic delivery

- Additional server-side process(es) which allow pages, or portions of pages, to be retrieved from a database dynamically.
- Generally involves special tags and/or server code directly embedded in the pages along with the html and javascript.
- Most powerful tools allow for complete separation of the html and server code.

Dynamic delivery

- Real-time database access with the results delivered directly to the client browser.
- No maintenance involved to keep the presented data timely.
- Configuration is more technically involved and can sometimes be proportional to the degrees of distribution.
- The browser request takes longer to get a response since it involves the web server, an application server, a database server and possibly other layers such as ODBC or JDBC.
- An additional resource strain may also be implicated depending on the luxury which is afforded in distributing the processes over multiple machines.

Pseudo-dynamic delivery

- Provides the best of both worlds.
- Speed of static content for end-users (shoppers).
- Timeliness of dynamic data retrieval.

Pseudo-dynamic delivery

- Achieved through the use of a back-end process we can refer to as the publisher.
- Publisher is continually, or at timed intervals, polling the database for updates to the store's information.
- Upon identifying a change, the publisher will replace/create any necessary documents.
- The more intelligence programmed into the publisher the less publishing necessary.

Pseudo-dynamic delivery

- Adapting your dynamic web-content delivery tools is the key to the publisher.
- The ability to alter the output location and have the process run independantly are the simple necessities.
- Instead of piping output back through the web server to a client browser, publisher will output to static files on the server machine.

Pseudo-dynamic delivery

- Shoppers are effectively browsing static content which entails a simple call to the web server for file retrieval.
- Content is based on the most timely version of the data seeing that changes are detected and out-of-date documents are continually being replaced (re-published).

Pseudo-dynamic delivery

- One concern may be the possibility of a shopper browsing content right before publishing, but after a change to a major attribute of an item – say price!
- Fortunately by combining our delivery methods, such concerns are taken care of...

Combining delivery approaches

- In analyzing the actual extent of the pseudo-dynamic timeliness, a natural place to transition to dynamic delivery has been identified.
- At checkout time fully dynamic delivery will display details such as price directly from the database, leaving no room for error at a crucial point of the process.

Combining delivery approaches

- The goal here is to determine how little dynamic content is necessary.
- Maximizing static and pseudo-dynamic content on the site will effectively be maximizing speed of delivery to the end-users.

Combining delivery approaches

- A store administrator is required to be a mainly dynamic sub-system. Essentially viewing and updating store item attributes from the database.
- All shopping cart interaction should also be databased, requiring dynamic content.
- As we already determined, the checkout process also needs to be dynamic – from the display of products in a shopper's cart and their respective attributes to the request to confirmation for purchase.
- Of course any search utilities offered to the shopper also needs to be dynamic.

Combining delivery approaches

- Most of the actual store content, and in effect the brunt of the site, will fall into the pseudo-dynamic category.
- This will include virtually all store, department and product pages.

Combining delivery approaches

- Some logical places to use completely static content include standard header and footer files. A login page which consists of a blank form to request the same information consistently also conforms to this mold.
- These can be used throughout the site and would be updated directly by a webmaster or html resource as required. More often the CSS (cascading style sheet) they are based on will be altered.

Summary

- Defined and explored 3 types of content delivery.
- Identified how to use them in concert and also several logical junctures for doing so.
- Techniques are platform and tool independent.

- Start by prototyping an administrator and publisher for a single, fictitious store.
- Follow-up by defining the desired ‘hand-off’ points between delivery types.
- Add in the dynamic shopping portion followed by admin and publish modules.

- Short question period to address any general and/or pertinent questions.

Where to Get More Information

- Training/experience with HTML and client-side javascript (commonly referred to as 'javascript') beforehand will shorten the path to concrete results.
- Listing of 3 recommended free resources.
- Personally available through the contact information on the business card attached to the presentation material.

Sources

- To be generated upon final draft.
- List of books, articles and electronic sources.