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Content in Motion: What iTunes Can Teach Us About Managing Web Content

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By Piet Niederhausen

GUEST COLUMNIST PIET NIEDERHAUSEN SAYS CAMPUS WEBMASTERS NEED TO THINK IN TERMS OF DYNAMIC CONTENT NOT STATIC WEB PAGES

Terry Calhoun's introductory note: Piet is a very active subscriber to the UWEBD (University and College Web Developers) discussion list who frequently shares his thoughts and expertise on what is simply the very best list of its kind. Interestingly, one of the topics that keeps coming up frequently is how to handle, create, manage . . . whatever . . . event calendars. Such calendars demonstrate the broadest possible range of content providers and epitomize what Piet calls "content in motion."

The Impact of iTunes

Not long ago, my music collection consisted of albums. To listen to a track, I found the right album, put it in a player, and selected a track. If I knew of a similar track on a different album, I might remove the first album, get out the second one, and find the track. But because that required extra knowledge and effort, usually I listened to music one album at a time. iTunes fundamentally changed the way I use the content in my music collection. Once an album is digitized, its tracks are liberated. They can be sorted and grouped at will. My favorite tracks can be referenced from many places. I can tag each track with meta-information and create containers, called playlists, where relevant tracks will automatically appear. The tracks and their meta-information, encoded according to standards, are portable to various digital devices and can be shared. I can adapt my music to create the experience I

want to have. My music is in motion.

Analogous Changes in Our Web Sites

Content on the Web is undergoing a similar transition. Not long ago, most important Web content was hard coded into static Web pages. Web pages were considered a little more advanced than prior forms of content presentation because some Web pages contained links to each other, and because many Web pages were indexed in global search engines. Fundamentally, however, each piece of content was arbitrarily trapped in a document, and it took extra knowledge and effort to get to related content.

An increasing number of Web sites are liberating their content from the confines of the Web page. We are creating structured content, tagging it with metadata, and letting each piece of content roam. We are sorting and grouping our content and creating containers where relevant content appears automatically. (Many of those containers are dynamic Web pages, but others include RSS feeds and Web services). Our content, abstracted from its presentation and encoded according to standards, is portable to different devices and can be shared between applications. We can adapt our content to create the experiences we want our users to have. Our content is in motion.

An Example: Event Information

In higher education, a classic example of content that should be liberated from Web pages is event information. Colleges and universities abound with events, from performances to club meetings. Events are initiated and managed by many different organizational units. Those units have Web sites and can use them to list their events, but only a small audience of visitors to those sites will see the information. Therefore many of us have developed or acquired Web calendar systems, applications where authorized administrators can enter event information and metadata. Events are then displayed individually, in department and institutional calendars, in email newsletters, perhaps even in personalized portals and RSS feeds.

What are the characteristics of event information that motivate us to put such effort into managing events content?

- * Events have shared properties (name, date, time, location, sponsor, etc.) that can be abstracted from the presentation of each event, and event information is more re-usable when this information is presented in a consistent manner. The content is granular and re-usable.

- * To reach their intended audience, events need to leave the organizational unit they originate in and get exposure in more than one place (multiple Web pages, Web sites, and other media). The content needs to be syndicated.

- * Events fall into categories--such as event type, topic, and intended audience--and event listings are more useful if they can be filtered, sorted, and grouped by those categories. The content has metadata.

- * Events are topical and relevant to other content. On a Web page that discusses a particular topic, we want to be able to show events relevant to that topic to give the page more depth. The content has relationships to other content.

- * Being able to aggregate and re-use events from across an institution and show

the depth and richness of its activities is an important institutional goal, beyond the goals of each event sponsor in promoting their event. The content is institutional.

Back to the Big Picture

Once we generalize the characteristics of event information, we start to discover lots of other content on our Web sites with similar characteristics. Some examples typical to higher education are suggested below. The characteristics listed above apply to each one--granularity and reusability, syndication, metadata, relationships, and institutional importance.

- * Faculty profiles, including contact information, biographical information, expertise, publications, research, and connections to courses.

- * Courses, including descriptions, requirements, schedule information, syllabi, and connections to faculty.

- * Academic programs, their offerings, requirements, and connections to faculty and courses.

- * University news, press releases, departmental announcements, and profiles of faculty and students.

- * Organizations, their events, activities, announcements, and members.

At many of our institutions, the de facto process for putting this type of content on the Web is to embed it in a new Web page. Doing that is like creating an album of music, to return to our music analogy. We've frozen content in a single arrangement for a single purpose, when what we really want to do is re-use it and let it flow logically through our Web sites and into other media.

Content from a faculty member's profile, for example, should appear in a university faculty directory; on the Web sites of the departments and research centers the faculty member is affiliated with; in a faculty experts guide for the media; in a Web gateway for a particular research topic; and perhaps even in an RSS feed that updates faculty about their colleagues' latest publications, or a Podcast of the faculty member's latest lecture. In each instance, the content should be automatically linked to relevant related content. And each of those areas of content should flow freely and appear where it should as well.

Getting There from Here

Getting from traditional Web publishing to granular, easily syndicated content objects is no small task. Most of our institutions don't have the resources to make major changes across the board, so it's part of our responsibility as Web professionals to develop strategies that move our institutions incrementally in the right direction. Here are some of the areas I think we need to be working on.

First, as always, many of our challenges are organizational, not technical. Colleges and universities are decentralized. Our content lives in silos, and cutting across those silos to assemble related content for the end user is a challenge. As we've done with other projects in the past, we'll have to prioritize areas where we can gain the most, starting with the key content most important to our individual institutions, and show stakeholders in those areas that change will benefit everyone.

The most fundamental change we'll be asking our colleagues to make is to stop

thinking in terms of publishing specific Web pages, and start thinking in terms of creating self-sufficient content objects that will work well in many contexts. For example, someone who previously wrote a news story specifically to appear on one Web page now needs to write it so that the title, teaser, and body will work whether the story appears on the institution home page, in the student portal, on a department Web site, on a cell phone, or in an archive two years later. And the story needs to be flagged with appropriate metadata so that it will flow into all the news topics, academic disciplines, portal channels, faculty profiles, and RSS feeds where it belongs.

Second, we should be looking for and, if necessary, developing content management tools that are designed to put content in motion. The easiest way to get content on the Web is still to make a Web page, but doing that produces none of the long-term benefits we want. Web content management systems hold great promise, but many are designed or implemented simply to streamline the process of creating Web pages, not to manage content for long term re-use.

Here also, we'll have to prioritize, start small, and work our way up to tools that can manage lots of diverse content seamlessly. At my institution, **Georgetown University**, I try to treat every new Web application as a chance to advance an overall strategy to make key institutional content more portable. Years ago I had the opportunity to create a Web database application for events. When the opportunity to work on faculty profiles arose, the connection to events wasn't obvious. But when we were subsequently asked to manage syllabi online, and then course descriptions, university news, and other content followed, a strategy emerged. We've connected these areas with common metadata, related database structures, and shared tools for syndicating content in multiple ways. Our work is far from complete, we're still discovering what we can do, and it certainly d'esn't work as smoothly as iTunes--yet. But I'm confident that one of the most important things we can be doing is to challenge ourselves and our colleagues to think about content in new, more flexible ways.

Terry's endnote: Yep, he put his finger on it. "The most fundamental change we'll be asking our colleagues to make is to stop thinking in terms of publishing specific Web pages, and start thinking in terms of creating self-sufficient content objects that will work in many contexts." There are times when I doubt this is possible; times when I have a great deal of wrapping my own mind around the concept. I 'get it' but I find it hard to do. When I think of the need to 'educate' all of our content providers, it's easy to be a little pessimistic.

About the author: *Niederhausen is University Webmaster at Georgetown University in Washington, DC.*

Proposals for articles and tips for news stories, as well as questions and comments about this publication, should be submitted to David Nagel, executive editor, at dnagel@1105media.com.