Enterprise-Grade Web Publishing with Drupal

Adapting to the digital revolution

Long accustomed to print-driven publishing cycles, professional publishers now have to adapt to the digital revolution just to stay in business. Certainly many magazine readers are still hooked on hard copy formats; print publications are not going away anytime soon.

But a growing number of readers expect to augment their hard-copy experiences with digital ones, find content online before it appears in print, and have easy access to both current articles and back issues. For their part, publishers need to transform their creation, production, and distribution capabilities, digitize content for the web and mobile devices, and make their digital efforts profitable.

This is where Drupal makes the difference. As a platform for enterprise-grade web publishing, Drupal delivers state-of-the-art capabilities for capturing, organizing, producing, and monetizing digital content.

Publishers can easily manage information for the web, optimize content delivery for search engines and syndication, distribute content to mobile venues, and implement the varied business models they need to build relationships with readers. Let's examine how publishers can adapt to the digital revolution by exploiting Drupal as the content infrastructure for enterprise-grade web publishing.

Beyond fixed formats

When it comes to contemporary publishing, professional publishers are no longer restricted to distributing content in fixed formats — whether they're the printed pages of a magazine or the electronic ones on a web site. Rather, digital publishing has become a dynamic activity, providing readers with relevant

content in engaging contexts. Publishers must focus on their underlying publishing processes. They need to assemble web experiences by paying attention to the twin drivers of their business: the production and the distribution of electronic information.

A digital publication encompasses various content types, including news stories, editorials, and opinion columns. Publishers define these content types based on the editorial character of their publications as well as how they expect to attract and retain readers. Significantly, content types combine the actual information being published with predefined metadata, such as date lines, index terms and other content descriptors. These metadata characterize the content and signal its relevance to third-party web services (such as search engines).

To succeed, publishers need to manage content and metadata within a seamless environment.

The Drupal difference

Drupal supports this seamless publishing environment. It provides extensive capabilities for:
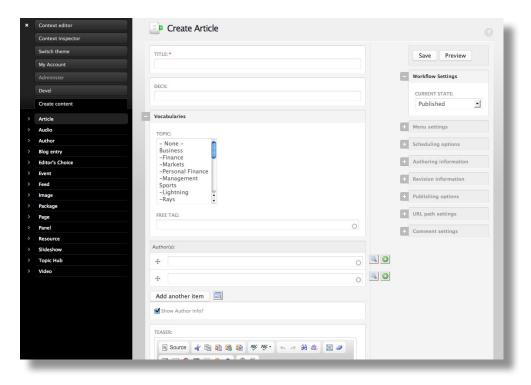
- Managing metadata in the context of creating and editing content

- Enriching content with additional metadata during the subsequent steps of a publishing process

Key to Drupal's success is its flexibility as an open-source platform, built on a contemporary, component-based architecture. Drupal is packaged and delivered as a software distribution that includes predefined modules, specified content types, tailored configurations, and a defined installation profile. Targeted distributions, such as OpenPublish from Phase2 Technology, focus on the needs of professional publishers and deliver the essential capabilities for enterprise-grade web publishing. A Drupal distribution can be deployed to support any number of individual web sites, and serve as the content source for mobile applications.

With Drupal, publishers can structure their publishing processes to meet business objectives. When necessary, application developers can easily extend and adapt a Drupal distribution to support unique publishing tasks by adding or modifying modules. Publishers can organize the content production activities of their staff members, semantically tag their content, and easily distribute and monetize it across the web.

Structuring the publishing process

A Drupal distribution designed for enterprise-grade publishing provides a consistent environment where writing, editing, and publishing tools are accessible within a web browser. To create new items, writers select an appropriate content type from a predefined list and then complete a form to enrich their content with metadata, as shown in Illustration 1. In many instances writers select terms from predefined lists that subject-matter experts and cataloguers have identified beforehand as relevant.

Source: OpenPublish from Phase2 Technology

Illustration 1. Writers select the appropriate content type and then complete a form, which contains both predefined lists and free text elements to tag the content with relevant metadata.

Once the writing is done, it goes into a shared repository. Editors access the unpublished items as required, edit the content, add or modify metadata, and add their updates to the repository. Depending on their roles and access privileges, producers and other staff members can access, review, modify, and approve the most up-to-date versions of individual items.

In short, writers, editors, producers, and other contributors know what to expect. From their perspectives, they are simply accessing a shared repository, adding or modifying fields within forms as needed. The underlying publishing environment maintains the lists of terms, channels their work activities, and produces the published results. As far as they're concerned, Drupal takes care of the details of web publishing.

Harnessing the power of Drupal

For publishers, Drupal makes it easy to create, update, and manage content through successive steps of a publishing process. Included in a Drupal distribution designed for enterprise-grade publishing (such as OpenPublish) are four key capabilities:

- Metadata management

- Semantic enrichment

- Workflow
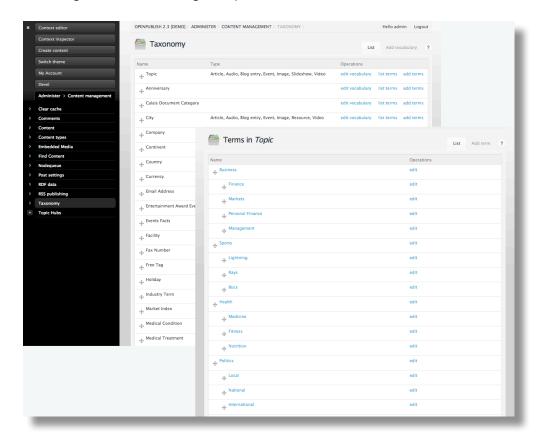
- Distribution across the web

Let's look at each of these.

Metadata management

As shown in Illustration 2, Drupal uses two primary means for enforcing consistent metadata across a web publication.

- Drupal features a taxonomy management module that supports multiple taxonomies. Subject matter experts and cataloguers develop the taxonomy terms that characterize particular topic areas.

■   Senior editors define content types and identify the relevant term sets
     (or "vocabularies") that writers and editors use to categorize information.
     With embedded semantics from these predefined taxonomies, editors can
     categorize content along multiple dimensions.

Source: OpenPublish from Phase2 Technology

*Illustration 2. The integrated metadata management capabilities of
OpenPublish, a Drupal distribution. Taxonomies have list of terms; Drupal
manages how these terms appear in various content types.*

Powered by semantically enriched content, publishers and their senior staff
determine when and where their information is published on the web. For
example, a publisher might decide that only articles with specific tags are made
available for RSS syndication.

Auto-categorization

Publishers do not have to depend only on writers and editors to tag content with
relevant metadata. Drupal features connections to (and easy integration with)
third-party taxonomy management services available over the web.

One example of an auto-categorization service is OpenCalais (opencalais.com), a module developed by Phase2 Technology and incorporated into OpenPublish. OpenCalais (and other web-based services) enriches content with additional semantic terms based on automatic text analysis. Consequently, such content appears "smarter", both on the website itself and on any syndication platform that republishes it.

Editorial workflow

Publishers can tailor workflows in Drupal based on roles and content types. For example, a publisher may decide that editors should review articles before publication, while opinion columns and blog posts should be published as soon as writers complete their items. A publisher may decide that reports written by experienced staff writers be automatically cued for copyediting and publication, while articles by new contributors require additional review by subject-matter experts.
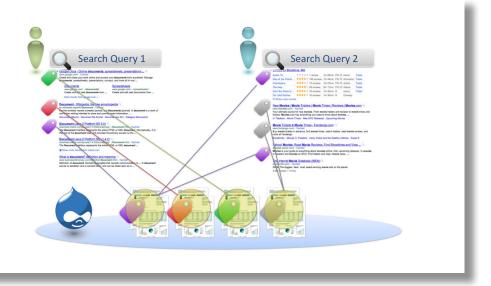
With a Drupal distribution designed for enterprise-grade publishing, publishers can automate and curate their content. They can involve staff members in the review and approval processes as required. By minimizing repetitive and easily automated tasks, publishers ensure that staff members are doing useful work and adding value to the stream of published content.

Ensuring effective delivery and distribution

Embedding semantic signals

Metadata is essential for content distribution. Metadata enables publishers to embed semantic signals into their content streams that search engines, syndication services, mobile devices, and social sites then use to capture (and interpret) content for personalized delivery.

Once tagged with relevant metadata, Drupal can easily optimize search results, organize content for faceted navigation, and make information "more intelligent" for access and distribution. With predefined terms embedded in the content stream, Drupal-powered sites use the metadata to produce web experiences, as is shown in Illustration 3. Search engines, syndication services, social sites, information aggregators, and other content-aware web applications can recognize the metadata tags and use them as signals within their own environments to filter information for their particular audiences.

Source: Acquia

Illustration 3. Drupal tags content with relevant metadata to improve content delivery for search engine optimization (SEO), syndication, and other uses.

Monetizing results

With Drupal, publishers can maintain control over their content and determine how, when, and where they deliver it to predefined groups of readers. A Drupal distribution designed for enterprise-grade publishing provides the content infrastructure that supports various commercial relationships.

Publishers can customize their Drupal distribution to implement subscription-based services, premium pay content, time-based trials for new readers, fees for delivery to mobile devices, or other business models they decide are appropriate for monetizing their content. Application developers can develop and modify electronic commerce capabilities of Drupal to support these varied business models. They can add modules for content merchandising and content optimization, including capabilities to retrieve old articles from a publisher's archive and make them available on a web site.

With Drupal's embedded metadata management capabilities, publishers can easily add the tags required by third-party content aggregators and distributors. This helps them distribute their content through these additional web sites and services, track how content flows, and then monetize the results. Of course, publishers still need to negotiate relationships with third-party distributors. But

About Phase2 Technology

Phase2 Technology designs and develops enterprise Drupal platforms for publishing and media companies, government and non-profit organizations.

Phase2's team of creative designers, business analysts, software developers, and project managers also are passionate contributors to the open-source community building several widely used Drupal distributions including OpenPublish, OpenPublic and Open Atrium. Find out more at Phase2Technology.com.

once they've come to agreement, the embedded metadata provides the glue for tracking and monetizing the content flows, thus automating key aspects of the business relationships. For publishers, the key to a profitable partnership is managing content and metadata through a consistent experience.

Profit from the digital transformation

Professional publishers face the challenge of the digital transformation. Their readers are moving to the web and going mobile. Readers want easy access to information — organized by familiar categories and presented in an engaging environment. Publishers need to be able to augment their print-based publications with digital ones, develop digitally driven publishing processes, and build relationships with their readers across the web, on almost any kind of digital device. Publishers need a platform for enterprise-grade web publishing.

Delivered through a targeted distribution such as OpenPublish, Drupal provides this platform. It combines the content infrastructure with editing and publishing tools that support the digital transformation of professional publishers. Drupal delivers a consistent experience for writers, editors, and producers to make it easy for content contributors to do their jobs. Drupal features integrated metadata management and provides the capabilities to embed semantics into content streams. Finally, Drupal supports digitally driven publishing processes that reach across the web and deliver content to any number of networked and mobile venues. By adopting a Drupal distribution for enterprise-grade publishing, professional publishers can readily profit from going digital.

About Acquia

Acquia empowers enterprises with the open-source social publishing system Drupal. Co-founded by Drupal's creator in 2007, Acquia helps customers manage their growth and scale their online properties with confidence. Acquia's products, cloud infrastructure, and support enable companies to realize the full power of Drupal while minimizing risk, as it's done for nearly 1,500 enterprise customers including Twitter, Al Jazeera, Turner, World Economic Forum, Stanford University, New York Senate and NPR. See who's using Drupal at showcase.acquia.com, and for more information please visit www.acquia.com or call 888-9-ACQUIA.