

WGBH (www.wgbh.com) is the preeminent public broadcasting organization in the country, the single largest producer of television programs and Web content for PBS, and a major supplier of programming for public radio stations nationwide. It broadcasts in New England via two television and two radio stations. WGBH productions and projects have earned more than 100 awards in just one year, including broadcasting's top honors. WGBH is the only broadcaster to win the prestigious George Foster Peabody Award six times in a single year, and they did so twice in 1997 and 1999. Some of the well-known programs produced by WGBH are NOVA, The American Experience, Frontline, Masterpiece Theater, This Old House and the IMAX film "Island of the Sharks."

"The Content Management System has enabled us to manage and publish far more original content than ever before. Using the Web forms and publishing into the templates maintains a uniform look to the site and gives the administrators a great deal of control over how content is delivered. The ACS is a great piece of software, and the Content Management System has really improved our ability to administer our site."

—Tammy Sanders, WGBH Online Managing Producer



THE OPPORTUNITY

WGBH's previous Web service was not meeting the organizations needs, mainly because the site was built entirely with static pages. This made it difficult to: keep the site up to date, coordinate the work, provide users custom views, manage membership information, and provide a community where members could interact.

To address these issues, WGBH realized that it had to upgrade its e-publishing system and provide compelling content that would attract new members and turn their audience into patrons. To meet its needs, WGBH chose the open source ArsDigita Community System (ACS) as the new service's e-business platform. Key to the decision was ACS's flexibility, as well as its robust personalization and content management packages.

SCOPING THE REQUIREMENTS

ArsDigita professional services worked with WGBH to architect the service's requirements. The first rollout incorporated content management, workflow, personalization, and membership account access and security. Collaboration and community enhancements would be added in phase two. Custom wizards would allow WGBH to create and update content, and templates would control the look of the service. ArsDigita professional services would develop the database security and dynamic features.

ORGANIZING CONTENT WITH THE ARSDIGITA COMMUNITY SYSTEM

WGBH delivers new feature articles weekly using ACS Content Management System (CMS). Administrators create content in Web forms, and the articles are formatted dynamically, pulling images and templates from the Content Repository. Although ACS already contains a Content Management System, WGBH needed more features than were currently offered. The ArsDigita development team was able to seamlessly integrate these additional features because ACS is designed to allow modifications to meet the specific needs of organizations and unique business models.

FEATURE CONTENT

To highlight broadcasts and special events, writers use ArsDigita CMS to merge copy, images, online discussions and polls into cohesive articles. CMS provides WGBH a templated structure specific to each of the feature types. Users can select the default full-graphic version or an optional text-based version based upon their Internet connection speeds or personal preferences.

CUSTOMIZED CONTENT

The left side of the WGBH homepage is devoted to displaying personalized content, generated through "Rules-Based Personalization." Once a user logs in, he or she is taken through a list of WGBH-related topics and programming schedules. The user selects topics and programs of interest and the sidebar then displays Information matching the user's selected profile.



COLLABORATING FOR CONTENT

To publish content quickly, the workflow feature of CMS provides version tracking as drafts are passed from authors to editors to publisher with the ability to assign multiple staff members' production roles. All drafts are stored in the database, and therefore immediately available. At any time, the feature can be previewed exactly as it will appear when published. With the publisher's final approval, the feature automatically appears on the site according to its scheduled release date.

AUTOMATIC SCHEDULING

CMS also automates the process of posting TV and radio schedules. Administrators can specify scheduling rules (e.g. "Every Monday from 4:00-4:30pm") for programs. CMS then automatically fills the schedule with each occurrence of the program—saving time and improving accuracy.

MEMBERSHIP DATABASE ACCESS

The database that stores donor and member information is one of the most valuable assets of the organization. The database contains hundreds of thousands of records, and the service's project leaders needed to ensure its security.

Allowing secure access to the database required three steps. First, each member needing to access their existing member information is issued a unique Security Validation Code (SVC) that must be used along with the membership number received when they register. Second, a security filter program was developed that handles all communication between the Web server and WGBH database so that only valid data requests are allowed. Third, all sensitive data is encrypted using HTTPS during transit. Additionally, buffer tables were used to cache membership information, which reduces the demands on the WGBH database and allows the service to function even if the member database is unavailable. Again, the single data model of ACS and its inherent flexibility allowed the professional services team to integrate these database functions into the application's design with ease.

ACS FEATURES DEPLOYED

- **Content Management System (CMS):** Enables WGBH production staff to manage templates for the look of the site, and use Web-based wizards for creating and managing content.
- **User Groups:** Manages permissions for the two public user types and the internal site administrators, editors, authors, etc.
- **Content Repository:** Enables producers to cross-reference all data on the site and to manage how content is delivered.
- **Registration:** Enables users to sign in and manage their personal profiles and membership information.
- **Group Email:** Works with User Groups to enable WGBH administrators to create and send email topical newsletters to specific groups of users. These newsletters are only sent to those users that have indicated an interest in the particular topic.
- **Poll:** WGBH administrators can create and post surveys for immediate user feedback.

CUSTOM FEATURES DEPLOYED

- **Content Administration:** Producers manage version control of articles, configure automatic publishing, and track workflow of content production.
- **Pledging:** A modified e-commerce application enabling users to donate online with credit cards.
- **Content Polls:** Enables posting of surveys.
- **Ticket Reservations:** E-commerce application that enables users to purchase tickets for local events using a credit card.
- **Contest Entry:** Users can sign up for contests to win prizes.
- **Search:** Users can search all of the site's content.
- **Membership database access:** Integrates with the existing WGBH membership database and allows members to view and update information.

TIME TO LAUNCH

Even though the service was rebuilt from scratch, the new WGBH launched in only nine weeks. With ArsDigita professional services leading the site's development efforts, the WGBH team was able to focus on generating content, confident that ArsDigita would deliver the technology on time and on budget. ArsDigita professional services made use of ACS's flexibility to meet the needs of the Web service and ensure a fast development and roll-out.

RESULTS

The new WGBH launched in November 2000. Its improved design and organizational structure make the site a powerful tool for recruiting new WGBH members, eliciting donations and promoting public education. With the new Web service, WGBH can attract an even greater number of people into its online community and raise the potential for donations.

Since its re-launch, WGBH has had an increase of 10,000 page views a day compared to the old site. According to Tammy Sanders, the WGBH Online Managing Producer, "Once we've had a chance to promote the site, I am sure we will see a huge spike in traffic. ArsDigita did a fantastic job with the templates and features of our new Web service. We could not be more thrilled."