Collaborative Website Management Model

As the use of the Internet and websites has matured and proliferated within academic organizations, a subtle but significant shift has taken place. Websites are no longer mysteries of technological complexity to the bulk of their users. Thus, academic website management is moving away from centralized technical operations toward confederations of mid-skilled content managers. Programmers, graphic artists, and web designers are still essential for site development and for integration with institutional computing infrastructure. But the greater challenge today is to effectively organize and manage the creation and maintenance of website content.

Today’s budgetary realities are also forcing institutions to re-assess their operational models. At El Camino, for example, acute shortages in technical support staff together with an even greater shortage in web design and graphic arts staff are forcing us to look for more efficient ways to keep our websites up to date.

Websites for academic organizations are characterized by diversity, both of function and users. As a result, college employees who work across the depth and breadth of the organization, but who may have limited website development skills and experience, are the primary source of the most accurate and up to date website content.

For these reasons, the website management model that best works in today’s academic setting is one that is more coordinated than centralized, one that permits the largest number of website content providers immediate access and support in the creation and on-going maintenance of content related to their particular work areas and one that delegates technical and other specialized functions to employees or work units with those skills or areas of responsibility.

The core function of academic websites is to facilitate communication of the most accurate and up to date information available. The model we discuss here is organized around that core function and we will therefore refer to in the discussion below as a content managed website model.

Functions of an academic website

As academic websites have matured, they have come to play various critical roles in the overall operation of the institution.

Promotion – to present the organization, its divisions, departments, programs and individual staff in the most positive light, one that actively supports the organizational units in meeting their operational goals.

Information – to serve as a source of accurate and up to date institutional information and resources for students, staff and visitors.

Recruitment – to serve as a vehicle for recruiting potential students to specific programs and services and college graduates to the alumni organization.
Communication – to serve as a point of communication among students, faculty and staff and, to a lesser degree, visitors.

Instruction – to house or act as portal to online courses or supplementary materials and services.

Online library – to house or link to collections of text and alternate multi-media academic materials and resources.

Primary users of an academic website
Users of academic websites may play a consumer role or both a consumer and contributor role.

Students – primarily consumers of website content in all the functional areas listed above. Also contributors to student organization websites and to linked areas such as online instruction and student portfolio uploads.

Faculty – some combined use; some consumer-only use. Major contributors to online instruction and personal webpages. Major consumers of organizational information and academic resources.

Staff & Management – combined use. Major contributors to unit and personal webpages. Major consumers of organizational information.

Alumni & Community – primarily consumers of website content for Promotion and Information.

What is a content managed website?
A content managed website is one in which the creation and updating of the site’s informational content can be managed somewhat independently from managing the design and technical aspects of the site.

A typical model includes an update management and approval system paired with an easy to use browser-based editing system. This model allows flexible creating and updating of content by employees who are comfortable with word-processing. It does not require content contributors to have database or web design expertise, only to be comfortable with the computer.

This model also makes efficient use of web design and graphic arts staff. The “look & feel” of content managed sites is designed independently in such a way that best promotes the institution, typically by means of templates produced by a web designer and graphic artist together with the organization’s Public Information representatives. The web designer also works with representatives from other areas to ensure that the site offers the greatest ease of access to users.

As with all networked applications, there is need for technical support staff to ensure smooth integration with other college network and security systems. But in a content managed system technical support staff work mostly with project coordination staff and there is much less need for them to provide direct support to content contributors.
El Camino College’s current model

El Camino’s website began, as did sites for most other colleges, when individuals with the technical skills and inclination taught themselves how to create and upload webpages. The ECC site has grown substantially over the years since then, but the person who contributes pages to the college site still needs technical skills in a variety of areas. These include:

- knowledge of the content to be posted
- skill in page layout for the computer screen so that the content is most legible
- working knowledge of basic HTML
- an understanding of how pages within a “sub-site” should be organized
- an understanding of file types that best work on the web
- basic skills in graphic arts so that pages are attractive, usable, and compatible with the rest of the college website
- knowledge of how to upload files

Also, a website contributor needs to have the interest and time required to design, create, upload, and maintain pages on a regular basis.

The website has become a critical component for information flow at El Camino and it can be expected to grow exponentially for both informational and instructional use over the next several years. However, the number of employees who have the breadth of necessary skills to continue developing new webpages and to continue maintaining what already exists has not grown at the same rate.

This situation is exacerbated by staff shortages resulting from the current hiring freeze. Today, some areas within the website, primarily faculty or program pages, are supported by individual college employees or contracted out. However, practically speaking, there is no one now available to support the rest of the site. As a result, the website is rapidly becoming dated and limited in its effectiveness as a communications vehicle for the college.

Software options for establishing a content managed website

El Camino College and CVC staff now have several years experience developing and maintaining differing versions of content managed websites. Portions of Infonet and the entire CVC Professional Development Center website, for example, clearly demonstrate the benefits of implementing an easy to use interface and distributing responsibility for content maintenance among relatively large numbers of contributors. Among these benefits is more accurate, up-to-date, and interesting website content.

There are various software options for establishing an ECC website. Generally, they fall into three categories. The first is to contract out for full site design and development. This has been done by various departments over the past few years with mixed results. Overall, these sites have been designed as static sites without the option for easy content upgrade and management such as what is being proposed here.

The second is to develop and maintain a content-managed system completely in-house. In order to meet the needs of maintaining an attractive and professional website, this option will require purchasing products such as Manila (used at DeAnza College) or NetObjects or creating a data-driven system from scratch (like that used at CVC Professional Development Center). This option requires extensive programming and networking support staff and several months for software development.

The third option is to license a content-management application such as OmniUpdate (used at Copper Mountain College and CSU Long Beach). This system combines an easy-to-use editing front end for webpage content together with comprehensive workflow and approval capabilities.
The current ECC staff shortages and hiring freeze make option 3 the most attractive alternative. In fact, it is probable that implementing this proposal would be significantly delayed, if it could be accomplished at all, by attempting to develop a content managed system in-house at this time.

Proposed model for ECC public website management
The Academic Technology Committee recommends that the college adopt a management model for El Camino’s website that distributes responsibility for website development and maintenance among those who have the necessary information, skills, or responsibility, and that a single unit be assigned responsibility for coordinating this effort.

Specifically, the proposal includes the following –

- that the college contract for a content managed website software system in which
  - content can be easily created and updated by employees who have minimal website development experience and skills
  - responsibility for contributing content can be distributed across the organization so that content contributors are those who have immediate access to the most accurate and up to date information
  - update management and approval can be managed through use of
    - an automated approval notification system that expedites approval of changed pages by the individuals authorized to do so
    - a management system that incorporates multiple levels of access rights to enable efficient distribution of responsibility for site update and approval in tandem with effective website security
    - a management system that includes tracking and reporting of website activity to facilitate ongoing coordination of the website management project

- that a unit within the Academic Affairs Learning Resources Unit be designated responsible for coordinating the website content management project.
  This unit’s responsibilities will include establishing and working with a Web Team consisting of representatives from the following (and other units as determined appropriate) –
  - Public Relations & Marketing and other college units, to synchronize academic promotion and information with other efforts across the college
  - Academic Technology Committee and other college units, to develop and refine goals and guidelines for website development and upgrade.
  - ITS, to ensure effective linkage with other college websites, and compatibility with networking, security and other college applications
  - Staff Development, to provide training and support to site users responsible for creating and maintaining content
  - Web programmers, graphic artists, and designers, to create and update website structure, page design, and templates
  - Content contributors and approvers, to ensure currency and appropriateness of content
  - Website users, for ongoing evaluation of content and design effectiveness

- that the coordinating unit work with contributors on an ongoing basis to ensure that content is regularly received and updated from across the college

The Academic Technology Committee believes that there are several compelling reasons to house the coordination of the website management project within Academic Affairs.

- When it becomes easy and convenient to create and update webpages, we project that the most rapid expansion of use will be within Academic Affairs. We project that the number of individual faculty sites for instructional purposes will increase from fewer than 70 today to well over 150 within a year. We also project significant activity within department and program sites, both for
updating webpages currently housed on the ECC webserver and for “bringing in” program sites whose development and maintenance has been contracted out.
• There is an environment of collaborative project management found within Academic Affairs that will facilitate effective coordination of a project requiring cooperation and collaboration among units across the college.
• Various faculty and staff in the Learning Resources Unit and across Academic Affairs, as represented on the Academic Technology Committee, are already active in coordinating computer and audio visual technology implementation and use across the college.
• In these fiscal times, staffing for this project will require the use of student and part time employees who may already be employed within Academic Affairs or registered in ECC computing or web design programs.

What this model does not include
It is important to recognize what this model does and does not include. The model proposed here is one for content management of the public El Camino College website and portions of the ECC Infonet.

This proposal does not include the technical support and operational management of other academic applications, such as the Distance Education fileserver, the proposed student portal, course management systems, the college email system, or externally hosted sites.

Again, this proposal assumes that throughout this project, project management staff will work closely with Academic Affairs, ITS, Public Relations & Marketing, Staff Development, and other college units and individuals to ensure seamless and efficient operation with the rest of the college.

Benefits from implementing this proposal
Various benefits accrue from establishing a content managed website for El Camino College such as the one described here.

First and foremost, this proposal facilitates the maintenance of accurate and up-to-date information on the college website by making it possible for those who have the information to be directly responsible for creating and updating webpages. As a source of accurate and up-to-date information, the website can then serve effectively as a vibrant communication vehicle among
• students and faculty for course information,
• college employees for college specific information, and
• the college, alumni, and community for programs and services offered.

Other benefits –
• Adopting a content managed model will result in operational efficiency and cost savings in this period of fiscal shortage. Technical support staff can focus their attention on areas where their skills are most needed. Website design and graphic arts staff can devote their efforts to developing templates and design elements that can be used across the entire college website. College staff who are most knowledgeable about the content that should be on the website are given contributor or approval rights to their webpages.
• Also, adopting a model of this type will significantly reduce the need for projects to contract out for website development and maintenance. Expenditures of this type will be significantly reduced and some dollars budgeted for web development in future projects might be redirected toward helping support the ECC website.
• Immediate access to accurate and up-to-date information will lead to cost savings and efficiency for the college by reducing duplicated effort and time for staff.
• Giving faculty additional opportunities for communicating course information directly to their students 24/7 via the web may contribute to **increased student success and retention**. This increase may in turn result in long term cost savings from repeated and unfunded enrollment.

• Likewise, providing the community with 24/7 access to accurate and up-to-date information will result in **lower cost delivery** of public information related to course registration and other alumni and college sponsored activities.

• Additionally, broad participation in creating and maintaining website content will encourage a **greater sense of partnership and collegiality** among all content contributors and consumers.

**Proposed implementation timeline**

Due to the critical role that the academic website can and does play in Academic Affairs, we recommend the following timeline for implementation –

- **Month 1**
  - contract for content managed website software service
  - allocate funding for supplies and student/casual support staff necessary for project startup
  - assign responsibility for project coordination to organizational unit within Learning Resources Unit of Academic Affairs

- **Months 1 – 3**
  - establish a Web Team with representatives from ATC, Public Information, ITS, Staff Development, and others
  - establish goals and guidelines and draft operational procedures for site content development and maintenance and establish detailed timeline for staging implementation
  - define exact areas of responsibility and communication procedures for future development
  - acquire from ITS full access to current Academic Affairs website together with responsibility for site content development and maintenance
  - lay out site structure and establish preliminary template structure
  - define exact areas of responsibility and establish staffing structure within unit assigned responsibility for website coordination; begin hiring student and casual employees as needed.
  - work with Staff Development to develop preliminary training and support role

- **Months 2 – 6**
  - work with Public Information and college to establish Promotion goals and Look & Feel guidelines for site
  - develop new college homepage and templates for use throughout the site
  - establish library of common page design elements, e.g. campus maps, college logo, organizational charts, templates, fonts, colors, etc.
  - develop procedures for managing software system access for content contributors and approvers
  - work with Staff Development to orient users responsible for maintaining site content

- **Months 3 – 8**
  - bring up site according to staging timeline
  - continually evaluate website design and project operation and make modifications as required

- **Life of project and beyond**
  - Project Coordinating Unit and Web Team work closely with all areas of the college to maintain effective and efficient website that meets the goals of the college and each of its units and staff

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1 i.e.: focus groups to determine accessibility, and usability: see PCC
http://www.paccd.cc.ca.us/stulrsnv/lnres/mediactr/irc/collectgroup-results.htm
- Project Coordinating Unit and Web Team work closely with ITS to ensure smoothest possible coordination among college websites, other applications, and staff responsible for supporting them.

**Estimated resources required** –

<table>
<thead>
<tr>
<th>Staffing</th>
<th>Position</th>
<th>Responsible for…</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web Team</strong></td>
<td>Representatives from Project Coordination Unit, Public Relations &amp; Marketing, ITS, Academic Technology Committee, Staff Development, and content contributors from Academic Affairs, Administrative Services, and Student and Community Advancement</td>
<td>working with Project Coordinator and technical support staff within a collaborative structure to ensure effective and efficient distributed website development and management</td>
<td>current load – ordinarily monthly meeting schedule with additional meetings scheduled as needed</td>
</tr>
<tr>
<td><strong>Project Coordination Unit</strong></td>
<td>Project Coordinator (administrator or faculty coordinator)</td>
<td>working with Web Team, technical support staff, ATC, Academic Affairs, and other college units and individuals who contribute to website content</td>
<td>current load or added assignment of +/- 30% load equivalent for first 3 months; probably 10-20% after that. This should result in some reduced load for other college staff currently working on website coordination.</td>
</tr>
<tr>
<td></td>
<td>Assistants (casual &amp; student employees)</td>
<td>working with Project Coordinator and content providers and other site users</td>
<td>50% fte x 1 yr</td>
</tr>
<tr>
<td><strong>Technical Support</strong></td>
<td>Web Designer</td>
<td>working with Web Team, Project Coordinator, and Public Relations in developing site structure, website Look &amp; Feel, and coordinating 1st level technical support for end users.</td>
<td>part of current assignment for Staff Development trainer/ web designer</td>
</tr>
<tr>
<td>Role</td>
<td>Description</td>
<td>Hours/FTE</td>
<td>Cost</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>Graphic Artists/Website Designers and Website programmers^2</td>
<td>working with Web Team and Project Coordinator in helping develop and maintain website templates and providing 1st level technical support for end users.</td>
<td>50% fte 20 weeks</td>
<td>$4000</td>
</tr>
<tr>
<td>Programmers (ITS)</td>
<td>working with Program Coordinator and Web Team to coordinate public website with other ECC applications and resources (e.g. WebAdvisor, ECC Directory)</td>
<td>current load – minimal demand expected</td>
<td></td>
</tr>
<tr>
<td>Network support staff (ITS)</td>
<td>working with Program Coordinator and Web Team to coordinate public website with ECC infrastructure (e.g. webservers,)</td>
<td>current load – minimal demand expected</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>Trainer (Staff Development) providing orientation and training to website contributors and approvers</td>
<td>current load</td>
<td></td>
</tr>
<tr>
<td>Content Contributors and Approvers</td>
<td>Staff, faculty, and students as identified by managers of content providing units (e.g. divisions, departments, programs, individuals)^3 contributing and updating content and/or approving contributions for assigned web pages</td>
<td>current load</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subtotal - staff</td>
<td>$12,200</td>
<td></td>
</tr>
</tbody>
</table>

2 It is anticipated that in the foreseeable future these ECC staff would be mostly students and casual employees working under the supervision of a full time employee, perhaps organized similarly to the previously successful Internet Assistant program. However, it is assumed that after the initial design work is completed, there would be less need for this type of employee. Perhaps then could be moved to a permanent support service for instructors who are working to develop online instruction for either distance or hybrid instruction.

3 These will probably be the same persons who are currently responsible for print and email communications and correspondence within each department/program.
<table>
<thead>
<tr>
<th>Content Managed Website software and service</th>
<th>OmniUpdate (recommended)</th>
<th>Website content authoring, approval, and content workflow management system</th>
<th>annual license</th>
<th>$16,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software &amp; Office Supplies</td>
<td></td>
<td>for project coordination, graphic/web design, and contributor training and orientation materials</td>
<td></td>
<td>$3000</td>
</tr>
<tr>
<td>Equipment</td>
<td>webserver</td>
<td>it is anticipated that project will use existing webserver or new server recently purchased through grant funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>equipment for project coordination</td>
<td>project will use existing computers and printers in work area of unit assigned to coordinate project</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>equipment for web design</td>
<td>it is anticipated that project will use existing computers and printers in Staff Development and/or LMTC for web design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>equipment for training</td>
<td>project will use existing computers and printers in Staff Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>equipment for contributors</td>
<td>contributors will use existing equipment in their work areas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix

Proposed Website update management model (based on Cerritos model & many other colleges)

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>College pages</td>
<td>Department/Program pages</td>
<td>Individual pages</td>
</tr>
<tr>
<td>ECC template required</td>
<td>ECC template required</td>
<td>ECC template recommended</td>
</tr>
<tr>
<td>Approver – Public Relations</td>
<td>Approver – Manager or designee</td>
<td>Approver – Content Contributor</td>
</tr>
<tr>
<td>Content Contributor – Public Relations or designee</td>
<td>Contributor – assigned by manager. Person ordinarily responsible for producing department/program information for dissemination.</td>
<td>Contributor – individual</td>
</tr>
</tbody>
</table>

Reviewed for currency on scheduled basis by Coordination Unit staff

Estimates of workload for sample project tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Average Time</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create new page content</td>
<td>2.5 hr/page</td>
<td>Contributor</td>
</tr>
<tr>
<td>Edit page content</td>
<td>10 min/page</td>
<td>Contributor</td>
</tr>
<tr>
<td>Approve page change</td>
<td>5 min/page</td>
<td>Approver</td>
</tr>
<tr>
<td>Template series design</td>
<td>3 weeks @ set</td>
<td>Web Designer/Public Relations/Web Team</td>
</tr>
<tr>
<td>Website Look &amp; Feel Design</td>
<td>1 mo/original</td>
<td>Web Designer/Public Relations/Web Team</td>
</tr>
<tr>
<td></td>
<td>1 mo @ alternate</td>
<td>Web Designer/Public Relations/Web Team</td>
</tr>
<tr>
<td>Contributor/Approver Training</td>
<td>3 hours</td>
<td>Staff Development</td>
</tr>
</tbody>
</table>

Comparison of OmniUpdate Website Management System and Academus College uPortal System

OmniUpdate is a web based solution that makes it possible for higher education faculty and staff to easily create, update, and maintain designated pages of departmental and campus websites without HTML or programming knowledge. It simplifies the process of keeping web sites up-to-date by allowing those responsible for the web content to actually make the changes instead of continually funneling work through a central IT area.

The OmniUpdate application
- includes a browser-based word processor-like editor that is easy to use by college employees across the institution
• allows multiple content contributors, thereby distributing the work and eliminating the web-maintenance bottleneck
• includes a streamlined workflow approval process that saves hours of coordination and production time and reduces the need for training and support
• reduces dependence on in-house technical staff and resources
• provides the ability to manage multiple user accounts with a fine-grain level of control, assuring that users are given access only to functions, areas of the webpage, or areas of the site for which they have been granted responsibility
• includes an email-based approval process that assures that content is approved before being published on the live web server

The Academus™ Portal solution provides college faculty, staff, and student users access to resources, instruction and institutional services with an easily personalized portal page. Many institutions run a personalized portal page service parallel to the institution’s public website.

The portal page can be configured by the college to provide links to Campus Announcements, Campus Resources, Classified, News, Notifications and Help. The user can further configure his or her personal portal page with an Address Book, Bookmarks, Briefcase (for files), Notes & Reminders, Personal Calendar, and access to email. Here is a typical example from UC Irvine.
Software quote
See attached.