

SchoolSite Web Communications System
The Website Software Model
Originated at Hilltop High School
www.hilltoplancers.org

HTML is a four-letter word

By Rick Lakin and Chris Cherry

Within a comprehensive high school there are a number of separate communities. Members of each of these communities send and receive large amounts and varied formats of information through many different media. The school administration disseminates information through memos, bulletins and meetings to the other groups. The staff facilitates this communication by formatting and distributing much of the important information. Faculty members facilitate communication to students and share ideas with other faculty members through collegial communication. Students receive information from all of these sources and share it in many ways. Parents, Alumni, and the Local Community also exchange information by mail, phone calls, attendance at school functions and indirectly from students and from the media.

In November of 2002, Rick Lakin, a technology teacher, and Chris Cherry then a junior in the Academy of Information Technology had the opportunity to begin this project as editor and programmer/designer respectively of the Hilltop High Website. Since then, they have developed the website software and design into SchoolSite, Web Communications System a comprehensive web-based content authoring system that streamlines communication among all of the groups who are a part of a comprehensive High School.

SchoolSite consists of a number of components including:

- AutoStory – This application allows a user to quickly post a headline and text that might include HTML formatting to one or more sections on the website with a number of formatting options
- AutoAssign – Teachers can easily post assignments by date and period with information and web links.

- AutoPhoto – Used with AutoStory, this application allows the user to post photos, captions and bylines within the story.
 - AutoCal – Calendars are posted to various sections that include time, event and more information.
 - AutoSite – User-based system that allow users to post to specific assets as well as Virtual Home Pages.
 - Alumni Registry – This application collects information about alumni and allows the alumnus to post their name and e-mail to share with classmates on their Class Of page
 - AutoPoll – A question and answers can be posted and answered by users who then look at the cumulative polling statistics.
 - User Administration – Allows administrator to add users and assign assets where the user can post.
 - Asset Administration – This application allows the administrator to add pages or sections where AutoCal events or AutoStories can be displayed
 - Virtual Home Pages – When a user is added a VHP is created where the user can post assignments and AutoStories.
 - Network Communications - Publish our website information and subscribe to outside information using Real Simple Syndication (RSS)
 - AutoLink – Teachers and Authors will be able to create Hotlists with links and information that is useful to readers.
- (Implementation: Fall 2004)

Before November 2002, Ms. Susan Head, the Library Media Specialist, did an excellent job providing interesting and valuable information using Netscape as the authoring tool and uploading to the server. When Cherry and Lakin took over, they began by updating and standardizing the look. It was felt that since the goal was to provide content that a simple standard design throughout the site would be most efficient. Improvements included an updated menu and directory structure and included LancerLinks along the right column that provide links specific to each section.

In the beginning of 2003, Chris Cherry converted the site from HTML to PHP code. PHP is a programming language that is run on the server before the HTML is interpreted. There was a need for a calendaring system and the solution was called AutoCal. The first iteration was based on many individual files that were read in by the PHP code and that version served the site for over a year. During the first quarter of 2003, Chris Cherry also

learned and implemented the use of MySQL a server-side database system. This system allowed content to be stored as a part of a database, the creation of story archives, and other types of data collection such as the Alumni Registry and a Feedback system. AutoStory was the most important outcome, allowing the administrator to publish stories to any section without having to edit a file using a text editor. One request from an administrator was the collection of data on Hilltop Alumni. The Alumni Database that has grown to over 500 members to date. When an alumnus registers, their name and e-mail immediately appear on the Class Of page and their data is stored for use by site personnel to contact alumni, plan activities, and do fundraising. Other applications allowed by MySQL include AutoPhoto, AutoPoll, and a system wide Hit counter to measure the use of our website and each of the sections.

The fall of 2003 saw the migration to a multi-user system. Up to that time, only one user could post stories or author content. Upon implementation of the AutoSite system, many users including administrators, teachers, counselors and coaches as well as student reporters began to post information to any section for which they had permission. Cherry also created Virtual Home Pages for teachers. These pages allow teachers to login, author text information using AutoStory and post Assignments for students by using AutoAssign. Mr. Jared Phelps, our Latin Teacher and other teachers are using this on a routine basis. Phelps gave us valuable feedback for AutoStory and it has grown into a mature system that is easy to use with many robust features. The most recent application to receive an update is AutoCal, which is a now multi-user and databased allowing user to add events and maintain a number of calendars. AutoCal has much promise and through use and upgrade will include many more features.

In March 2004, we began serving the second SchoolSite at Granger Junior High (<http://gjh.suhsd.k12.ca.us>). This expansion will bring many challenges and much promise. The biggest challenges for expansion are improving portability, implementing the software within various site designs, and maintaining and upgrading software on multiple servers and platforms. The promise lies in the possibility of networked content and better cross-site communication.

The future of SchoolSite is promising. Current projects include AutoLink and AutoQuest. These two applications will allow teachers to

build hotlists for students to use at home and in the lab to complete assignments. AutoQuest will follow Bernie Dodge's WebQuest model and allow teachers to effectively build WebQuests on their own pages without having to program using HTML. Other projects on the horizon include SportSked that will allow coaches and team members to post timely information about their Athletic Teams. We intend to expand Virtual Pages to support clubs, organizations and athletic teams and allow students to act as reporters.

With the implementation of multiple sites running the SchoolSite system, it is our goal to focus and improve the quality of Networked Communications. The authors have begun that implementation with the use of Real Simple Syndication (RSS). RSS is an emerging technology that allows sites to publish their pages in a barebones data format to which other sites can then subscribe. The Hilltop Site currently publishes our main page and our athletics page. We subscribe to a number of sites on our News and Links from Everywhere page. The future plans include SchoolSite News Network where users post information on one site and it shows up as an AutoStory or AutoCal event on other sites. Stories may appear in local sections or there might be a separate section for Network News.

Our most current project is to implement AutoLink, a method of managing hyperlinks throughout the site. Teachers who wish to create a hotlist for students attending class in a computer lab requested this project. The promise of AutoLink will be to ease the handling of hypertext throughout the site, especially in the LancerLinks column. The future promise is that teachers will be able to quickly produce project-oriented assignments similar to the WebQuest model developed by Bernie Dodge and Tom March at San Diego State University.

Al Rogers of the Global SchoolNet Foundation said, "Students will write when they have a sympathetic, interested audience and something to say." The SchoolSite Web Communications System will facilitate improved communication as teachers, administrators, counselors, coaches, parents and district personnel as well as students share information to a sympathetic and interested audience.

Rick Lakin, author of this article, teaches mathematics, web design, and video productions at Hilltop High School, Chula Vista, California and is the "netitor" of the Hilltop High Website as well as collaborator with Chris

Cherry on the Design and functionality of the components of the SchoolSite Web Communications System

Christopher Cherry, co-author, is a 2004 graduate of Hilltop High and was a member of the first graduating class of the Academy of Information Technology at Hilltop High School. Chris has completed professional quality products on various media including web, video, and print and has programmed the components of SchoolSite using HTML/CSS, JavaScript, PHP, Flash, and MySQL. Chris is currently beginning a career as a web programmer and consultant and can be contacted at chris.cherry@cox.net