

History of the Web at YSM



The Yale School of Medicine has maintained an active web presence since the early days of websites for educational institutions, launching its first public website in 1994. YSM was one of the first medical schools to offer online applications for admission, and from the 1990s to the early 2000s various departments and organizations within YSM independently generated and managed more than 400 websites.

Today, the school's web presence is unified by a professional set of templates, powerful applications centrally distributing content, and a dedicated team tasked with supporting the school's more than 500 websites.

The Initial Landscape

The independent creation and management of so many websites in the early days inevitably led to many issues, including a great range in quality, difficulty keeping content up to date, much duplication of content, and almost no coherence or consistency among sites. To satisfy the growing demand for quality and consistency, in 2006 Dean Robert Alpern created a dedicated team to manage the School's websites and create systems to support those websites. The team was tasked with creating a "world-class web presence" for Yale School of Medicine. With its three-person staff, the school's new Web Group set out to define what a world-class web presence would look like, and to develop the tools to succeed in its mission.

Initially, the task facing the Web Group was daunting. During the decades of decentralized web development, the landscape had become treacherous to navigate:

- There were more than 400 website "owners" at YSM, some of whom were more receptive to centralized infrastructure than others.
- The web server hosting most of YSM's websites had frequent security breaches, and the underlying technology was already 10 years old.
- The School's event calendaring system was 12 years old and written in a programming language no longer supported by anyone at the University.
- Many of the more than 400 websites used different technologies, including HTML, Flash, PHP, etc.
- Each of the websites used different templates and designs.

- Most organizations had to pay the university's IT department or external vendors to design and then maintain their websites, creating issues with budgets and delays in content updates.
- There were no underlying web editing or content distribution systems, such as a web content management system or faculty database.

A Template Emerges

The Web Group's first task was to create a YSM-branded "template," a layout and design scheme that would eventually unify all of YSM's websites. This consistent branding would help sites reflect their membership and position in the YSM community, and would provide online visitors with reliable guideposts as they navigated this complex institution.

Working with the Yale [Office of the Secretary](#), the [Office of the University Printer](#), and [Information Technology Services-Web Services \(ITS-WS\)](#), YSM's [new Web Planning Group](#) drafted a unified web template in 2006 that created a clearer and more consistent experience for online visitors to the Yale School of Medicine. The design of the template was guided by the University's main website, www.yale.edu, helping to visually identify YSM as a member of the Yale community.

In February 2007, the Group launched its first website in the new template, the newly created [Department of Immunobiology](#). In addition, the group began professional photo shoots for each website that was moving into the template. By 2010, the Group had completed more than 200 photo shoots of faculty and staff in "action" at YSM, archiving more than 400,000 photos.

During the remainder of 2007, the Web Group, working in conjunction with ITS-WS, launched another 50 websites, including the main YSM website at medicine.yale.edu. By late 2007, the Web Group realized that to redesign all YSM websites and permit easy updates by owners, YSM's websites would need to be hosted in a single web "content management system" (CMS).

After an exhaustive search, in March 2008, the Web Group selected the SDL Tridion web content management system and negotiated its purchase. Implemented in August 2008, the system reduced the time to build and launch a YSM website from an average of 15 meetings and 100 hours to three meetings and 35 hours ([see a comparison](#)). In addition, organizations were able to begin making changes directly to their websites using a web-based editing tool that anyone could learn.

By the end of 2008, the Web Group had completed 98 websites and dramatically altered its business model to bring all website building in-house. By consolidating website building efforts to a dedicated team of 10-15 students and several staff members, the school was able to save money and increase the quality of its websites. An additional 100 websites were launched in 2009.

Increasing YSM Efficiency

Before the Web Group came into existence, the School of Medicine's decentralized web presence meant the school could not take advantage of the efficiencies and economies of scale that the Internet offers. Once the Web Group could confront these needs directly, it conceived and began planning for multiple web-based applications.

In 2008, the school launched the first three applications:

- A [resource scheduler](#) for departments to track, schedule, and charge for the use of their lab resources.
- A [clinical trials database](#) to collect and display on the web all clinical trials at YSM.
- A student-focused portal: MedStation.yale.edu

2009 was a year of significant progress for the school's Web Group. It launched an award-winning [faculty profile system](#) that centralizes management for all of the estimated 16,000 faculty pages on various YSM websites, saving the school an estimated \$1M annually in staff and resource costs. It also launched a [secure online form builder](#), which allows web content owners to create HIPAA-compliant interaction with users, and a [media library tool](#) that enables content owners to incorporate videos seamlessly into websites.

In 2010, the school completed a string of major projects, bringing it much closer to its goal of a "world-class" web presence, including:

- A new online [event calendar system](#).
- A new system for faculty and their staff to create and maintain lab websites.
- A completely revamped web templating system, called Template 2.0, which updated the branding, look and feel of YSM's websites. With the launch of the new template in September 2010, more than 300 websites' look and feel were simultaneously updated and functionality increased tenfold.
- The next generation of Tridion's web content management system (Tridion 2011), which gave website builders and editors complete cross-browser support and dramatically increased the system's speed.
- The Web Group trained its 300th website editor and launched its 400th website.

Building Services

In 2011, the team formalized a suite of services to better help the school's organization create and maintain a professional web presence: Website Building and Website Editing. The new service lines both generated revenue to help fund the school's future web development and created a method to help organizations without their own people resources to maintain their website.

In addition to website services, the team created a more robust training and support platform, offering website editors a dedicated support telephone line, email, detailed help videos and instructions, and the option to work directly with our support staff through a screen-share or in person in small group training sessions.

To further support these new service and support initiatives, the Web Group added two new members: Justin Navarro to manage the ISP and Liz Pantani to provide front-line administrative support.

The school also launched the [Yale Cancer Center](#) website, integrated clinical trials into Tridion so they could be displayed on organization websites, launched the Weekly Digest email, lab website template, [SiteCheck](#) broken link reporting, and further enhanced to school's web applications.

In 2012 the last remaining major organization websites were moved into Tridion. The school's official printed publications, [Yale Medicine](#) and [Medicine@Yale](#) were rebuilt and given a dynamic new digital publishing platform. To further external communication, the school launched its News System, a publishing tool that allows organizations to enter news content, tag it with organizations and people and have that news article distributed to the appropriate websites.

By the end of 2012, the school's websites and systems were completely transformed from their initial state when the Web Group was created in 2006. Going beyond its initial goals to create a common web template, the school created a professional world-class communications platform that includes powerful applications and tools to equalize how content is communicated to both internal and external audiences, supporting the school's mission to educate, research and provide patient care.

A Complete Overhaul

In 2013, the school began plans for a complete overhaul of its core systems, beginning with the Faculty Profile System. The team was re-organized to bring in-house more development, further enhance support for editors, and expand our services. Dan Poincelot joined the team as a software engineer and immediately began the arduous task of rebuilding the profile system.

In 2014, with the profile system rebuild in full swing, we also began making plans to completely redesign the web templates -- making plans to release Template 3.0; upgrade to Tridion 2013, and rebuild the Clinical Trials system. This overhaul is Phase 1 and launched in July 2015.

As if a sign for the overhaul's impending success, at long last, the original School of Medicine web server, info.med.yale.edu, was completely decommissioned in 2014.

Going forward, the school will continue to make advances in its websites and the underlying technologies, enhancing functionality with improvements like an integration with PubMed in the faculty profile system, and the ability to better track and display information like grants and courses taught.

The Web Group continues to grow and develop the concept of a “world-class web presence” for Yale School of Medicine. As they continue to integrate and strengthen the tools they have invested in and built, they will also look for more opportunities to serve the three core missions of research, education, and patient care.

The school's Web Group remains dedicated to advancing YSM's tradition of excellence in medicine through its online presence. The Group achieves that goal with a focused team of six full-time employees, assisted by a talented cadre of Yale students.