AAMC GIA Awards for Excellence Competition 2015

Category: 2B: Electronic Communications: Websites

Title: Duke School of Medicine Web Design and Development Framework

Submitted by: Jill Boy & Beky Branagan, Duke University School of Medicine
                     Anton Zuiker & Elizabeth McCamic, Duke Department of Medicine

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Summary

The School of Medicine faced an urgent need to update nearly all of the Web sites for the School, its major offices and programs, and its 22 departments. But without central support or guidance, School communicators collaborated to devise a framework for efficient, cost-effective Web development across the School. This project resulted in a free toolset, available to any School department or unit. It has successfully enhanced the School of Medicine brand and dramatically improved how we are able to reflect the vibrant research, clinical care and medical education activities of our faculty, trainees and students.

Problem

In Spring 2013, the School of Medicine received notification from Duke Health Technology Services (DHTS), the Duke health system's IT organization, that it would no longer provide Web development services for the School of Medicine. At the same time, Duke Medicine Office of Creative Services was reorganized and also would not provide design support to the School. These developments left the School and its units without any guidance, tools or staff to develop or maintain its nearly 150 Web sites.

In addition, DHTS informed the School that 30 of the School's sites using XOOPS, an outdated content management system (CMS), would shortly be out of compliance with server security protocols. Meanwhile, the remainder of the School's sites, many using an older version of the Drupal CMS, would need to be upgraded within five years to remain in compliance.

Reviewing all the sites that fell under the School of Medicine, we also identified other problems:

• Sites had inconsistent branding and design, displaying a variety of logos and icons. Some sites did not identify that they were in the School or even at Duke University.

• Many sites were based on static content templates and presented major CMS and design limitations: poor navigation, difficulty in featuring images or videos, and a restricted flow of current news (including permalink pages for each news item). For example, when Dr. Robert Lefkowitz won the Nobel Prize for Chemistry in October 2012, we had no good or exciting way to feature the honor on departmental or School sites.

• Many sites clearly should have been part of larger sites. For example, the Department of Medicine had 18 standalone sites for its missions, divisions and programs, and the School itself had a variety of administrative offices with separate sites, including Admissions.

All of this meant that Web visitors — including our own faculty, staff and learners — found it difficult to locate information within the sprawl of our sites. And, visitors weren't getting a good picture of the current activities and strengths of the people in the School of Medicine, especially as our School has become more interdisciplinary and full of team science.

While DHTS would continue to serve as secure Web host for our sites, the lack of central support for Web strategy and development was an important problem to solve. The School has a central office of communications with two full-time staff. However, there are more than 50 communicators, Web managers, and communications liaisons in individual departments and units. They have separate budgets, report to their respective chairs or directors, and are expected to provide local leadership and strategy implementation. We were afraid that each of them was about to set off on complex, expensive Web redesign projects with no branding alignment, while units without a communicator would have no course for improving their sites.

Solution/Strategy

The School of Medicine central office of communications and the Department of Medicine communications office proposed a project to collaboratively develop guidelines and tools for Web development and brand alignment that could be used across the School to upgrade the legacy XOOPS and outdated Drupal sites, as well as serve as a blueprint for future upgrades. This plan got enthusiastic approval and support from Nancy Andrews, MD, PhD, dean of the School of Medicine, and Mary Klotman, MD, chair of the Department of Medicine.

It was essential to include DHTS and the Duke Office of Procurement in this partnership. These groups would help us ensure that new sites would be secure and functional and able to be hosted on DHTS servers, while also providing needed financial and technical oversight of work by third-party vendors.

Our goals:

1. Develop a process for upgrading a Web site in an efficient, cost-effective and user-friendly way, especially for entities without dedicated staff or Web development support.

2. Apply Web design trends and standards in order to make sites mobile friendly and responsive, and to reflect better and consistent use of colors, media, fonts and branding elements across all School sites.

3. Increase the accuracy and utility of search results on each site, and increase search engine optimization for Duke-related searches.

4. Facilitate a 'river of news' approach to increase the number of news items, blog posts and featured profiles that better reflect the activities and accomplishments of our institution.

Our plan:

1. Create a School of Medicine style guide to refresh design elements and influence brand consistency.

2. Design a comprehensive, best-in-class Web template in the open-source Drupal CMS (using version 7, the current production version), for departments and major units to consolidate their subsidiary units under one site.

3. Allow the template to capitalize on existing University information systems, including Scholars@Duke, the University's recently developed faculty-profile system, and the University's central events calendar, Events@Duke.

4. Apply this new framework to the School of Medicine and the Department of Medicine sites, and simultaneously persuade other departments to follow suit.

Measurements

This is what we accomplished, and how that's resulted in a highly successful project:

1. We selected a vendor, Coalmarch Productions, to design the style guide and then apply the new branding elements and themes in the development of a Drupal 7 template.

2. We completed the style guide, as well as a brand bar for temporary use to give sites a common design element, in July 2014.

3. Under our direction, Coalmarch developed the Drupal template, allowing a department to incorporate its divisions, training programs, faculty labs and profiles, news blogs, research highlights, and calendars. The template integrates Scholars@Duke, Events@Duke, and the Duke Alert system. It allows subunits a fully functional home page within the larger school or department site, with navigation that mimics an independent site.

4. The template is fully compliant with DHTS security requirements and is available for free to all School of Medicine entities. Because the template is free, easy to use, and reduces costs of Web development projects by up to 50%, departments and units have eagerly used the template. No mandate by the School of Medicine has been needed.

5. The Duke Office of Information Technology created a complementary WordPress template for entities that do not need the complex functionality of a full Drupal site. This free template has the same look and feel as the Drupal template, is customizable, and will soon be able to integrate Scholars@Duke faculty profiles.

6. While free, the Drupal template requires back-end development work from a third-party (often external) developer. We developed step-by-step guidelines, sample RFPs, and a list of vetted third-party vendors, and the School of Medicine communications team provides consultation services to all School units.

7. We organized an internal wiki, with a checklist of recommended planning and development steps, and a listing of current and projected Web development projects across the School. The wiki tracks each project and allows colleagues to share best practices.

8. The Department of Medicine launched its new comprehensive site on June 1, 2015. An integrated MedicineNews blog and improved faculty profiles have resulted in increased Web traffic, especially longer on-site times for internal visitors. The Internal Medicine Residency Program reports increased recruitment interest because of the new resident profiles.

9. The School of Medicine launched its new site on June 30, 2015. It provides better navigation to department sites, and incorporates seven previous standalone administrative and programmatic sites, with other administrative offices migrating soon.

10. Nine additional School of Medicine units have launched sites using the template or following the design framework (see Addendum)

11. Nine units are in planning or development stages of using the framework (see Addendum)

Coda:

On October 7, 2015, when Paul Modrich, PhD, professor of biochemistry, was selected to receive the Nobel Prize in Chemistry, the exciting news was quickly reflected on the Biochemistry, School of Medicine, Department of Medicine and other sites.

Addendum

Links:

- Style guide: https://medschool.duke.edu/about-us/news-and-communications/communications-resources/branding-identity/style-guide

- Brand bar: https://medschool.duke.edu/about-us/news-and-communications/web-development/school-medicine-brand-bar

- School of Medicine Web development templates: https://medschool.duke.edu/about-us/news-and-communications/communications-resources/web-development

- Building a Drupal Site: https://medschool.duke.edu/about-us/news-and-communications/web-development/building-drupal-site

- Drupal Web Site Prototype: https://medschool.duke.edu/about-us/news-and-communications/web-development/building-drupal-site/drupal-prototype

- Building a WordPress Site: https://medschool.duke.edu/about-us/news-and-communications/web-development/building-wordpress-site

- Department of Medicine: https://medicine.duke.edu
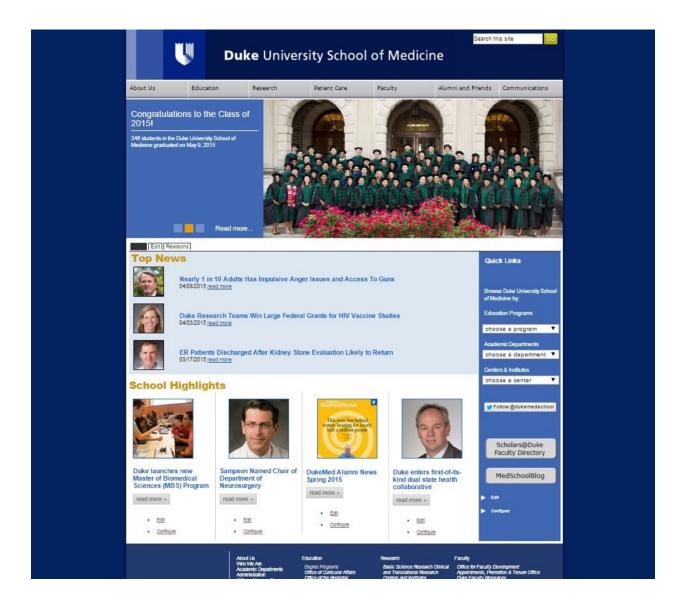
- School of Medicine: http://medschool.duke.edu

Additional School of Medicine units that have launched sites in 2015 using one of the templates or following the design framework:

- Department of Biochemistry, http://www.biochem.duke.edu
- Department of Molecular Genetics & Microbiology, https://mgm.duke.edu/
- Department of Neurobiology, http://www.neuro.duke.edu/
- Department of Ophthalmology, http://dukeeyecenter.duke.edu/
- Department of Orthopaedic Surgery, https://ortho.duke.edu/
- Duke AHEAD, https://dukeahead.duke.edu/
- Duke Center for Autism and Brain Development, http://autismcenter.duke.edu/
- Duke Institutional Review Board, http://irb.duhs.duke.edu/
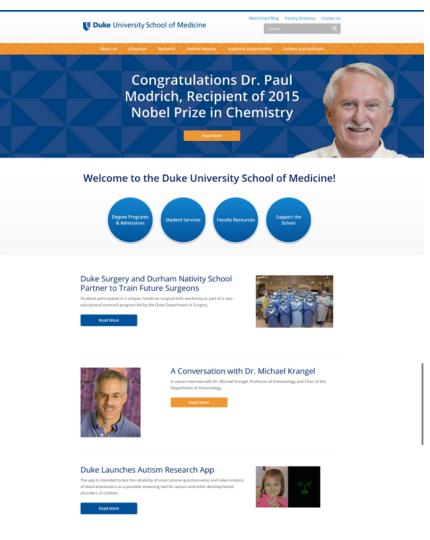- Duke Translational Medical Institute, https://www.dtmi.duke.edu/

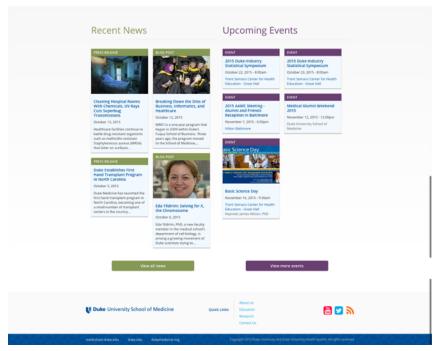**Sites currently in planning or development stages of using the framework:**

- Department of Biostatistics & Bioinformatics
- Department of Dermatology
- Department of Immunology
- Department of Neurology
- Department of Neurosurgery
- Department of Pathology
- Department of Pediatrics
- Department of Surgery
- Center for Applied Genomics and Precision Medicine
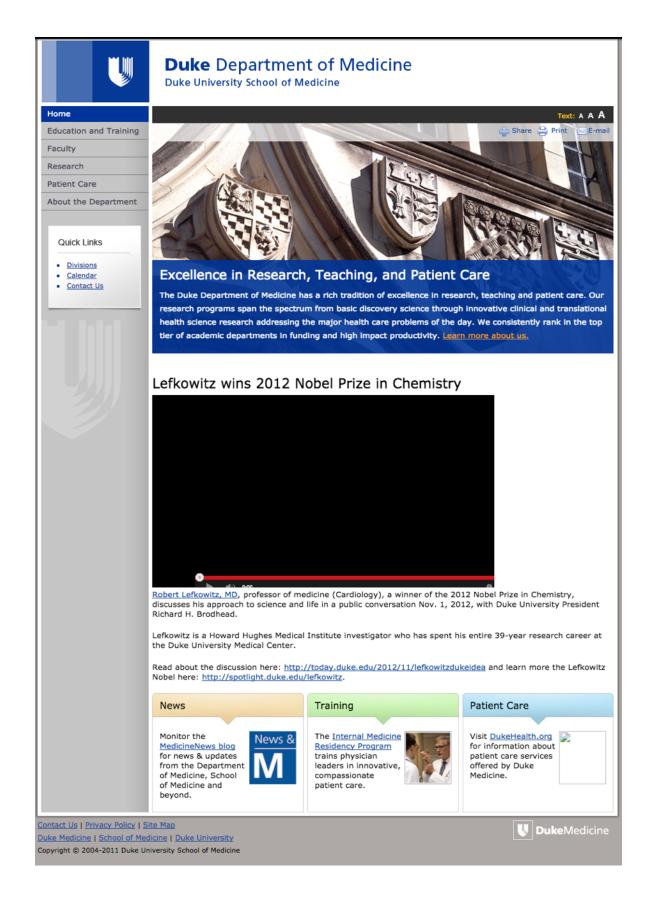
SCHOOL OF MEDICINE (OLD) HOME PAGE, 6/01/2015

SCHOOL OF MEDICINE (NEW) HOME PAGE, 10/15/2015

DEPARTMENT OF MEDICINE (OLD) HOME PAGE, 11/23/2012

DEPARTMENT OF MEDICINE (NEW) HOME PAGE, 10/15/2015