ARCHITECTING A WEBSITE FOR THE COLLEGE OF ENGINEERING

Research & Recommendations

February 2015
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INTRODUCTION

Most websites serve a single purpose. Some sell products or services. Others deliver news or connect people. Higher education websites do all of these things—and more—simultaneously. They are responsible for selling experiences, programs and opportunities; keeping multiple audiences updated on a variety of news, announcements and research; and making connections between a network of students, faculty, staff, alumni and partners. And that’s just the start of a rabbit trail of offshoots, one-offs and hidden, fringe elements.

The goal of this project was to understand and assess the goals and needs of the College as a whole, and make recommendations that meet the demands of each department, center, institute, administrative unit and audience. The college has recently rededicated its efforts to telling its stories, but has lacked the vehicle to do so. The recommendations and information architecture outlined in this report were carefully constructed based on the direct input of the College of Engineering faculty, staff, students and stakeholders.

Thank you for the opportunity to contribute to this project. We are excited about the opportunities a new web presence will present for the College of Engineering.

RESEARCH

Great design starts with comprehensive research. We conducted primary and secondary research to identify trends, pain points and opportunities, all of which informed our recommendations for this project. The College wants to move on the website project quickly, and we worked with the communications team to put together a research plan appropriate for the short time frame. Each research activity was undertaken with different ends in mind.

WEBSITE TRENDS IN HIGHER EDUCATION

At one point during our phase of work, Dean Elbashai said the project in its totality would be a success if peers in engineering looked at the website with jealousy. Working with an interaction designer, we analyzed the creative work and information architecture of both the best colleges in engineering and other institutes doing interesting things online. We expanded the scope of effort to all of higher education to open our eyes to new possibilities.

Websites in higher education are often sore spots. Even small, private colleges are amorphous, transient communities filled with politics and conflicting viewpoints. The bigger the school, the bigger the challenge in presenting a coherent vision online. But among the best websites we encountered, definite trends emerged.
Content is organized by audience, not type.

Information is arranged less by what it is and more by the users who find it valuable. This allows visitors to identify which content is relevant to them before they even click. Setting aside highly motivated users like job seekers or potential undergraduates, website visitors have short attention spans. Seminal research conducted by Microsoft in 2011 and recounted by Jakob Nielsen found that exit time of most web pages follows a negative aging curve. Users have been trained to believe that most pages are pointless, so they drop at extremely high rates for the first 10- and 20-second intervals. Once presented with something relevant, however, they often stay for quite a while. This is what makes explicitly calling a user by “name” such a popular technique.

Organizing content makes tailoring it to high-value audiences easier, but also means that content must be organized differently. Just because two articles are both considered “news” doesn’t mean the same people want to read them. One might be better suited for industry and another for prospective students. Understanding what content is relevant to each audience is the first step to creating a successful information architecture, and many colleges and universities are taking the uncertainty out of the first click by explicitly pointing users in the right direction. The only potential drawback to this construct is that it can be difficult to place content relevant to a broad range of constituencies.

Static paragraphs of copy are being replaced by visual, dynamic content.

Web marketers like to speak of the path to behavior conversion as “the funnel.” At the top of the funnel, there is an input group. That input is winnowed away to the number that eventually convert over the course of time. College and even department websites exist at the top of the funnel. They serve to catch the eye and start users on the path to conversion. At the top of the funnel, users are looking for content that is bite-sized and can be consumed quickly and easily. They haven’t committed enough time or energy to read large blocks of text. Communicating through testimonials, images with captions, or spotlights featuring quotes or statistics provide compelling alternatives—they give context and are far more likely to grab attention.
Feeds are utilized to display large volumes of content. In the past, most web content was stored at the page level in HTML code. Changes in architecture have made it simpler and preferable to supply content streams to pages directly from a database. This makes content modular, reusable and flexible. Many institutions in higher education are using feeds of news, events, announcements, etc. as foundational page elements. This technique makes it easy to display different content in multiple places at the same time and allows visitors to quickly browse, sort and search through content that is relevant to them. It’s also an easy way keep pages fresh without extensive design and development.

There are fewer pages and longer scrolls. The way users interact with websites has changed a lot since the early days of the Internet. Content no longer needs to be crammed above the fold to get noticed. A recent study found more than three-fourths of pages with a scroll bar were scrolled to some extent. This means websites can showcase more content using fewer pages, creating a simpler user experience. We believe this pattern will continue to grow. The rise of tablets and mobile devices has helped acclimate users to longer pages. When using an iPad, scrolling is simple and tactile. Though this does not necessarily map to a desktop, the expectation of viable content being further down page has been planted in the minds of users.

Menus are used as important wayfinding tools.

Menus are more than an index of pages. They function as a roadmap through an organization’s website. Many colleges and universities deploy mega menus that can accommodate iconography and photography, callouts and submenus. These curated menus use design elements (typography, color, etc.) to present multiple navigation levels to a user at the same time. Mega menus actually have their roots in product GUIs. Older versions of Microsoft Word, most notably Word 97, started using large dropdowns for templating and formatting. These menus have become commonly accepted interface elements that are navigable for even relative web novices. They are particularly useful in higher education because they remove the “empty lander” pages that serve no purpose other than to direct users one level deeper.

STAKEHOLDER WORKSHOP

The stakeholder workshop outlined the high-level direction for this project. Our main goal was to understand the College of Engineering’s goals and audiences, and pinpoint the key messages that should be delivered to those audiences.

The primary goals of the website are to:

- Recruit top, diverse graduate students and faculty.
- Attract potential partners.
- Showcase what distinguishes the College.

The primary audiences of the website include:

- Prospective Graduate Students
- Prospective Faculty
- Diverse Communities
- Industries & Funders
- Other Institutions & Partners
- Alumni & Friends
- Existing Staff & Faculty
INTERVIEWS

We conducted more than 25 on-site interviews over the course of two weeks. We met with assistant deans, department heads, faculty and staff, undergraduate and graduate students, technology and communication team members, industry partners and alumni. The interviews were held all throughout the College’s facilities, giving us a firsthand look at how these people operate in their own environments.

Though there were common threads of consensus that tied together the two weeks’ worth of conversations, something new came out of nearly every interview. There was a general feeling that the College and all of its departments should hold themselves to a higher standard of communication and do more to show what an exciting place the Penn State College of Engineering really is.

Departments & Programs:
- Acoustics
- Aerospace
- Architectural
- Biomedical
- Chemical
- Civil and Environmental
- Computer Science and Engineering
- Electrical
- Engineering Science and Mechanics
- Industrial and Manufacturing
- Mechanical and Nuclear
- SEDTAPP

Centers, Institutes & Administrative Units:
- Advancement/Development
- Alumni Relations
- College Networking Team
- Engineering Academic Advising
- Career Resources & Employer Relations
- Engineering Diversity
- Institute for Natural Gas Research
- Larson Transportation Institute
- Learning Factory
- Leonard Center
- Facilities Engineering Institute

Assistant Deans:
- Research and Innovation
- Graduate and Undergraduate Development
TAKEAWAYS & RECOMMENDATIONS

The balance of content on www.engr.psu.edu does not match the strategic goals of the College.

The current College website is almost completely utilitarian; there is little real estate or functionality dedicated to marketing. Dean Elnashai told us he was tired of hearing about MIT: "Why are we always hearing about MIT? Why not Penn State?" he asked. It's a worthy goal, and it gave rise to a joke we often used to illustrate what we were trying to accomplish when beginning interviews: Go to MIT Engineering's website and click "Initiatives." In large type, you'll see links for "Environment, Energy, & Cancer." Go to Penn State Engineering's website and click "Research." You'll find an office address in Hammond Building for the Office of Engineering Research Administration. We point this out not to kick a dead horse, but because it's not simply about a nicer website. It's about an entirely different mindset that needs to be adopted in every office and conference room in every department.

A lot of the content on the current website feels like it was put there because it "had to be there," and there's far more content for undergraduate students than there is for graduate students. This is a trend in higher education websites and, in this case, a paradox. It does not align with the goals established by key stakeholders during the workshop: to recruit top students and faculty, attract partners, and showcase what sets the College apart. During our interviews, we asked faculty, staff and students to prioritize marketing and utility. Unsurprisingly, we were met with mixed responses. We helped people understand that while all of the information needed to please every audience could be stuffed in the site somewhere, priority would need to be changed and enforced.

It became apparent quickly that different audiences rely on different College-related websites to find information. Prospective undergraduates want information about the College, but likely more information about the University. They are likely to start at www.psu.edu. Undergraduate students are likely to use the College website as first- or second-year students because it's where their academic advising information lives. Graduate students rarely access www.engr.psu.edu. They go directly to a department—the same with potential faculty or department heads from other universities who may be considering where to place Penn State in their rankings. The existing College and department websites create a broken experience that compete for content rather than distribute it based on where audiences go to find it.

A Recommendation

Focus the content of www.engr.psu.edu on marketing.

The new College website can meet both marketing and utility needs, but there should be a clear hierarchy of goals. In a nutshell, the College website should be the primary vehicle for marketing. It should do all it can to present the College ecosystem as an exciting place where great things are happening. The department websites should be more focused on utility. Audiences likely to come to the College website are looking for more general information. At the department level, utility becomes marketing.

Tactically, any information that can be applied to the College as a whole (e.g., undergraduate advising, development, etc.) should live on www.engr.psu.edu. Content that is specific to a given department should live on that specific website as much as possible.

"I think the website’s goal is to be a picture to the outside." Electrical Engineering
There is a lack of visibility into everything happening within the College.

During our interviews, we heard from several people that there is little insight into what happens on a regular basis within each department, center, institute and unit. Nearly every group felt ignored. There are two reasons this happens: the information each department creates exists in a vacuum or it simply doesn’t exist. Every entity within the College of Engineering is doing incredible work, but it isn’t always highlighted—externally or internally. They want their services, projects and research to be seen and heard, but there isn’t an infrastructure in place to help foster that communication. We heard from some that the College doesn’t even necessarily know where the truly great stuff is happening. This is a problem.

“Recommendation

The College of Engineering website should function as an umbrella.

The College needs to communicate from the top-down and the bottom-up. As a medium for utility, the website should provide clear, direct paths to department, center, institute and unit websites. As a marketing tool, it should promote select news, events and research from each of these groups. Above all, www.engr.psu.edu needs to unify all of the individual entities that make up the College and provide visibility into all of the things—people, work and accomplishments—that make it excellent. The College is a learning community where exciting things are happening. It should not look like a collection of loosely affiliated individual units.

Different academic departments have fundamentally different content needs.

Each engineering department serves the same purpose, but not all of them promote the same information. For example, the Acoustics program website doesn’t include content for undergraduate students, and SEDTAPP’s offers information about associate degrees. There is a strong streak of individuality that runs through most departments, and they are right in feeling that each has slightly different needs that should be reflected online.

“Recommendation

Create a consistent information architecture for departments, but allow for customization.

The content created at the department level—impact stories, spotlights, etc.—is what will give each department a sense of ownership and personality, and will ultimately make the new College website shine. The information architecture for each department website should be the same at the highest level, but interior pages will likely differ from department to department based on what content they want to include. The content audits conducted by the communication strategists will help further identify what content is unique and what can be applied to all departments.

“The College’s website should be a gateway. When you go through that lobby—if you go to the lobby, you need to be able to find where you need to go.”

Biomedical Engineering

“We are always talking up what we do within the College. Yet, every month I meet people that say ‘I never knew about that activity’ and we’ve been around for so long.”

Facilities Engineering Institute

“We have multiple institutes and multiple centers. People don’t know what other people are doing. There’s not a lot of connection and discussion going on.”

Institute for Natural Gas Research

“Different academic departments have fundamentally different content needs.”

Facilities Engineering Institute
News stories aren’t currently resonating

The stories that should be highlighting the impressive people, research and accolades within the College are falling flat. This has nothing to do with a lack of interesting news, but rather how it’s delivered—it’s not written in a compelling way. Dana has built up a team of strategists capable of telling stories, but they are not a panacea. We heard from a handful of faculty and staff that they don’t feel the right stories get the right amount of attention; they don’t make their way through the chain of command. One institute shared that one of its initiatives was used as campaign material at the university-level, but was never even mentioned on the College of Engineering website. There is no volume to the news that comes out of the College right now. Whether a grad student wins a small contest or a department makes a major landscape-altering breakthrough, it all goes to the same place and is presented the same way.

“When we try to make news, we come up with a very boring sentence. I think what is missing right now is how the people are going to digest this information. The impact.”
— Chemical Engineering

“Highlighting that some grad student received an award isn't as interesting to me.”
— Electrical Engineering

“Alumni aren't going to give you a penny if they don't feel like there is a result. They love to contribute, but they want to see how their contribution makes some kind of impact.”
— Biomedical Engineering

Recommendations

Create a taxonomy of messaging that gives news stories and updates the appropriate amount of attention.

Identifying a hierarchy of content types is the first step to creating a successful content strategy. A content taxonomy aligns expectations and ensures the most important information—content that reflects the goals of the College—is front and center. We started this process by challenging both the College and each of its departments to come up with impact-level stories. The most important of the news items that remain can make their way onto www.engr.psu.edu, while those of lesser significance should be on the appropriate department website only. Though egos may be bruised in making these decisions, they are necessary to communicate news at the appropriate volume and to adhere to the strategic priorities of the College.

Use images and videos to add visual interest and help tell the College’s stories.

Images and videos are a great way to grab attention and tell a story. They don’t just tell audiences about all the interesting things going on at the College of Engineering—they show it. Images and videos can also be switched out on a regular basis to create a fresh look and feel with minimal design and development effort. There are any number of interesting and offbeat ways that this type of content can be created. Some of the communications strategists may have the skills needed, and others should start the process of learning how to become better photographers, videographers or editors. Additionally, we found that the College has small video booths set up in a number of buildings to allow taping of lectures. These facilities could easily be used to shoot short videos by faculty or students. Finally, the College trumpets the educational ecosystem that comes with an institution the size of Penn State, but doesn’t necessarily take full advantage itself. There are several students at Penn State who would love the opportunity to shoot photos or video for use in their portfolio—put together a program and take advantage of a cheap, close resource.

Write content in a way that shows real-world impact.

Internal audiences may understand that receiving grant “x” is significant, but that doesn’t mean the wider public does. Potential partners, students and alumni want to see how grants or awards are used—the real-world impact—not what they’re called or who received them. The purpose of every story about research, people, accomplishments, etc. should be to show how the College of Engineering is making a difference.
Information that should be related is currently siloed and not searchable.

There was at least one person in almost every interview who expressed how difficult it is to search for content on College-related websites. For faculty and staff, the frustration usually stems from not being able to find documents or resources. For graduate students and businesses, it stems from not being able to draw connections between what research is taking place and who is involved. A lot of this comes down to content being locked in HTML pages.

“Here’s an example of the failure of the College website (thinking about me as a prospective student): I click on ‘future students.’ I click on ‘grad students.’ It then lists the different areas with no links anywhere. I now have to go backwards to find the department site. It’s full of these pages that have lots of work, but they are dead ends.”

Electrical Engineering

“Most of the people we are trying to attract are engineers. If they can’t find information, they get frustrated.”

SEDTAPP

Recommendations

Make all content searchable from any College-related website.

Users should be able to search any term from any website within the College of Engineering umbrella. Search results should pull all related content types (e.g., text, documents, directory, etc.) from one centralized database so users are presented with the same information regardless which website they’re on. The search should be smarter and offer predictive capability to guide users.

Show connections between research, researchers and facilities.

Research-related content is fragmented. Research initiatives, the faculty and students participating, the sponsors involved and the facilities in which it takes place each live in different sections of the website. The new website should tie these three components together in the same place. This, again, is content that should be in a relational database. During our research, we actually came across a prototype of a system that queried all this information and tied it together with meaningful connections. Creating a public-facing version of such a system would be a boon for users in multiple high-value audiences.
Recommendations

Put as much content into a database as possible.

Content used in multiple places—directories, news, events, research stories, images, etc.—should be added to a centralized database and pulled onto appropriate pages as needed. This way, the same content only needs to be updated once and is consistent from website to website.

Do not repeat the same content in multiple places.

The College website should promote general, high-level information related to the College as a whole. Academic-related content should be distributed between the College and department websites depending on the audience. The College website should house general and entrance-to-major academic information for first- and second-year students; major-specific information should live on the department websites. In our experience with enterprise-level web properties, we have never seen a process by which the same content is managed on multiple pages work well.

Complete a content audit for every website.

Building a better experience sometimes means blowing up what exists. The new website should not be designed to accommodate the content that already sits at the department level. This is a tendency that derails even the best-intentioned web projects. We’ve created a consistent framework that will accommodate fundamental pieces of content. As part of the phased rollout, each department should work with its communication strategist to decide what needs to be on the website—from scratch.

There is a significant amount of redundant and outdated content.

Website content is not clearly organized. The same information is often nested under multiple sections of the same website or cross-linked to or from other web pages or websites. There is no clear path for users to take to find the information they need. This also makes content management and quality control frustrating to handle. Additionally, content is not always updated. Even if it’s updated on one page, it might not be updated on another.

“I think we also have to be careful with cross references. I think most people are really going to start by Googling. If we come into too many different layers, they get lost as to the direction they want to do.”

Architectural Engineering

“The College maintains course plans for the whole four years. They have a plan. We have a plan. We may update it before they do.”

Chemical Engineering
Keeping content fresh is a major concern. Promoting timely and relevant news and research stories is a priority for everyone within the College, but it’s not being done effectively. There’s a general feeling among faculty and staff that it takes too much time to identify new content, track down all the necessary details and information, write it and post it. By the time content is created, it’s already old news. When content gets posted, it tends to stay there. Even an evergreen gets brown if it’s still in the living room in March, and no content lives forever.

Even though communication strategists will handle much of the web content moving forward, many faculty and staff want to maintain control of their website. There’s a general feeling that if people don’t have a sense of ownership, there will be even less effort made to keep information up-to-date. When juggling a busy schedule, website maintenance often is the first thing to go.

“The way information is being collected—it’s a group of people that are very busy. It’s people who have absolutely zero time to update the website.”
Electrical Engineering

“The age-old problem is keeping things up-to-date.”
Mechanical and Nuclear Engineering

Recommendations

Create an editorial calendar.
An editorial calendar will help communication strategists and department contributors identify when and what type of content should be posted. This should be a joint effort between the strategist and department, though the calendar should be the responsibility of the strategist. Often, content needs are predictable and cyclical. Writing it down ensures these needs are met in a timely fashion. The calendar will help keep posts fresh and consistent; balance and prioritize the different types of content (e.g., news, alumni highlights, etc.); and give strategists an opportunity to see trends and themes across departments and collaborate.

Build an alert system that allows content editors to set reminders to check and manage specific pieces of content.
One of the major pain points for the College and departments is that content is often out-of-date. There are a handful of factors that play into this, all of which are easily solvable. A CMS alert system that triggers an email or notification when content is about to expire is one way to address this problem. It would help website editors track and change content as needed. Simply giving users the option to set an archive date for news stories and pulling down events with dates in the past is a great start.
Faculty profiles are both vitally important and infrequently updated. These are important gateways to the College of Engineering for many visitors (especially graduate students), but faculty don’t have time or inclination to keep them updated. This is not a knock on the faculty—they are overloaded—but it is a concern that should be addressed. Keeping the content of these pages fresh should be a high priority.

“I would say my biggest criticism with the Penn State system—it was hard to figure out what everyone was doing. You have a department that has a mandatory profile. You kind of get a sense for what is going on there, but it’s not up-to-date.”
Graduate student, Mechanical and Nuclear Engineering

“We know that is seems the most hits are from potential graduate students. They are looking for what is going on here and who they might be working with.”
Civil and Environmental Engineering

“It has to be what [faculty] are actively doing, not just a list of credentials. I think that’s probably secondary.”
Civil and Environmental Engineering

Recommendations

Incentivize faculty to keep profiles regularly updated.
Getting faculty members to update their profile pages has been a difficult task. Offering incentives is one way to encourage faculty to keep these pages fresh. For example, profiles that are updated the most will be featured on the College of Engineering homepage as faculty spotlights.

Published papers should be automatically pulled to faculty profile pages from the self-reporting system.
When published papers are added to the new self-reporting system, they should be automatically posted to the related faculty profile page. This will keep some content up-to-date with minimal effort.

Use faculty profiles as vessels for marketing.
Faculty profiles need to be treated as marketing pages, not resumes. A list of credentials is important, but so is showing real-world impact. In many ways, faculty are the faces of the research happening within each department. Their profiles need to showcase who they are and what they do in a compelling way. These pages are just as much of a priority as the homepage of the College website. There needs to be a push/pull system in place to keep profiles up-to-date. The communication strategists should approach faculty on a regular basis to collect information, but faculty also need to become an active part of the process.
Independent faculty and lab websites are important communication tools and recruitment vehicles for key audiences.

When choosing a school, many of the graduate students we interviewed bypassed the College and department websites altogether and went directly to independently-managed faculty and lab websites. Graduate students are interested in what research is being done and who is doing it, and these websites provide that information in detail. Sometimes these websites are constantly updated and contain the latest information—often they do not. The faculty who had the most success with this type of website often tabbed graduate students to help with upkeep and content maintenance. These sites are totally unaccounted for and are wildly inconsistent, but research suggests they play an important part in building the case for Penn State to potential graduate students.

“I was pretty interested in what the professors were doing [when choosing a school]—what kind of research they were doing, what their interests were.”

Graduate student, Mechanical and Nuclear Engineering

“Good websites for all the labs would be nice.”

Graduate student, Mechanical and Nuclear Engineering

Recommendation
Keep independent sites out of the new content management system, but provide a common platform as an alternative.

Each of these websites look and feel different. They don’t need to sit under the www.engr.psu.edu umbrella to be effective, but they would benefit by having some semblance of consistency in terms of structure and design. The sheer volume of websites and the need for constant content updates makes rolling them into the purview of communications impossible.

The College could partner with an all-in-one website builder and content management system like Squarespace to provide a platform where faculty can easily design a website and manage content. These solutions allow users to create beautifully designed websites with minimal effort while still allowing for customization. Penn State has partnered with WordPress on the sites.psu.edu initiative, but building websites in WordPress still requires technical know-how.

There is too much content for non-public audiences in public areas.

Each department relies on different applications and systems to manage and share internal content (e.g., SharePoint, Drupal, DotNetNuke, custom builds), but individual public-facing websites remain the primary mode for managing and distributing information to internal and external audiences. As a result, content that is seemingly unrelated is collected in the same place.

We covered the difference between marketing and utility, but there is also a difference between public utility and private utility. The website is currently used as a patch to cover gaps in communication with students, faculty and staff. Some departments have their own intranets, but they only closed a picture that includes ANGEL, the soon-to-be-defunct eLion and a litany of web properties.

Recommendation
Build an intranet and/or student portal.

Intranets didn’t solve technology problems—they solve communication problems. A College-wide intranet would provide a one-stop-shop for any content that needs to be accessed by students, faculty and staff rather than keeping it on multiple websites. Having both a public-facing website and intranet creates a clear distinction and allows the College website to unabashedly support marketing goals.

We know vital information about students that could help tailor a better experience. We know their major, their number of completed credits, what courses they have taken, etc. We also know similar information about faculty and staff. This presents an opportunity to create a better communication experience.

Whether this is one property or two, we strongly believe a student portal should be a priority. Such a portal would be a tremendous tool for the advising center, and would open myriad possibilities for extensions like native application development.
Academic advisors are stretched too thin, and students have a hard time finding the correct academic information online.

Undergraduate academic advisors are maxed out—there are too many students, too much information and too little time to manage it all. They get bogged down with an unnecessary amount of inquiries because students don’t take the time to find, or can’t find, the information they need on the website. There’s a lack of searchable information on the College website and a bounty of students who need to access it.

Recommendation

Migrate academic advising information to a knowledge base.

Adding academic advising information to a third-party knowledge base system like Zendesk or Freshdesk would allow students to easily search for specific content, live chat with administrative staff or advisors, and submit tickets for questions and support instead of filling up email inboxes. This would help the academic advisors serve more students by automating as much communication as possible.

These pre-built tools can be completely skinned and reconfigured to create a custom experience that works for the College. This knowledge base could be the gateway to scheduling an appointment through the system that was custom-built in-house. This system should be updated to be more responsive in real time, as well. Students should be able to see open slots on a calendar and schedule an appointment rather than selecting multiple options that trigger a manual experience on the side of the advising staff. This system should include appointment reminders to make sure that the slots that are available are used efficiently. Ideally, this system would be built into the student portal previously discussed.

Development and alumni relation efforts are extremely underrepresented within some departments.

Efforts to establish relationships with alumni and businesses often fall on faculty or staff members whose plates are already full. Many department websites have a section dedicated to business, industry and/or alumni, but content is not always updated or written in a way that makes an impact. As a result, alumni and development efforts are inconsistent from department to department, and are often not given the attention they deserve.

“I would like to see [each department] have their own consistent web presence.”

Alumni Relations

Recommendation

Include clear calls to actions to give and connect.

Departments should let their websites do some of the heavy lifting for them. Persistent calls to action that encourage alumni or industries to make a donation or get involved won’t nurture personal relationships, but they do make it easy for these audiences to take action without jumping through hoops.
There is a lot of content that is unaccounted for.

Throughout the research process, we discovered several websites and web pages that are related to engineering, but do not fall under the College of Engineering umbrella. A lot of this information might not be "owned" by the College (e.g., independent lab and research websites), but it does raise questions about how these web presences should be integrated into the College of Engineering ecosystem, if at all.

Recommendation

Take inventory of all one-off websites related to the College.

The College of Engineering is a massive ecosystem—one that is nearly impossible to understand without complete visibility into the internal and external factors that keep it moving. A complete inventory of all online websites generated by engineering students, faculty and staff would give a 360-degree view of everything that is related to the College and uncover opportunities areas for content consolidation and design.
How to approach these maps:

Included in this section are sitemaps for the College, departments, and each individual center, institute and administrative unit. We’ve also included content hierarchy maps for the College and department websites. As you read through each of these maps, keep the following things in mind:

1. Sitemaps outline the primary, secondary and global levels of navigation for the new websites. It’s likely these navigations will get deeper as content is created down the road, but our goal was to establish the persistent high-level structure under which any content can be placed. Careful thought and consideration was given to the name of each primary navigation section for this exact purpose.

2. Hierarchy maps identify the priority of content types, not specific pages. More significant content may require individual pages while lesser priority content could exist as small callouts or sections on an existing page. This is a design challenge that will need to be addressed as the websites move into the next phase. We did not include hierarchy maps for the centers, institutes and administrative units because there was far less content to accommodate in the sitemaps.

3. As mentioned earlier in this report, each department has very different needs. While the hierarchy maps account for common content, departments should not feel restricted by our recommendations. These are simply informed guidelines based on our research.

4. A searchable directory is accessible from the top of every page on the website. This directory will search people, departments, offices, etc.

5. Not every page URL lives within the navigation. For example, there is real estate dedicated to development/advancement on the homepage and under “The College,” but the actual page does not live in the menu. Our reason for doing this is to make content as contextual as possible. Putting development/advancement information next to a personal message from the Dean and impressive statistics is much more compelling than isolating it in its own section of the website. Like every piece of content on the website, it will also be searchable.
## ACADEMIC DEPARTMENTS: ACADEMICS

### UNDERGRADUATE
- Academic schedule
- Upcoming relevant seminars
- Student & faculty spotlights
- Student services & programs
- Student handbook(s)
- Contact information

### GRADUATE
- Advising: curriculum & requirements
- Majors, minors & certificates offered
- Career & internship resources
- Ext. opportunities
- Support & resources
- Student directory

## ACADEMIC DEPARTMENTS: INDUSTRY

### INDUSTRY
- Department research & real-world impact stories

### GET INVOLVED
- Giving opportunities
- Upcoming relevant events
- Overview
- Facts & figures

### PARTNERSHIPS
- Corporate partners
- Sponsorships & projects
- IPAC
- Contact information