A Fresh Look at a University Website:

Redesigning the Graphic Communication Website

Kristy Leung & Samantha Kim

Graphic Communication Department

California Polytechnic State University, San Luis Obispo

Fall 2022
Abstract

Designed over ten years ago, the landing page of the Graphic Communication website does not reflect the artistic talents of the department and exhibits poor navigation and usability. Colleen Twomey, the department chair, has expressed that prospective students, transfers, guardians, and other visitors have trouble finding relevant information on the website. As a university-affiliated site, the landing page should guide both new and returning visitors to their destination in a quick and intuitive manner. The primary goal of this project is to effectively educate new visitors who are interested in the Graphic Communication program but have minimal knowledge of what the program is. By combining hierarchy with visual aesthetics, the redesigned landing page will allow users to clearly and smoothly navigate the website based on their selected audience segment.
A Fresh Look at a University Website: Redesigning the Graphic Communication Website

For this senior project, the designers seek to conduct intensive user research and synthesize their findings to design a cohesive desktop prototype for the Graphic Communication website, which will later be implemented on a web content management system.

Studies have shown that university websites tend to be boring, bland, and frustrating to many of its visitors, especially because branding limitations require all pages to be consistent with one another. The senior project’s purpose is to improve user experience by helping users navigate to their destination quicker, while remaining within Cal Poly guidelines.

Literature

Research has proven that usability, one of the various key graphic communication theories, is greatly influenced by design that is user-centered rather than internally focused. Limitations, current trends, and varying factors are three critical elements that inform the usability of a site. It is important for a website to provide effective usability because if a website is difficult to use or fails to clearly state what an organization offers, the user will leave (Nielsen, 2012). With regard to limitations, content strategist and UX writer Bailey Lewis’s analysis of university websites reveals that many sites suffer from cognitive limitations due to profuse jargon and an inappropriate focus on the university’s goals, rather than the user’s goals (Lewis, 2021). Additionally, Nielsen Norman Group (NN Group) reveals that several university websites, in an attempt to follow the branding limitations of their universities, tend to communicate with insider terms and concepts that confuse new visitors who are unfamiliar with higher education (Sherwin, 2016). In other words, when a site fails to adhere to their organization’s limitations and guidelines in a usable manner, the site tends to deter its users.
Effective usability is essential to any high traffic site as there are new and returning users browsing the web pages at any moment. Web designers struggle with creating good usability since they need to satisfy their client as well as the future users who will be using the site. There are two limitations that designers need to overcome: client-oriented constraints and user-oriented constraints. Following branding guidelines, including necessary content, and ensuring site originality are the requirements of the client while aesthetics and attractive content are needed to draw users’ attention (Chevalier & Bonnardel, 2007). After all these conditions are fulfilled, the designer is able to fully focus on the usability aspect. There is so much information that needs to be on university sites, further hindering the designer from improving the user experience as it can be overwhelming and difficult to handle:

A university website communicates information regarding their academic programs, teaching facilities, student affairs, research opportunities, campus facilities etc. to its various kinds of users such as current and prospective students, faculty, staff, alumni, parents, researchers, etc. Each of these user groups has their own requirements and expectations from the website but they all want to access the accurate information they require easily in a short time. (Yerlikaya & Durdu, 2017)

Higher education websites in particular have a substantial amount of limitations due to the many audience segments it withholds. There is barely any overlap between the expectations of each user group. So, appropriately deciding which pages are targeted to which audience segment is crucial. If done wrong, there can be an excessive amount of web pages with confusing navigation menus, however, if done correctly, the website will provide an amazing user experience with smooth usability.
When comparing one organization’s website to another organization’s, the first impression users experience is highly impacted by the visual appearance of the web design. A study found that users will consistently judge the attractiveness of a website even if only exposed to it for a brief amount of time (Tractinsky et al., 2006). This immediate aesthetic perception is a natural and common approach of new visitors. They will already have a strong opinion of a website after their initial encounter, especially if the site does not look professional or aesthetically pleasing. The web design should also reflect the organization or topic aptly so that the user knows the website’s purpose from the start. It is important to keep each web page consistent because it is impossible to know which page users first look at within a whole website. Anton Axelsson (2012), a Malmo University researcher, stated, “To achieve procedurally consistent web design, developers must analyze the procedures from the user’s perspective,” which will also ensure better usability. Axelsson also explains how inconsistency in visual appearance prolong users from reaching their destination, more user errors, and increases the number of clicks. With regard to university websites, a trend that has been proven by Researcher Layla Hasan (2013) is that higher ranked universities have better overall usability of their sites. Usability of educational sites not only creates a better user experience, but it can also improve the ranking of the university. Lencastre & Chaves (2008) has further addressed the usability of educational websites by discussing the other advantages like helping students enjoy the learning experience, increasing students’ confidence, and encouraging students to use the website.

There are many factors that are evaluated when testing usability in web design. University websites mainly share academic information while also promoting events and sharing updates. For that to be done successfully, Sukmasetya (2020) says “it needs an attractive display so that people are interested in using it.” and explains how usability evaluation methods can
solve that by calculating the “learnability, memorability, efficiency, errors, and satisfactions” of the user. If these conditions are met, the usability of the website will improve immensely, making it easier for users to browse the site and also fulfilling the universities’ requirements. In terms of goals, university websites should be able to satisfy students’ needs by allowing them to achieve their desired task in the fastest possible time (Manzoor et al., 2019). Throughout this process, universities need to increase the chance of prospective students applying for the school, meaning that the visibility and accessibility of all relevant information on the website is essential. Mirfa Manzoor (2019), along with other researchers, explored a way of measuring the usability attributes that can ensure that success. They evaluated 300 students on qualitative and quantitative approaches based on navigation, organization, ease of use, design, communication, and content. The results showed that almost 90% of students agree with the proposed usability attributes, but found that universities fail to meet those basic standards of usability. Each attribute is equally as important to the next, further indicating that there are many varying factors that develop a website’s usability.

**Synthesis**

Examining the usability of websites is relevant to their senior project because it is adjacent to their goal: to facilitate a user experience for students, guardians, faculty, and industry experts who navigate the Cal Poly Graphic Communication site for information. During their user research and usability testing phases, the designers applied usability evaluation methods to measure learnability, memorability, efficiency, errors, and satisfactions across their high fidelity prototype so that the designers might present their insights to the department chair and gain approval for migration to a more intuitive web content management system like Wordpress. With these methods in mind, their project also takes into account the various limitations, trends, and
factors that influence the user experience of a website, specifically working within branding and web constraints and taking into account the activity trends of their audience segments to create a site redesign that meets the user’s goals. In this way, the designers effectively analyze each user’s perspective to ensure the structure of the site is problem-centered rather than internally focused, as university sites historically have been.

**Figure 1**

Current Graphic Communication Website - [http://www.grc.calpoly.edu](http://www.grc.calpoly.edu)
Method

A/B Testing

First, the designers conducted A/B testing with their key stakeholder, Graphic Communication Department Chair Colleen Twomey, who gave them key insights on the design needs of the Graphic Communication department. In particular, Twomey expressed a need for users to identify themselves based on demographic, such as prospective student, transfer student, or current student, so that the website can appropriately segment information based on its various audiences. For this reason, the designers represented two versions of the initial landing page, testing the usability of both heroes and gathering insights in a user interview in order to evaluate which hero was more effective. The result, shown in Figure 2, was a hero with three call-to-action buttons based on audience segment right upon landing on the webpage, which Twomey expressed was more straightforward and would meet the user’s needs immediately without need for scroll.
A Fresh Look at a University Website

**Figure 2**

Version A in A/B Testing

![Version A in A/B Testing](image)

**What is Graphic Communication?**

Founded in 1945, Cal Poly's Graphic Communication Department represents one of the best-known programs of its kind in the nation. The discipline includes media and mass communication involving the creation, production, management and distribution of advertising, marketing, web sites, books, magazines, newspapers, catalogs, packages and other media in printed and digital form.

**Figure 3**

Version B in A/B Testing

![Version B in A/B Testing](image)

**What is Graphic Communication?**

Anything from the creation, production, management and distribution of advertising, marketing, web sites, books, magazines, newspapers, catalogs, packages and other media in printed and digital form.

**Welcome to the GrC Pod!**

PROSPECTIVE

STUDENT

TRANSFER
Prototyping

After conducting A/B testing, the designers further gathered user research insights among their classmates by doing usability tests of the current Graphic Communication website. Among questions asked, the designers questioned students for their primary goals when visiting university websites and found that most current and prospective students go to the website to find relevant information on coursework, such as catalogs, concentrations, and student portfolios. The designers prioritized academic needs in mind as the designers organized content hierarchy, and approached iterative prototyping with these priorities. After gathering more insight from professors and students, the result is a fully functional high-fidelity prototype that makes academic information easily navigable, while taking audience segments into account. See below for images and links of both low and high fidelity prototypes.

Figure 4

Wireframes of the Low Fidelity Prototype
Figure 5

Snapshots of the Low Fidelity Prototype

WHAT IS GRAPHIC COMMUNICATION?

Founded in 1946, Cal Poly's Graphic Communication Department represents one of the best-known programs of its kind in the nation. The discipline includes media and mass communication involving the

PROSPECTIVE STUDENTS

A PEEK INTO GRAPHIC COMMUNICATION

What is Graphic Communication?

Cal Poly's Graphic Communication Department represents one of the best-known programs of its kind in the nation. The discipline includes media and mass communication involving the creation, production, management and distribution of advertising, marketing, websites, books, magazines, newspapers, catalogs, packages and other media in printed and digital form.

→ LEARN MORE
A Fresh Look at a University Website

EVENTS

RECENT NEWS

Cal Poly GrC TAGA Team wins three awards!
Oct 1, 2023
Congratulations are in order as Cal Poly’s Technical Association of the Graphic Arts (TAGA) Student Council took home three awards at the Society of Industrial Artists and Designers (SIAD) conference.

UGS Promoting Covid Safety Measures
Sept 1, 2023
The University Graphics Services (UGS) team is promoting COVID safety measures to ensure a healthy working environment for all staff and students.

Staff

<table>
<thead>
<tr>
<th>NAME</th>
<th>OFFICE</th>
<th>CONTACT</th>
<th>OFFICE HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleen Twoney</td>
<td>26-201</td>
<td>(805) 756-7385</td>
<td>Virtual via Calendar, Monday-Friday 11:00am - 11:00pm. Also by appointment.</td>
</tr>
<tr>
<td>Colleen Twoney</td>
<td>26-201</td>
<td><a href="mailto:dhamey@calpoly.edu">dhamey@calpoly.edu</a></td>
<td>Virtual via Calendar, Monday-Friday 11:00am - 11:00pm. Also by appointment.</td>
</tr>
<tr>
<td>Colleen Twoney</td>
<td>26-201</td>
<td><a href="mailto:dhamey@calpoly.edu">dhamey@calpoly.edu</a></td>
<td>Virtual via Calendar, Monday-Friday 11:00am - 11:00pm. Also by appointment.</td>
</tr>
</tbody>
</table>
Figure 6
Wireframes of the High Fidelity Prototype

Figure 7
Snapshots of the High Fidelity Prototype

WHAT IS GRAPHIC COMMUNICATION?

Founded in 1946, Cal Poly’s Graphic Communication Department represents one of the best-known
A Fresh Look at a University Website

Mat Pica Pi (MPP)

Join Mat Pica Pi, a social/service club built on the premise of meeting other Geeks and getting more familiar with our department.

LEARN MORE

Cal Poly Iter8

We are Cal Poly’s first hands-on product design lab and agency for students. Collaborate with teammates on quarterly projects.

LEARN MORE

UX Fest SLO

UX Fest SLO is a student-run event designed to promote UX’s presence at Cal Poly. Established in 2020, this inaugural event bridges the gap between user experience and college students.

University Graphic Systems (UGS)

Trying to find a senior project to get you involved? UGS may be the perfect blend of individualized focus and teamwork that you’re looking for.

FIND US ON CAMPUS

Directions from Grand Avenue Parking Structure

1. Get to the top level of the Parking Structure
2. Once here move outward on Pacheco Way, then take a left along Grand Avenue
3. Follow this until you hit S Perimeter Road and then take a left to follow S Perimeter Road onto campus.
4. Follow this Road past the Recreation Center, and Graphic Arts building 26 will be to your right

NEED TO GET TO CAL POLY FIRST?

Directions from Via Carta parking lot

1. Follow Via Carta onto campus until you hit S Poly View Drive
2. Once here take a right onto S Poly View Drive and follow this down the hill
3. Along the way Graphic Arts building 26 will be to your left

NEED TO GET TO CAL POLY FIRST?
A Fresh Look at a University Website

Prospective Students

A Peek into Graphic Communication

What is Graphic Communication?

Cal Poly's Graphic Communication Department represents one of the best-known programs of its kind in the nation. The discipline includes media and mass communication involving the creation, production, management and distribution of advertising, marketing, websites, books, magazines, newspapers, catalogs, packages and other media in printed and digital form.

→ Learn More

What concentrations are there in Graphic Communication?

The Graphic Communication Department prepares its students for a variety of careers including everything from printing to publishing, as well as and packaging and other digital implementations. Pairing hands-on experience with general education courses provides students with a broad grasp of the industry and its climate.

→ View Concentration Info

What courses are offered in the curriculum?

What other opportunities does Cal Poly Graphic Communication offer?

How do I apply to Graphic Communication?

Want to stay updated with the GRC happenings?

Note. The high fidelity interactive prototype can be experienced on Figma via the link below:

https://www.figma.com/proto/TwtDXOVBIphfYA4voQiRu/Prototype?page-id=313%3A7998&node-id=313%3A7999&viewport=594%2C209%2C0.07&scaling=min-zoom&starting-point-node-id=313%3A7999
Evaluation

To gather qualitative findings, the designers conducted five expert reviews with experienced faculty to assess their impression of the current landing page and discuss what needs to be improved. After completing the prototype, the designers conducted five more expert reviews to ask for their final evaluation and know whether or not the improvements were fulfilled.

The designers also measured the amount of clicks it takes for users to reach a given destination to fulfill their quantitative findings. The test was completed by their fellow classmates in GRC 462, who put themselves in the shoes of a prospective student as they browsed the redesigned landing page.

Results

Expert Reviews

The designers conducted additional expert reviews with multiple Graphic Communication professors and the former department chair, Dr. Ken Macro, to evaluate the usability of the website from a faculty and advisor perspective. Some of the significant insight gathered through the expert reviews included:

- The navigation structure should utilize dropdowns to organize the pages
- Finding the balance of too much repetition and too little of repetition is key
- The high-fidelity prototype was much more intuitive than the current website
- Less is more when displaying important information

Usability Testing

Additionally, the designers conducted usability tests with fellow current students to gather insights on the navigability of re-designed website structure, using an interactive high
fidelity prototype on Figma. The designers found that on average, with the new website structure, it took a marginally shorter amount of time for students to locate their desired destination and find the academic information they needed.

 Conclusion

The changes made from the original Graphic Communication website to the redesign prototype allows for better user experience since the navigation, hierarchy, and aesthetics were improved substantially. The redesign follows the constraints of branding guidelines while also satisfying the needs of each audience segment which includes current students, prospective students, transfers, faculty, and more. Every change in the website’s layout and design was purposely chosen with the user’s goals in mind. For example, the call-to-action buttons allowed students to directly navigate to the academic information needed. Faculty and advisors also experienced greater ease finding the resources they needed to guide prospective and current students in the correct direction.

 Reflection

At the beginning of the project, the designers were only planning to redesign the Graphic Communication’s landing page. As the designers were in the process of designing new layouts of the homepage, it led them to work on other pages of the site which got overwhelming very quickly. Instead of doing one webpage, the designers redesigned 21 pages in total. The designers are proud of the work the designers completed on those pages, however, if the designers were to do this again, the designers would have planned accordingly so that the designers would be better prepared for the significant amount of workload the prototype required. In the end, the designers are glad that the designers took on the responsibilities for the additional pages, because the final
product of their project is way more impressive than if the designers just completed the landing page.

Following the rules of the Institutional Review Board (IRB) was a limitation the designers faced during their research phase. The designers were unable to collect data from Cal Poly students or employees so it made it difficult to find subjects for their user testing. The designers were limited to the students in their GRC 462 class so the data the designers gathered is not as extensive as the designers wanted it to be. However, the designers were able to get enough data to complete their project, but it would have sped up workflow if the designers were able to use other Cal Poly students.

As for the future plans of their project, the designers hope to stay in contact with Colleen Twomey, the Graphic Communication Department Chair, to see the website redesign actually play out. The high fidelity prototype along with their research will be presented to Twomey which will then be relayed to the Dean. The Graphic Communication department needs the Dean’s permission to migrate from Drupal to Wordpres so that their design can be implemented. While overseeing the project, the designers hope to hand off their prototype to a future GRC 462 student to fulfill these goals and see it to the end.
References


https://doi.org/10.1016/j.chb.2006.04.001


https://doi.org/10.1007/s12652-018-0686-6


https://doi.org/10.1088/1742-6596/1517/1/012071

https://doi.org/10.1016/j.ijhcs.2006.06.009

https://doi.org/10.1007/978-3-319-58706-6_22