A SOLUTION THAT ENHANCES COLLEGE READINESS FOR HIGH SCHOOL STUDENTS

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Table of Contents

Problem

The minimum requirement for most jobs today is a bachelor's degree. Many students of color face a myriad of barriers in gaining access to resources to help them enroll in college. Affirmative action was initiated by the federal government to counter this. It demanded that states and institutions are to "take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin." While this policy attempts to address a problem of structural inequality by making blatant racism in the admissions process illegal, it does not address the problems that lead to certain races being at a disadvantage at this point.

According to the National Center for Education Statistics, only 52% of 2011 high school graduates from low-income families enrolled in college immediately after high school; compared to 82% for student that come from high-income families (1). Many students' college aspirations are determined by their experiences in high school - from the number of APs offered, to the availability of college counseling, to the quality of teachers, and more. High schools in lower income areas tend to struggle in more of these areas. As states and federal governments offer less support to public education, more of the funding has fallen onto local parties, creating more disparities between schools. Those that grow up in these areas are often unaware of the different types of resources that are available in order to help them gain access to college enrollment as high school curriculum and involvement play a major role in determining their success in a college a campus.

There are many organizations that provide services for better education for low-income and underrepresented students. Programs such as NCAN work to increase college options by offering mentoring and coaching to prepare students for college (2). While these programs have been proven extremely helpful, their services are very limited. These services are not offered in every school and they are often delivered in a vertical manner. The programs have a specific defined objective and fail to address the other obstacles that low-income students face.

Solution

With regards to the problems underrepresented students face, it's evident that inequitable resources and the simple lack of knowledge about the US college system limits their ability to enter higher institutions. To combat this, our design needed to be as comprehensive and accessible as possible for students and we decided to create a website that provides students with a holistic view of the college application process and compiles all the resources and information they might need while navigating the college application process.

CollegeSource presents an overview of the college application process in a chronological way through a timeline that is accessible from the home page and the headers. Each link takes the user to more detailed information, going from an overview of the college application process, to a look at one year of highschool, to a look at one task to be completed that year.

As a website, CollegeSource is accessible to students from any place that has working wifi and a computer whether it be at home, on their phones, at school, in public libraries, or any other area. There are no downloads or accounts required to access the site, allowing for easy access. While creating a profile is not required to access site, it is an available option. Creating a profile allows for the user to see more resources catered towards their situation and interest as well as allowing them to access personalized timeline.

Figure 1
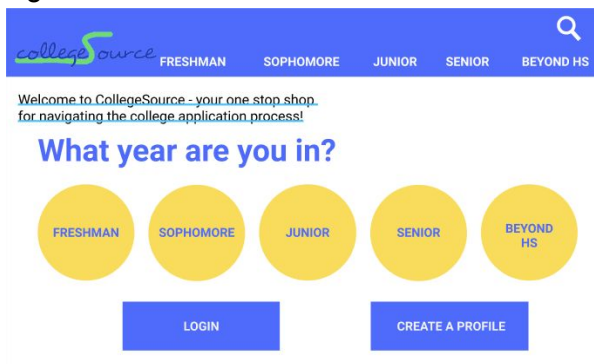
The homepage is kept simple to highlight the main features of the site - a timeline broken up into five sections (freshman, sophomore, junior, senior, and post application) and an optional login. Each of the timeline sections are linked to a page similar to the one in Figure 2. The login button takes users to Figure 4 and the create a profile button takes a user to Figure 5.

Figure 2
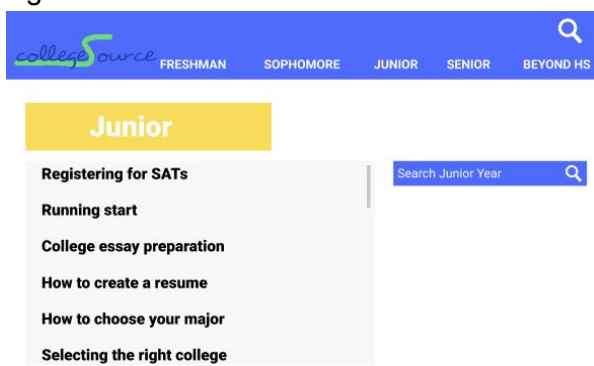
The timeline sections are linked to a page that includes the tasks to be complete in that time and links to more information and resources for each of these tasks. By organizing these tasks in this way, Users are able to find information relevant to them easily while having access to a holistic view of what is to come as well. Clicking on any of the tasks takes the user to a page like Figure 3.
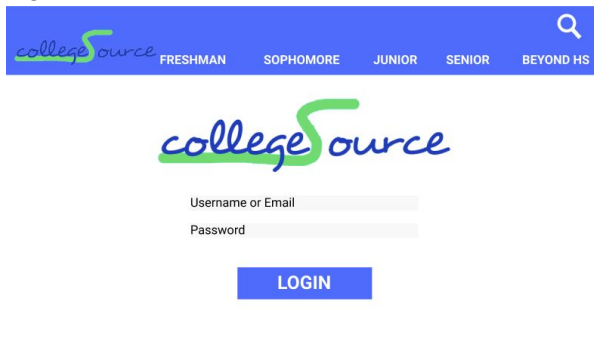
Figure 3
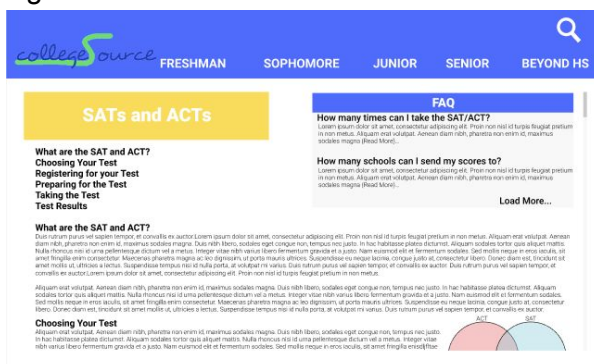
When a task or topic is selected, the user is led to a page about that task. This page includes a mini table of contents at the top and information broken into subheadings to make the information more digestible. Students can scroll through the page to find the information they need without having to read every word by skimming the headers as well as jump to select headers through the table of contents. An FAQ is included as well and provides more specific information about the topic that may not apply to everyone.
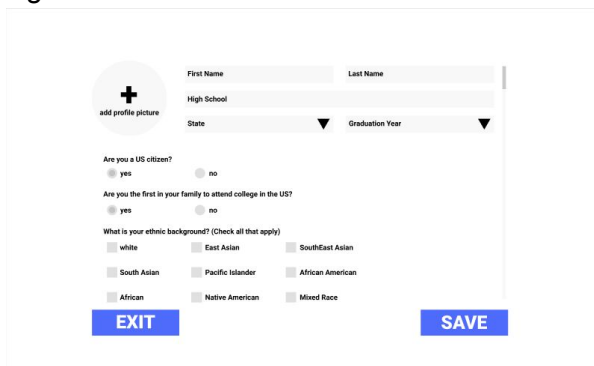
Figure   4

The login page for CollegeSource is very simple and prompts the user to input their username and password to log back in.
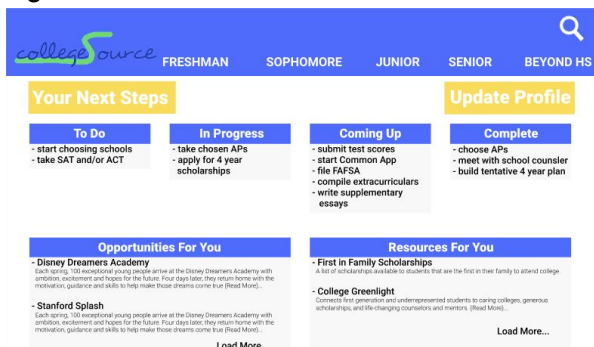
Figure   5

The create profile option takes users to a page where they are prompted to fill out the information that is used to personalize a timeline and resources. The page asks for information like ethnicity, interests, location, and more to filter through the information in the site for the user in Figure 6.

Figure   6

When someone logs in or creates a profile, they are taken to their personalized landing page that looks like this. The page includes a to do list of the tasks that the student should be completing in their situation based on information they shared in Figure 5. Clicking on the task takes the user to a page like figure 3 while dragging the task allows the user to move the task into other columns like complete or in progress. The opportunities and resources are also based on the student's interests and context and clicking on the opportunity or resource takes the user to the main site of the opportunity. Clicking Update Profile takes users back to Figure 5 where they can adjust their information as needed.

EVALUATION

After creating our prototype, we managed to interview a couple high-school students from different schools and different class standing. Using the technology probe method, we were able to deploy prototype into context and through interviews we were able to gather data on our design.

During this process we, conducted several usability tests and defined some tasks for our sample to complete. Prior to beginning our user study, we informed participants that we are testing specific aspects of the design and not them. We then proceeded to ask them to complete tasks; some of which were 1) creating a profile 2) navigating through class standing timeline 3) searching through a discussion forum 4) finding events that suit their needs 5) making sense of the different forms and contacts available. The different tasks we had users complete aligned with our goals that we wanted our users to achieve. We refrained from providing users with any knowledge about the site beforehand or answering their questions in order to discover which aspects of our design was confusing. When the user was unable to complete a task, we asked them to think aloud, which gave us a better sense of some of the issues they encountered while using our design. The user test helped us understand why some users failed at the certain tasks.

One of the recurring problems we noted was that users did not have the ability to go back due to design failure to incorporate an undo button. Our users had to go back to the homepage and repeat the processes in order to get to the page they were looking for. We found that the timeline (our intended main feature) was only accessible on the home page and we noted that there was a need to make this accessible from any part of the site. While we have not yet implemented a solution to this breakdown, we made a note of it so that we can change this later. We also found that the four buttons in the header (Forum, Events, Contacts, Forums) were the most accessible pages within the site, but the results were not tailored to individuals. The results were not dependant on whether they were logged in or not and so we noted that logging in should change the results of every page to better match the needs of the user. In a similar vein, we also learned that the search feature was not specific enough and that many users wanted more tailored search results so we will add the option to filter search results if users are not logged in so that results can be more relevant to the student. While users tests proved to be extremely helpful, a simple heuristic evaluation with a team of experts would have been a good idea before deploying our design to users.

Limitations

While our design has the ability to provide resources otherwise that may have not been available to our target population, there are some limitations to consider. Our website covers a holistic overview of the college application process and focuses on preparing students for college as early as freshmen year. As a result, we lack in depth information about each step about the process and cannot provide super specific information on our own. Though we try to link more in depth and official sites for each step, the responsibility falls on the students to seek out information from these external links.

Secondly, our website is designed for US students who receive education from a standardized curriculum. International students and those who attended non-traditional forms of schooling will not be able to take advantage of the resources our website provides as issues like visas and international testing are not covered. Additionally, our website is in English, excluding those who are not familiar with the English language. Because most of the information on the page is conveyed in the form of text, not understanding English will make our website virtually inaccessible to a user.

Lastly, in order to access this website students need access to technology. Though we tried to make CollegeSource as accessible as possible by selecting the form of a website instead of an app, eliminating the need for a personal device to access it, as a website CollegeSource still requires internet access. If students do not have a personal computer, they will have a harder time accessing our site. They will have to go out of their way to visit the library or use school computers or might not be able to utilize CollegeSource at all.

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