



Analysis of Issues with DSS Accommodations and our Proposed Solution

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What is the Problem?

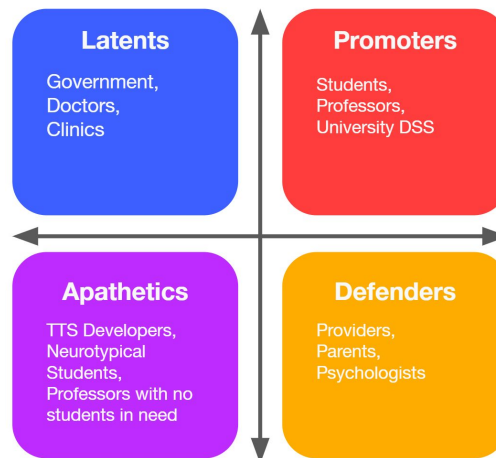
The Problem

At LMU and many other colleges in America, students are required to receive doctors notes for each learning disability that they claim to have. Students have also expressed concerns with the tedious process of requesting accommodations and scheduling alternative test times for exams (Anonymous Poll via Reddit, 2020). This is time-consuming, expensive, and inconvenient for college students, especially for those who are from lower socioeconomic classes who have less access to primary care physicians.

Who are the target users and why?

The target users are college students with mental or physical disabilities who need accommodations for their classes. These students often find that accommodations for their needs are time-consuming to get, and as student needs change over time, their necessary accommodations need to be updated as well, which creates unnecessary stress(Clark).

Users would also include doctors, professors/teachers, and medical staff of schools. The goal of our solution is to make accommodations available to students as quickly as possible and by including these users, it would speed up the process significantly.



Who are *not* target users?

We would not like to target users who do not have learning disabilities or no need for our solution. This would include recent graduates, adults, children who do not have learning disabilities, etc..

Who are our potential users?

Potential users are anyone in school who has a learning disability and would like to ease the stress of having to go to the doctors every time they need accommodations. They would also be doctors and schools who would like to help these students who are in school that need accommodations but may not be able to visit a doctor any time soon.

What are the legal requirements for accommodations?

Colleges which receive federal funding must either follow Title II or Title III of the Americans with Disabilities Act of 1990, meaning that they must provide sufficient accommodations for students with physical or mental disabilities, as well as refrain from participating in exclusionary behaviour towards those with disabilities. In the scope of accommodation requests, this means that universities must process accommodations claims and provide inclusionary support where appropriate, without excluding individuals based on assumptions of their abilities; accommodations must be agreed upon (Americans with Disabilities Act of 1990).



What is the current solution?

Colleges, such as the UC system and LMU, tend to accept accommodations requests through email, with the student filling out their medical information in a form in addition to a doctor's note. The college then processes the information and responds to the student on which accommodations they will receive in either an email or a portal. Then, each semester, students must apply these accommodations to their classes through a portal, or through direct communication with their school's disability services center(Anonymous). While doctor's notes may be reused for certain accommodations, they may not be reused for new accommodations with this system(Clark).

What is our solution?

Our solution is to create a web portal, DocuMed, in which students can directly communicate with their school's disability services center at any point in the year to adjust their accommodations without the need for another doctor's note. The portal will also allow students to transfer their necessary medical information between schools should they transfer between colleges that utilize our system. DocuMed will also provide portal access to doctors, streamlining the process through which medical notes are distributed to schools, saving students time and money.



Tasks

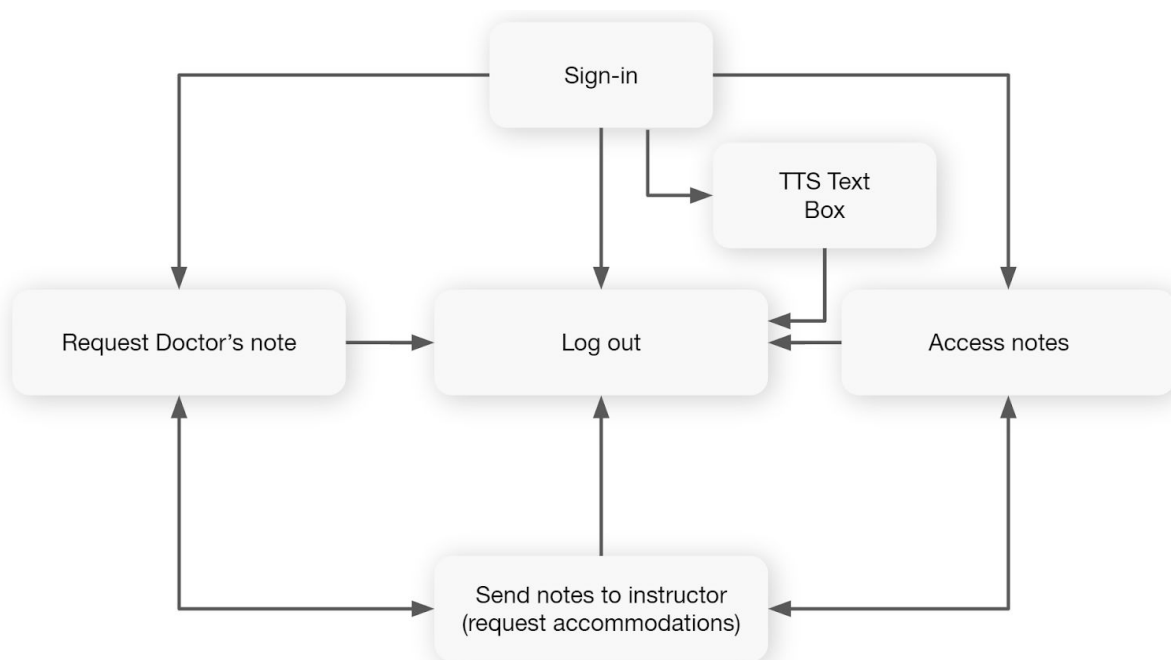
What tasks will our users perform?

Our users will have the tasks of most account based websites such as **signing in/out** and **accessing uploaded documents**. Users will also need to **upload PDFs** of the notes and **input** certain information like electronic signatures, dates, etc. Tasks more unique to our site would be students **selecting the accommodations** or doctors notes they would like their school to see. Doctors will need to be able to **send electronic forms** through our site, and school admin users will need to be able to **approve accommodations** and/or notes.

Task Environment

For most tasks, the student will not be expected to be in a stagnant environment for extended periods of time. The process of signing in, requesting/accessing/sending notes, and logging out are not time-consuming processes. It may take about 5 minutes. But it is expected that the user may be in either a private location like their room, or a public location like a lobby or classroom. The tasks would all be performed via a laptop or PC.

Task analysis (Student-end)





Tasks	Subtasks
Sign in	Insert User ID
	Insert Password
	Hit enter
TTS Text Box	Paste text in for TTS playback
	Play/Pause/Adjust Speed of playback
Request Doctor's Note	Input Doctors contact info/username
	Include a message
	Include learning disabilities
	Hit send button to send
Access Notes	Select Doctors Note
	Option to Send Note to Specified Instructor
	Upload PDF
	Send PDF to instructor by hitting send
Send Notes To Instructor	Input instructor contact info/username
	Include a message
	Include requests for accommodations
	Hit send button to send



About our Site

What functionality does our site provide?

Our site will provide functionality best suited for potential and target users. For PDF uploads we will need a large and very secure database to store everyone's private files. But for a user, this will be a simple drag and drop method, or users will be able to browse manually through their computer files. The site will also have Text-to-speech so that users can use our app in classes as well, for communication from student to teacher. And, of course, we will have sign in/out functionality to keep our users data secure.

What criteria should be used to judge if your design is a success or not?

Our criteria that we will use to judge if our design is a success is whether students with learning disabilities can effectively use our application or not. Things we will need to keep in mind are colorblindness, sensitivity to flashes or sounds, and alarming colors. If we can minimize clicks and unnecessary navigation so that people *enjoy* using our site, it will be successful.



What we Learned

Since the target users of DocuMed are students with physical or mental impairments, it is especially crucial that the user interface of our web app is accessible and simplistic in its design. We learned through interviews that visual and auditory impairments are covered under ADA guidelines, meaning that we should not rely on audio inputs nor create a visually displeasing or difficult to read web app. Additionally, we were shown which accessibility technologies we should incorporate into our webapp to make it more accessible, such as speech to text, or text to speech technologies. Through this, we learned how to research about a problem that we previously had little experience with. We also learned how to find a unique problem and come up with a personalized solution.



Works Cited

Clark, Michaela. Personal interview. 24 Sept. 2020.

Anonymous. Personal interview. 22 Sept. 2020.

Americans With Disabilities Act of 1990. Pub. L. 101-336. 26 July 1990. 104 Stat.
328.

Anonymous Poll via Reddit. 22 Sept. 2020.