Milestone 1

Bright Solutions

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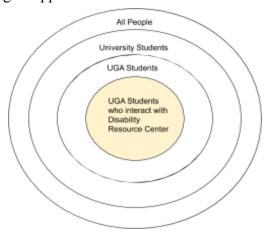
Redesigning The University of Georgia DRC AIM Portal

The University of Georgia (UGA), like many other universities, provides students with various resources including accommodation for a student's disability. The disability resource center or DRC is a central place students with disabilities can go to for help. The DRC provides students with numerous accommodations including but not limited to alternative testing, classroom, interpreting and captioning, housing, transportation, and course related accommodations ("Student Accommodation Guidelines"). By law the university must "make reasonable accommodations in programs and activities to provide equal access to qualified persons with disabilities" as stated in The Americans with Disabilities Act of 1990 ("Teaching Students with Disabilities"). Of the many resources available to students through the DRC, many need alternative testing to access a place separate from their classroom to take exams as their disability interferes with their ability to take their test. As such, once a student starts attending UGA and registers with the DRC to set up accommodations for their disability, they will be eligible to take their tests at the DRC instead of their regular classroom.

Testing accommodations can include extended time given to a student to give them ample time to complete it with breaks in between if need be. In order to have access to alternative testing, a student must provide documentation to the DRC detailing their disability and then sign into their DRC account via the AIM portal to schedule exams for their classes to be taken alternatively or away from their classroom. The portal is a helpful tool for students to set up alternative testing to help them succeed in their classes. Despite this handy tool being available to those with a disability, the portal is not exactly user friendly and could be better designed to optimize user experience and make it easier to utilize. There is a cluster of information on the student's dashboard that does not necessarily need to be there and distracts one from getting to what they actually want to do. Important information is presented as an error, and scheduling an exam requires users to click a link on the sidebar that leads to a form for setting up a test rather than presenting that on the front of the page or dashboard. There are constant reminders to complete setting up accommodations for testing for classes even after that has already been accomplished, and students must seek approval from there professors to take exams outside of the regular class time which students end up doing personally and not via the DRC. Issues like this add up and further make user experience annoying rather than seamless and positive. After reviewing the portal and how a student would use it to schedule their exams, Bright Solutions has come to the conclusion that the portal needs to be redesigned to better user experience and streamline procedures involved in scheduling an exam.

Users of Alternative Testing at the DRC

The main users of the DRC AIM portal for alternative testing are UGA students with disabilities. Our core age range target is 18-25, but users can be as young as roughly 15 (dual-enrollment students) and as old as 70 or 80 (older graduate students). This is an appropriate target group because these users will interact with this interface on a regular basis and use this consistently throughout their time at the university. There are various types of disabilities affecting the students who use the AIM portal to schedule their test times and dates consisting of physical, cognitive, and psychological impairments. These impairments include but are not limited to ADHD, visual impairments, and dyslexia. Each individual disorder presents a unique challenge for designing a solution that will address the issues students have with the portal when scheduling an exam. All users, regardless of any disorder, should be able to efficiently and quickly schedule their tests using a supportive interface.



The image above displays the overall populace of people narrowed down to specifically UGA students who require assistance from the DRC. There are various impairments this subset of UGA students are faced with. Below are some of those disabilities that often require individuals to schedule tests through the DRC's portal, the characteristics of the specific disability, and the implications in the design process. They are a few of the many disabilities UGA students are impacted by.

ADHD: Attention-Deficit/hyperactivity disorder is defined by the Mayo Clinic as "a chronic condition including attention difficulty, hyperactivity, and impulsiveness." In order to account for these traits, design guidelines exist for designing for people with ADHD. In a paper by Dr. Lorna McKnight of the University of Central Lancashire titled "Designing for ADHD: in search of guidelines", Dr. McKinght discusses fifteen design guidelines for creating applications to be used by people with ADHD. These guidelines include "Design[ing] materials so the layout is neat and uncluttered," "provid[ing] a 'calm' environment with soothing colours" without "decorations or distractions," and "organise[ing] items in an orderly way".

Visual Impairments: Students with visual impairments often need extra time on tests, and their needs should be considered in the design process. Adding a high contrast between the foreground and background elements will be helpful as well as making sure the font is large enough to be legible.

Dyslexia: According to Paul Crichton, the Head of Accessibility and Digital Inclusion at Test Partners, dyslexia is a "condition that affects people's ability to learn, read, and spell." According to Chrichton, there are a number of digital tools and design imperatives. For instance, using a sans serif typeface, bolding instead of italicising, and using dark text on a light background. Additionally, it is helpful to have options to experience the information through audio or infographics to help alleviate some of the burden.

Bright Solutions has utilized a stakeholder analysis as well to demonstrate the different types of users and their interactions with the DRC's AIM portal. The users have been grouped into four types consisting of Latents, Promoters, Apathetics, and Defenders.

Stakeholder Analysis:

Latents:

- No particular interest in product, but have the power to influence it if they do become interested
- Key Groups:
 - University Administrators

Promoters:

- Interested in the product, and have the power to change the product
- Key Groups:
 - Students with disabilities who need to schedule exams

Apathetics:

- Little interest in product, and have little power to change it
- Key Groups:
 - Students with no disabilities not registered with the DRC
 - Students from other schools
 - Visitors to UGA

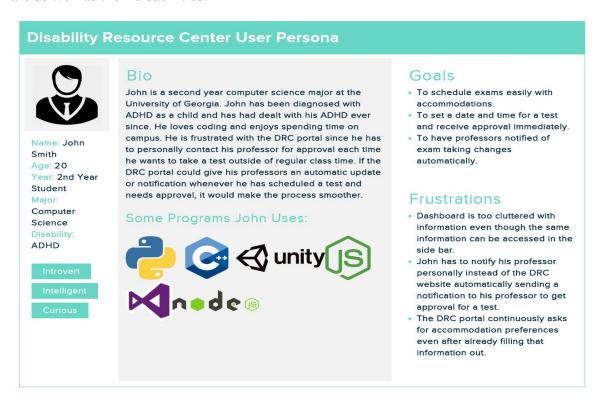
Defenders

- Have vested interest in the product, and
- Key Groups:
 - Professors at UGA
 - Incoming UGA students and potential UGA students
 - Notetakers for students with disabilities
 - Parents of students with disabilities

Of the student populace, those with disabilities are outnumbered by those who are able bodied. The able bodied students would not be Bright Solutions prime target audience as they do not require the aid of the DRC in their day to day life on campus. Those who are not our target users also consist of those who are not students at UGA. This includes professors, administrators, Athens residents who are not affiliated with the university, and students who do not attend UGA. The stakeholder analysis above further pinpoints the various users who interact with the AIM portal or have little to no interaction with the portal and are thus barely affected by it or know about it.

Persona

To help the company visualize the user base of the AIM portal, Bright Solutions created a user persona to get an idea of who the portal is catered to in general. The fictional persona helped Bright Solutions take a step in trying to understand what a typical user of the portal would be frustrated with, granted not all users have ADHD due to how diverse the students who utilize AIM are as well as their disabilities.



From the persona, it can be understood that a student using the AIM portal wants to be able to set up a date and time for taking a test and receive approval from their professor immediately if said test time is outside of regular class time. It also seems like a student would like for their

professor to receive immediate notification of the exam the student has set up. These things do not seem to get done quickly and easily as a student would like to based off of the persona. There is no immediate notification sent to professors via the portal, instead students end up having to do so personally which takes much longer depending upon how long a professor responds.

User Research

In order to get an even better understanding of the target user base, Bright Solutions conducted interviews with those using the AIM portal and was able to gather insightful details from two students. Given the small size of the sample group, we did not find it valuable to compile statistics. However, each interviewee gave valuable information for designing the web application. Below are listed short profiles of each interviewee, including their demographic information and notable quotes, but omitting their real names to preserve their anonymity and privacy.

Interviewee A:

Gender: Male Ethnicity: White Year: Senior

Major: Computer Science

Disability: ADHD

On the focus of the portal: "The rescheduling option is in small text on the sidebar menu, even though it should be the main purpose of the portal."

On the distracting error message: "[It] looks like it's an error message. It's actually just a notification."

On the current dashboard: "It's so cluttered, and the information on it takes up too much space than it should. Information on what my accommodations are should not show up every time I log in to schedule a test. It's annoying."

Interviewee B.

Gender: Female

Ethnicity: Mixed Race

Year: Senior

Major: Communication Sciences and Disorders

Disability: Seizures

On scheduling exams for a course that was dropped: "Even though I dropped a class or withdrew from a class, I still keep seeing those classes on my dashboard with the reminder that I still have to schedule exams for those classes."

On receiving reminders about upcoming tests: "I get reminder emails from the DRC about an upcoming test I scheduled, but I don't ever get notifications or reminders about upcoming tests on my dashboard after logging into the AIM portal. I wish there was something similar to a Google calendar on the dashboard to show me visually when and at what time I have my scheduled tests."

From these responses it can be gathered that if these two students were dissatisfied with their experience using the AIM portal then there are bound to be many more dissatisfied students. Both interviewee A and B have noted how the alternative testing link can only be accessed via the sidebar of the portal when it should be in the center on the dashboard. It is the most essential reason why the students use the portal in the first place to schedule their tests at the DRC and yet it is relegated off to the side as if it is not that important in small font that is not easy to find at first glance. Interviewee A has also commented on how there are messages at the top of the dashboard that are meant to highlight something important, but instead they appear as an error message. This appears rather distracting. Interviewee B has also mentioned that these supposed notifications are actually not that helpful especially when they constantly remind her to schedule exams for classes she has dropped or withdrawn from. At UGA there is a system students use to sign up for courses known as Athena, and if a student is registered with the DRC, those classes are automatically added to their AIM portal so that they can schedule exams if need be for those courses. Unfortunately, dropping or withdrawing from a class does not automatically drop that course from a student's AIM portal nor stop the system from continuously reminding them to schedule an exam for that course. Another common complaint from the two interviewees is that the dashboard is too cluttered with information about their accommodations for classes that can easily be accessed on the sidebar as well. This distracts users from doing what they came to do, schedule an exam for alternative testing.

Both of the students are also annoyed with how they have to do an extra step to setting up an exam for alternative testing if they schedule an exam outside of regular class time, getting approval from their professor. This would not be such an issue if the process of notifying the professor about exam dates and times were immediate upon after a student schedules a test, but instead, a student would usually email their professor outside of the AIM portal to notify them and seek approval if the test is outside of class time. This makes the process longer than it needs to be. Interviewee B also specified how she would like it if she could get a notification or reminder on her AIM portal dashboard about upcoming tests and get a visual representation of this via a calendar similar to Google calendars about when and what time they will be. As of now, reminders are only sent via email, and there is an option to be notified via text message but no notifications on the dashboard itself after signing in. These issues highlight just how vital it is to redesign the portal and provides insightful feedback on student experiences with the portal and how Bright Solutions can fix these problems.

Requirements Analysis

Functional Requirements:

Bright Solutions would like to redesign the current DRC AIM portal and make it a web application students can efficiently use to schedule alternative testing for their classes. The redesign process seeks to provide reminders of upcoming exams on the dashboard of the portal for users. The process also involves getting approval from professors for taking exams on certain days and times outside of regular class time to be automatic and streamlined so that professors get an immediate notification from the portal after a student schedules an exam. The revised portal will also make sure that scheduling alternative testing will be one of the main options that users see on their dashboard instead of being relegated to the sidebar. Information regarding student accommodations for classes will be accessed from a link that will either be on the dashboard or sidebar rather than being displayed on the dashboard and taking up space. If a student drops or withdraws from a class, there should be an option to remove that class from the student's dashboard or a way to remove that course automatically from the dashboard in conjunction with when the student drops from a course. This way students will not be continuously reminded to schedule exams for a course they are no longer taking. Instead of continuously sending reminder notifications on a student's dashboard about something they have already done like selecting accommodations or scheduling tests, those reminders should stop upon completion of the action. Bright Solutions aims to set up these commodities to assist students better.

Nonfunctional Requirements:

The company aims to make the portal accessible for students with various disabilities from mental to physical impairments like ADHD and cerebral palsy. Utilizing the portal should take under five minutes from the time a student signs in to the student having scheduled their tests. Because many users have disabilities like ADHD, it is important that we design the system so the task can be completed quickly (Source: interviewee A). It is also important to keep in mind that the color scheme of the portal should be inclusive to various types of visual impairments. Including large font and clear writing is key to helping users read text on the portal as well. Making sure that the portal's dashboard is not too cluttered needs to be thought of as well as users should not be distracted by any copious amounts of information that may distract them from what they came to do. The users should not be overloaded with information to help reduce anxiety, and they should not be faced with a sensory overload either. Since the age of students using the portal varies due to undergrads being as young as 15 and graduate

students being as old as 70 or 80, the platform must be easy to use for anyone regardless of their age.

Environmental Requirements:

Students will be able to use the DRC's AIM portal regardless of where they are as it can be accessed on any computer by simply logging into their AIM account. The application must be able to interface with Athena or another scheduling program like Courseoff that will show the times of UGA classes if given a specific CRN number. This is because students must schedule test times when the class is in session if not given permission to do otherwise by the professor (Source: interviewee A). For security reasons, the student must login to the portal through their UGA account. This will help to ensure and verify that a student is a current student attending UGA and that they are registered with the DRC. This also prevents those not registered with the DRC from scamming their way out of taking a test in the classroom when they actually can due to being able bodied. David Berry, a psychology professor and director of graduate studies at the University of Kentucky has pointed out in one of his studies that students are capable of faking that they have a disability.. Through a study he conducted, he found that "students can successfully fake ADHD," and all they needed was to search on Google about symptoms (Butschek). Although most disabilities are considerably much harder to fake, ADHD is one such disability that many college students take advantage of by faking. Therefore, UGA has to remain vigilant and make sure that those seeking to take advantage of the DRC's resources are not able to do so since it takes away opportunities from those who actually need them.

Task Analysis

Description of Important Tasks Performed by Users:

The users will be utilizing a desktop environment that they can access from their personal computers while on and off campus. The users will be in Athens-Clarke county for the majority of the website use. This site can be accessed off campus for students who live off campus or who are taking online courses as well. Because this site is online and can be accessed anywhere, geographical location will not impact the users. Utilizing this platform implies that users are able to access a computer whenever they need to schedule testing accommodations and are currently an active student at the university. There are no additional charges to using the platform, so it does not impact those with various economic standing as well, given they have access to a computer. Once a student has been registered with the DRC as someone with a disability in need of accommodations

and resources, they can sign into the AIM portal using their student credentials consisting of their username given to them from the university and password they made. After logging in, through this website: https://teton.accessiblelearning.com/UGA/, students can then schedule exams through the alternative testing link on the sidebar. Students also select their accommodations for classes and exams which includes options like having a reduced distraction environment, extended time for tests, and breaks in between tests. Scheduling tests and setting up accommodations are the two main activities a student would use the AIM portal for.

Description of Important Characteristics of Task Environment:

Pain Points:

There are distracting "error" messages that persists throughout the portal's pages which are actually notifications regarding important information or reminders for students. The portal continuously asks for accommodation preferences even after users have already entered their information. The convoluted layout makes it difficult to navigate to test accommodation scheduling, and there is no direct way to schedule testing outside of the regular class meeting time. This is not effective if accommodation involves extra time for tests in the case a student has two finals in one day. Due to extended time given to students, that time might run into the next final which will cause students to have to schedule for two tests that may go outside of the regular class time. It is difficult to get immediate approval from professors when students have to contact professors themselves rather than the portal sending a notification to a professor upon scheduling an exam running outside of class time. After dropping a class, there are still reminders sent to a student's dashboard about scheduling exams for that class when the student is no longer taking it.

Our Ideas for Improvement:

Bright Solutions proposes to change the notice messages to be less distracting and to appear on the dashboard underneath a notifications tab to let users know that they have important notifications to take a look at. This way these notices will not take up space at the top of every page on the portal. The sidebar option titled "Alternative Testing" will instead be placed in the dashboard as it is the main reason students use the portal to schedule tests. This will make it easier for students to visibly see where it is and to access it. Once accommodation preferences have been filled out, they should not be persistent on the home page or dashboard. A link will be provided instead to change accommodations if needed on the dashboard or sidebar. This will prevent student accommodations

for all their classes from taking up space on the dashboard. The current design is not optimal for scheduling test times generally as well as outside of class time. Bright Solutions will streamline the process of scheduling exams outside of class time by automating the request process by allowing the user to confirm they want a test scheduled outside of the class period and automatically sending an email request to the professor. The email sent to the professor will also contain the option to approve of the scheduled exam as well which will be sent back to the portal and DRC. If a student has dropped a class, they will have the option to remove that class from the listing of classes on the dashboard.

A simple structured task analysis of the DRC AIM portal:

GOAL: Schedule and take an exam with the DRC

<u>DEVICE</u>: The users will be utilizing a desktop environment that they can access from their personal computers while on and off campus.

TASKS, SUBTASKS, ACTIONS:

- 0: Schedule and take an exam with the DRC
 - 1: Log on to AIM portal
 - 1.1: Navigate to AIM website
 - 1.2: Type in username & password
 - 1.3: Click "login"
 - 2: Select Accommodations (one time per semester)
 - 2.1: Scroll to "Select Accommodations for Your Class"
 - 2.2: Select which course to set accommodation preferences for
 - 2.3: Select "Continue to Customize your Accommodation"
 - 2.4: Select accommodations for each class
 - 2.5 Click "Submit Your Accommodation Requests"
- 3: Wait for professors to accept the accommodation requests (one time per semester)
 - 3.1: Check email for confirmation from the DRC
 - 4: Select "Alternative Testing" from the sidebar menu
 - *5: Schedule the exam*
 - 5.1: Select which course to schedule an exam for
 - 5.2: Select the date on which you wish to take the exam
 - 5.3: Select the time at which you wish to take the exam
 - 5.4: Confirm exam scheduling details
 - 6: Wait for exam time confirmation
 - 6.1: Check email for confirmation from the DRC
 - 7: Take the exam
 - 7.1: Arrive at the exam location at the scheduled time & date

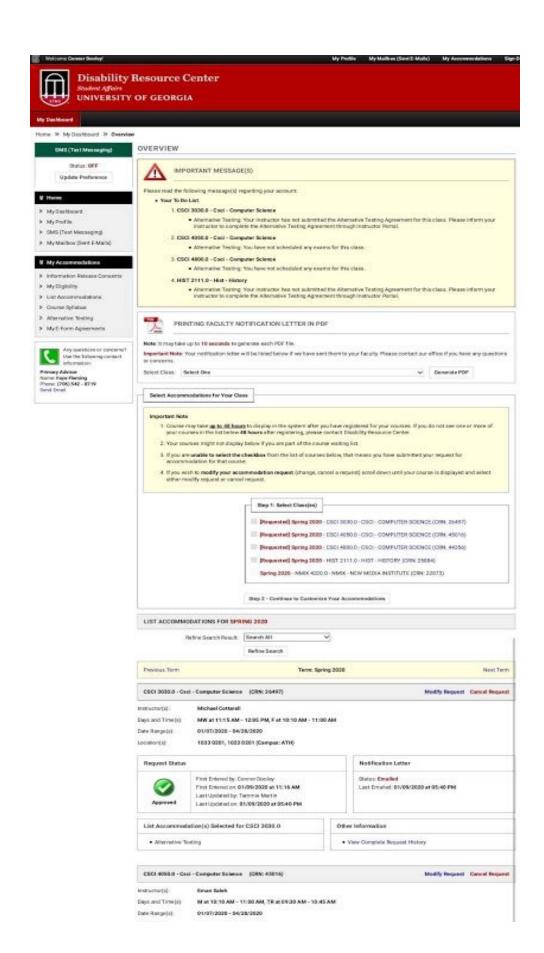
7.2: Take the exam

METHOD PLAN:

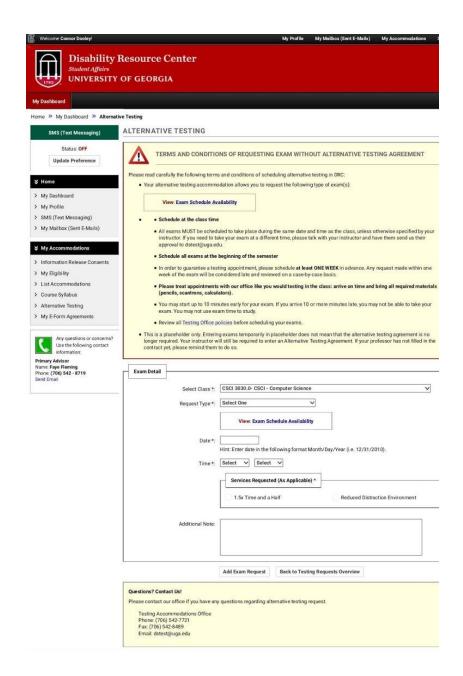
New User: Steps 1-2-3-4-5-6-7 Returning User: Steps 1-4-5-6-7

The Current DRC AIM Portal

The Dashboard:



The current dashboard has a lot of unnecessary information on it, and doesn't feature some of the most used features of the platform. Firstly, the "Important Messages" box looks like an error message due to the icon in the top left. The "print faculty notification letter" and "select accommodations" boxes are next, but the majority of users will use these features once per semester despite the fact that these stay on the dashboard year-round. Below is a list of your accommodations. The primary function of this system, the ability to reschedule tests, is relegated to a single link in the sidebar. The design of this page is also wildly inconsistent, there is seemingly no rhyme or reason to what is a header, what is a subtitle, what is body text, etc. There are also unnecessarily mixed ordered and unordered lists. The lack of stylistic consistency makes it impossible to scan the page for any meaningful information.



The Alternative Test scheduling page continues with the error-box-that's-not-an-error-box issue.

Solution & Interpretative Evaluation

What is the solution:

Our project aims to redesign the DRC test rescheduling platform to be easier to use and navigate through for users who require separate testing accommodations.

What will it do:

Streamline process of rescheduling tests and focus the portal on the test rescheduling process.

Why is it needed:

The poor design of the current portal makes it difficult for students with disorders like ADHD to efficiently and reliably schedule their tests.

CITATIONS

"Teaching Students with Disabilities." *Teaching Students with Disabilities* | *Disability Resource Center*, drc.uga.edu/content page/teaching-students-with-disabilities.

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