

Authorization for Accommodation Optimization

Manisha Kanodia

Developer/IT Service Offering Manager

Information Technology Services, University of California San Diego

858-534-0581 | mkanodia@ucsd.edu

Project Team Members

Information Technology Services

- Jonathan Whitman- Director of Student Information Systems
- Carlo Del Frate - Assistant Director, Administrative Technology Services
- Manisha Kanodia - Technical Project Lead
- Phillip Faniola - UX Engineer
- David Moreno - Developer

The Office for Student With Disabilities (OSD)

- Joanna Boval - Director
- Susan Kelly - Senior Disability Specialist
- Alejandra Cervantes - Disability Specialist

Project Summary

Currently students who receive disability accommodations from the OSD, deliver their Authorization for Accommodation (AFA) letters to instructors and department OSD liaisons by arranging a meeting in person to deliver a physical copy of the letter. The new student portal establishes a convenient way for students to procure and deliver AFA letters and streamlines the process for staff, increasing their time to focus on providing essential services and advising students with disabilities.

Problem

The amount of time spent every year for the AFA letter delivery process is approximately 2000 hours (~1300 hours by OSD and ~650 hours by liaisons/instructors). This manual process is causing a high level of frustration among the students and is an inefficient way of utilizing university resources. Student frustrations stem from the difficulty in scheduling multiple meetings with staff and instructors with highly impacted schedules paired with the inconvenience of physically delivering the letter to multiple locations on campus every quarter.

Goal

The goal of the project is to establish an efficient method for the procurement and delivery of AFA letters starting Spring/Summer 2019. This new method will increase OSD staff availability, allowing them to focus on providing necessary services to students with disabilities, while increasing efficiencies for instructors and department liaisons. The solution will also address student concerns, providing a better learning environment and increase student satisfaction.

Solution

A new system is under development which will enable OSD students to accept accommodations that have been approved by the OSD office. The application will email the AFA letters to department liaisons, instructors, and the student; as well as notify OSD of the acceptance by integrating with existing systems.

Key points of innovation

- The system will allow OSD students to accept accommodations and notify instructional parties 100% electronically - a major improvement to the manual OSD student experience (especially those with mobility issues)
- Students will have the ability to send a revised letter if required.
- Students can accept only accommodations which they wish to accept on a course-by-course basis. Previously, all accommodations were accepted up front, using unnecessary resources at the department level.
- The student system is fully AA WCAG 2.0 compliant for accessibility.

Impact

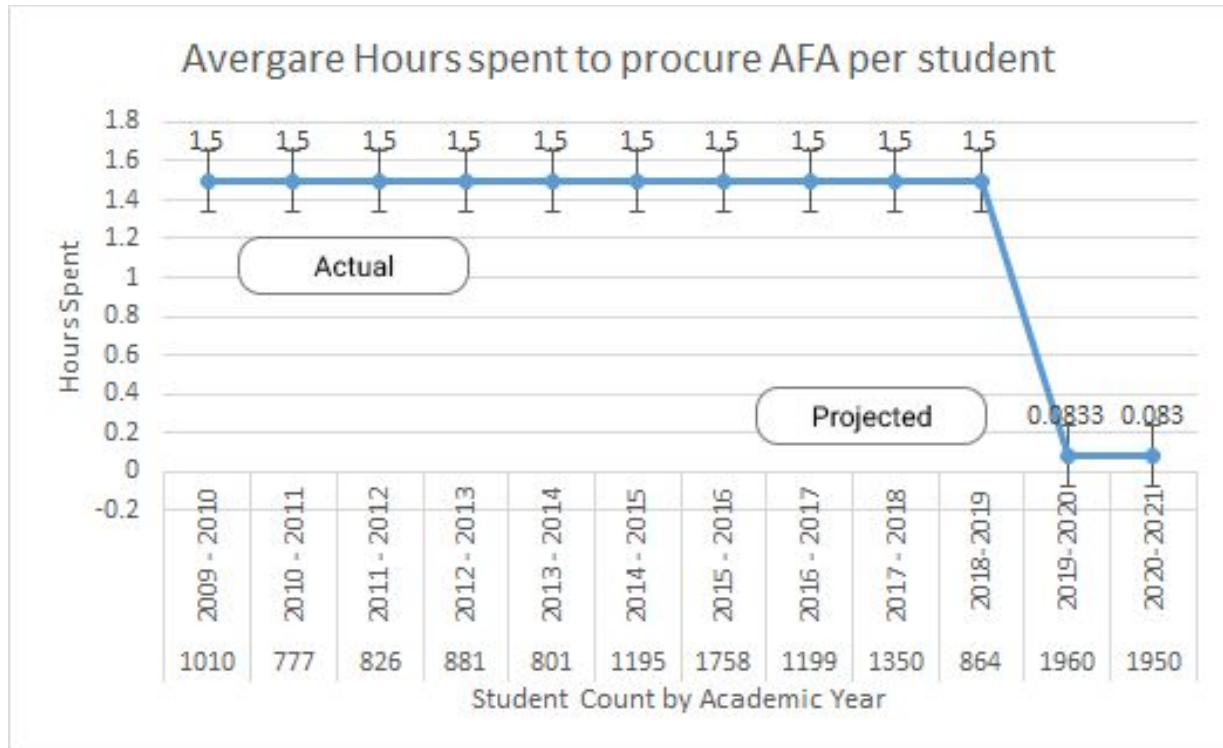
UCSD strives to provide a comfortable learning environment for students. Providing an alternate mechanism, in lieu of the manual process, to deliver AFA letters will save resources on campus and provide an enhanced experience for students with disabilities and address their concerns.

Additionally, staff resources will be saved in terms of administering the previous manual process. Time will be recouped for valuable one-on-one advising sessions and physical resources, such as paper and printing hardware, will be conserved.

- The electronic system will save an hour per student, per quarter for OSD staff (disability specialists).
- The instructors, instruction assistant, or department liaison will not need to meet with students just to receive the letter, which will save an average of 15 mins per student, per quarter with each liaison, instructor, and assistant.
- Students will not have to visit the OSD office and course departments every quarter to receive and deliver the letter.
- The electronic system will save significant amounts of printing effort, paper consumption, and storage space not only at OSD but also all departments on campus.
- Department liaisons will have sufficient time to administer accommodations, as they will not be waiting for students to hand deliver letters.

Measures of Success

- Cost Savings** - 1.5 hours of disability specialist and departmental liaison time saved on average per student per quarter. With an average of 1300 OSD students per year, these employees now have additional 1625+ hours per year for advising which could project to about \$48,750 (~\$30/hr) **quarterly** savings. Also, there will be about 325 hours saved for instructors/instructor assistants. which could project to ~\$24,375 in **quarterly** savings (~\$75/hr).

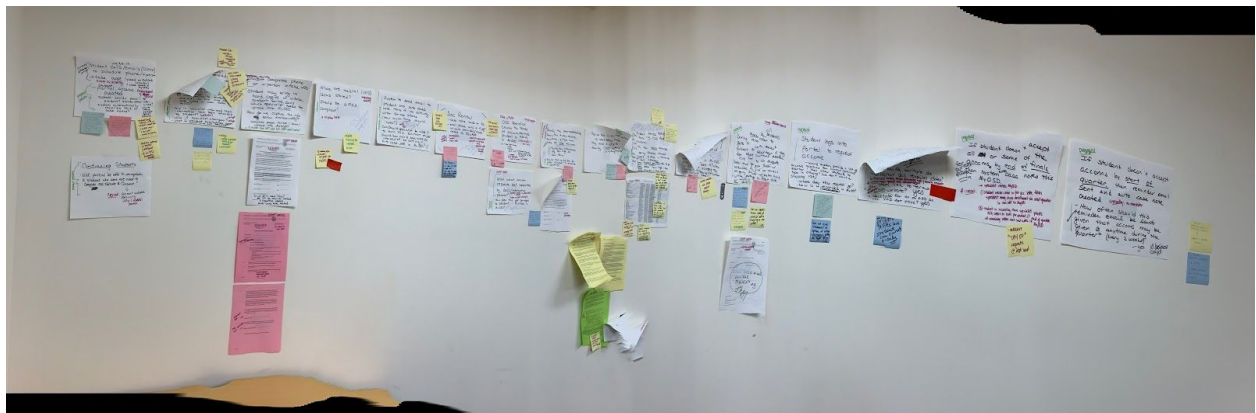


Projected drop in hours spent per student in acquiring AFA Letters

- Cost Avoidance** - Major cost savings overall on paper and printing resource consumption, storage space, savings on resources used to administer approved accommodations not used by students e.g. classrooms, proctors, etc.
- Complement Benefit** - Student satisfaction
- Enhancement to Core Mission**
 - Better student learning experience
 - Addressing concerns about manual handling of AFA letter
 - Collectively saving 1950+ hours per year for employees to provide essential advising and counseling for students.

Collaboration

A highly collaborative approach under the DMAIC (Define, Measure, Analyze, Improve and Control) model was utilized for the project; primarily, a team effort between the Office for Students with Disabilities and IT.



Process mapping at the OSD

Requirements were collected from a representative cross section of campus departments/units in order to understand the needs of the widest audience as possible. In addition, we connected with UC Irvine to understand a previously implemented solution to help inform our decision making.

Deployment

Phase 1 will be deployed in May 2019. Phase 1 will cover most accommodations that students will receive but excludes niche accommodations such as housing and dining which will be implemented in the next phase.

The OSD will let its students know that the new tool is available by handpicking students and introducing them into this new process; eventually expanding the user base to include all their students.

Next phases will be planned shortly thereafter and data will be gathered from phase 1 deployment to measure and set up the control parameters. Next phases will entail automatization of note taking and digital media conversion services offered by the OSD.

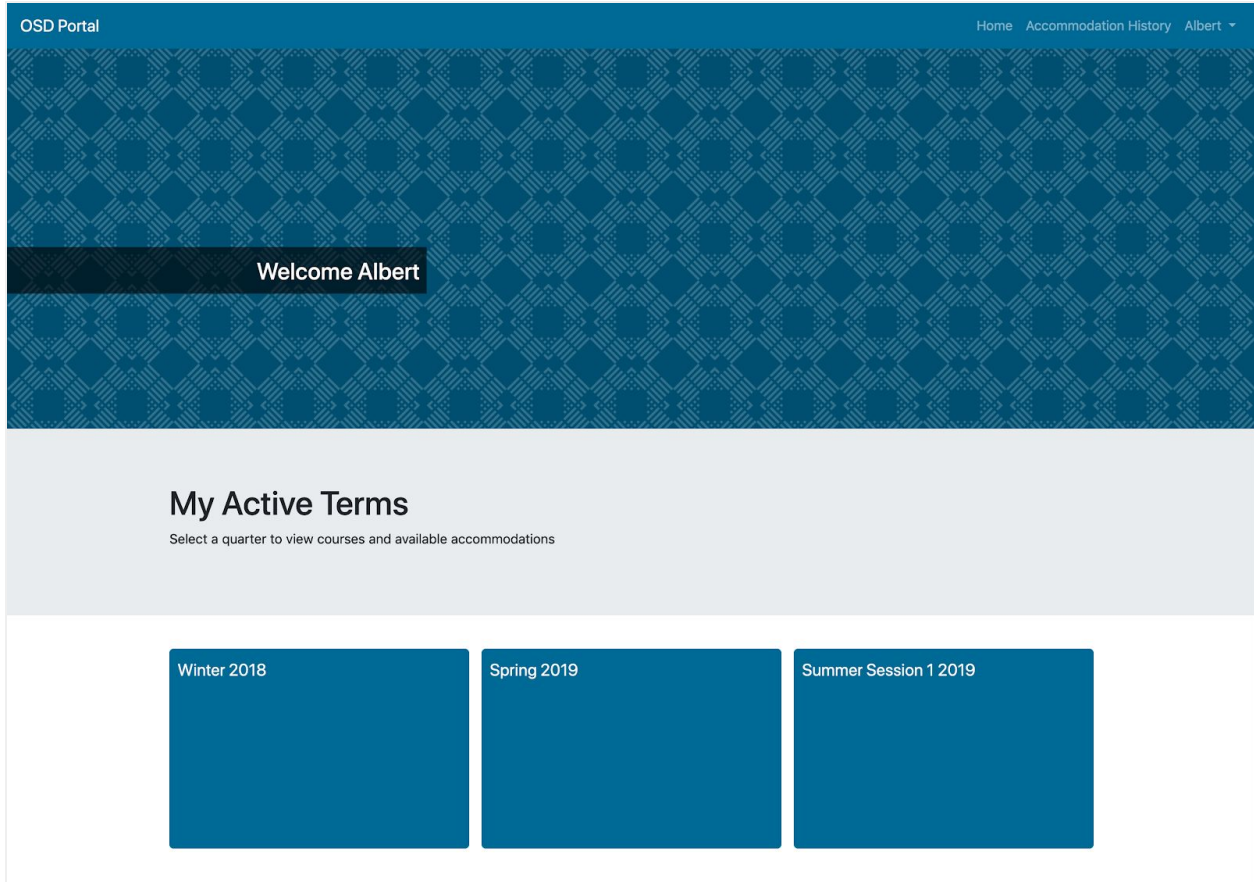
Technologies Used

Our team has used Angular for front end development and .NET core for backend API integration with SQL Server as the database. The approved accommodations are accessed in the new portal via APIs from the existing OSD staff portal. The application communicates with several APIs in the central campus API Manager that are developed and published by various teams on campus to retrieve roles, student, and instructor information.

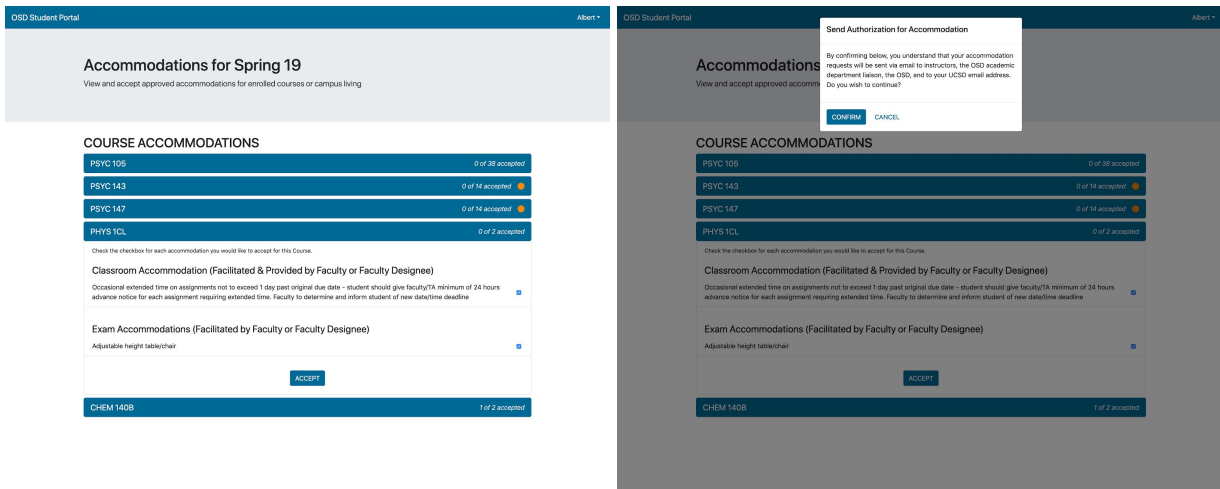
Additional Resources

OSD Website: <http://osd.ucsd.edu/>

User Interface Images



OSD Portal home screen user interface



OSD Portal - viewing and accepting accommodations