

ONLINE STUDENT SUPPORT PORTAL PROJECT BRIEF

July 2016

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PROJECT OVERVIEW / GOAL

The **Online Student Support Portal** is an effort to enhance the experiences of all students involved in online learning at USFSP. Supported by DL funds, the project aims to address all "non-course" aspects of the online learning experience – registration, enrollment, financial aid, advising, research and more – through timely help and accessible information.

Following an exhaustive needs assessment and review process, we determined that custom-built software would best meet the project goals. This approach, we assessed, would allow for the greatest flexibility and smoothest integration with existing systems – a solution that truly reflects the needs of the USFSP community.

The platform we're developing includes three components:

1. a custom chat engine that allows for both realtime and asynchronous communication between students and USFSP support staff,
2. a custom search engine that provides fast, easy access to upcoming course offerings, and
3. a custom knowledge base comprised of answers to the most frequently asked questions, with content driven by chat submissions.

PROJECT TEAM

The project team comprises **Casey Frechette**, who manages the project and provides creative and technical direction as a full-stack developer, **Sharon Austin**, a contributing developer and tester for usability and accessibility, and **Berrie Watson**, a systems administrator who provides critical technical support, hosting of the project and insight into organizational factors in his role as Head of Systems & Digital Technology.

INITIAL CHARGE

The portal team received its initial charge in 2014 from the then dean of the library, Carol Hixson. Dean Hixson outlined the charge as follows:

Develop a robust, interactive web presence for USFSP's online students, consulting with all invested parties on campus and beyond.

To accomplish this, Dean Hixson advised that we:

1. review SACS documentation and related state guidelines on support for online students and
2. gather information from students, faculty and staff on the functional needs for supporting USFSP's online students.

PROJECT PROPOSAL

Based on this charge, we conducted initial research and wrote a proposal to articulate the audience, goals, assumptions and functional requirements of the project.

Our research involved a critique of several dozen universities around Florida (and beyond). We analyzed their approaches to the support of online students and, while no school offered a platform that matched our goals on the whole, several incorporated elements of interest.

As a result, we identified several areas of interest for our own work:

1. A content-rich area for potential students to browse information gathered from multiple USFSP units.
2. A unified information portal with mobile-friendly views of content tailored to the needs of the student.
3. Optimized and centralized data gathered from multiple systems that gives a comprehensive view of student progress, including a "Dashboard" showing, possibly, GPA, classification, currently enrolled courses.

The full proposal can be viewed on the Digital Archive:

<http://dspace.nelson.usf.edu/xmlui/handle/10806/12977>

WORK TO DATE

Since writing this proposal, our work has progressed on two main fronts: conducting a needs assessment and developing custom software. These efforts have further refined our focus in several important ways.

NEEDS ASSESSMENT

We have directed most of our time toward an extended internal needs assessment. To date, we have completed four activities:

1. Brainstorming meetings with the project team
2. Interviews with over 20 key stakeholders around campus
3. Beta testing with a select group of students
4. A survey of about 50 students from around campus

A summary of each of these efforts follows.

Interviews

Several key themes emerged from the interview process, including clarity around key values and concerns as they relate to support of online learning. Identified values include the following:

1. We celebrate the distinctive identity and brand that is USFSP.
2. We are deeply concerned with student well-being.
3. We celebrate student success.
4. We believe in empowering students.
5. We highly value a personalized experience.
6. We believe in community involvement.
7. We are proud to be a veteran-friendly campus.
8. We believe in inclusion.
9. We are leaders in accessibility initiatives.
10. We are a research institution.

Concerns include:

1. **Students find it confusing and difficult to obtain information.** Information about online learning appears in different places and formats. Students aren't sure where to look or how to interpret the information they receive.
2. **It's a challenge to balance student privacy with the transparency needed to promote student safety.**
3. **Students are unprepared for online learning.** Many students approach online learning with misconceptions about the rigor required of the experience.
4. **Students are sometimes unprepared for college.** The transition from high school to college challenges many incoming students.
5. **Failure to provide timely, comprehensive support to a growing online student body may interfere with our alignment with SACS requirements.**

6. **Existing systems work to varying degrees, depending on the device from which they are accessed.** Some information is difficult to access on mobile devices or without the use of downloadable plugins.
7. **Seeking support presents a variety of privacy concerns, especially when students receive specific, personalized feedback.** Legal protections apply to certain information students might seek or share.
8. **Students sometimes struggle to connect with professors and advisors to address online learning support needs.**
9. **Accessibility for students with disabilities is still a challenge.**
10. **Students need easy access to information they want along with information we are legally obliged to supply, including Title IX and CLERY documentation.**

We have summarized findings from these efforts in various documents. Each has refined our understanding of how we can design and develop the most effective platform possible.

Beta Testing

Through structured beta tests, we have received detailed feedback from a handful of students. These students have tested functional prototypes and provided specific input on issues concerning the interface and functionality of the software. We have used this input to guide our efforts and plan a second, more extensive round of testing.

Surveys

Survey results have provided additional insight. After describing possible features, we asked students to report their openness to using a support portal, should one become available.

59.3 percent of students said they were extremely likely to use a portal, and an additional 31.5 percent said they were very likely.

When asked to assess what features would be most important, the following topics¹ were ranked highest:

1. Tracking progress on degrees
2. Getting course descriptions and requirements²

¹ This functionality already exists, but students must query different systems, and the information isn't presented in a consistent, easy-to-access format. This highlights the importance of providing consistent, accessible, timely content via the portal.

² We were unaware at the time that USFSP had been investigating a commercial service called "College Scheduler." This tool addresses the interface and usability issues and mimics some of the same functionality we had been developing. However, our version of course search differs from College Scheduler in several key regards. First, it does not require a NetID to access. This makes it accessible to parents, guardians and potential students. Second, it makes it easy to filter online classes. Third, it integrates seamlessly into the rest of the portal website.

3. Accessing the portal via Canvas and my.usf.edu

SOFTWARE DEVELOPMENT WORK / MAJOR PROJECT COMPONENTS

The needs assessment has provided an overall focus and direction for our efforts. It has refined the goals from the initial proposal, with a focus on several concerns:

1. connecting students to help,
2. providing relevant information, and
3. improving access to online course catalogs.

With careful attention to accessibility, we have been developing core elements of the portal, with a three-pronged approach in mind:

1. a customized chat platform that connects to key points of help,
2. a customized search capability, and
3. a customized set of common questions and solutions that continuously updates to reflect the most sought-after topics

We found that our original plan to use a WordPress-based framework would have been burdensome to develop and maintain³. As we prepared to align the technology with the vision, we examined the WordPress with a very critical eye, and came to understand that significant work would need to be done with the technology. Plugins were available, but they would further increase the bloat of an already bloated platform, and increase the maintenance workload. We could not in good conscience deliver a platform that would require such heavy maintenance -- we wanted staff to focus on the students, not the platform.

Accordingly, we opted to write our own content management system, one targeted to the needs of our students, and the staff who support them. The upshot of this decision is that more thought has gone into the design and the user experience. We're doing a lot of work on that with the help of one of our disabled USFSP students, Robert Beasey⁴.

³ This is because the WordPress platform is based on a blogging platform, with a hierarchy that encouraged management by siloed content. Management by silos was in direct conflict with USFSP's Vision 20/20 Strategic Goal #2: Student Success and Culture. Moving out of silos into a place of shared vision was one of the key shifts recommended by the Bold Goals teams.

⁴ We have removed some -- much -- of our initial design components, also, as we have found that our initial design was not mobile-friendly enough. We had to look under the hood to evaluate mobile-friendliness. For example, one feature that is a requirement for a truly mobile-first platform is that the web page "tasks" do not make too many demands on the platform. Large images are not a problem for desktop computers, but trying to load them onto a phone can present problems -- if not outright failure to deliver -- if not coded correctly. This is one simple example, but it illustrates the mindset we work with as we write code. To that end, we measure processes as we develop. That adds time, but we have largely been able to keep on track even though we incorporate this testing as we go.

CURRENT STATUS / NEXT STEPS

We are presently in the midst of intensive development work involving programming, graphic design and user experience development. We intend to seek additional input on our work from key stakeholders via a critical beta test phase that will begin on at the end of July. After two weeks of beta testing, we will spend an additional week making refinements to the platform and intend to have an initial version ready to launch at the beginning of the fall 2016 semester. We plan to consult with the deans, department heads and other key stakeholders to determine exactly how and when this rollout happens. A detailed timeline follows:

1. July 25: Conclude Major Development Work / Start Beta Testing⁵
2. August 8: Conclude Beta Testing / Begin Making Refinements
3. August 15: Complete the First Version of Portal⁶ and Prepare It for Launch
4. August 20: Migrate sandbox environment⁷ to library virtual infrastructure

FUTURE PLANS

Following the initial launch, we plan to monitor how the portal is used and make incremental improvements and additions. The success of the portal will also rely on ongoing support, both technical and in the form of USFSP personnel who monitor and respond to student inquiries.

A major goal of this project is to help the University fulfill requirements for SACS accreditation. Learner support is a critical part of this accreditation process. We use SACS documents to ensure that we do not stray from the requirements as we work on the design, so future plans would include any changes to align with changes in SACS requirements, should they arise.

Based on feedback sought throughout the process, we have decided to hold off on building the technical connections necessary to supply the portal with personalized student information (e.g., GPA, classification, currently enrolled courses, path to degree completion), but an exploration of these issues could be part of future development work.

⁵ One of our very next steps is to ask all the Librarians about chat (via “Ask-A-Librarian”) and how they currently use it. We would like for them to test a custom chat feature that we have built for the portal. In almost every interview with stakeholders, chat was either a recommended technology, or a desired one, for reaching students. To that end, we designed the chat so that managers and support staff in other departments could use it and retrieve any desired statistics.

⁶ We have built-in to the chat platform an ability for students (and parents) to ask questions anonymously, and accounted for a space in the database for tagging certain conversations as private ones, if need be. However, we want to talk to concerned stakeholders, including the Campus Police and the Wellness Center, before implementing the features.

⁷ After the conclusion of the design and development phase, the launch phase will require movement of the virtual environment from a testing or sandbox area to a more robust and supported environment within the library’s virtual infrastructure.

SAVE FOR LATER...

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We found in our interviews that many managers were concerned with student mindset and student culture in addressing any technology. It's important to note that we use our experience with students to address the "soft" features of student interaction, as well as the technology, in developing the portal. For example, in designing the chat feature, we wanted to ensure there was a method for students to ask for help anonymously if necessary. Cyberbullying came up in our conversation as a concern with stakeholders, so this was a serious consideration for us as we developed the design. For background consider the following reference:

<http://cyberbullying.org/anonymous-reporting-for-bullying-and-cyberbullying-incidents>

For an example of anonymous alerts used by a school system, please see: Zapata County Independent School District. Note that in this case, a capability to send text messages is in place. Part of the reason we were committed to a mobile-first platform for the portal was for this very reason of being able to take advantage of SMS technology, if necessary.

http://www.zcisd.org/apps/pages/index.jsp?uREC_ID=351228&type=d&pREC_ID=762287

Additionally, it was very important to us that the platform be developed as a mobile-first platform. This was not simply done to ride a wave of popularity. Mobile platforms have the ability to reach first responders in an emergency in a way that desktop platforms do not, have the ability to deliver information to our student servicemen and women overseas where only poor bandwidth is available, have the ability to reach students who do not have the finances to afford anything but a cellphone, and have the ability to expand our reach to students overseas -- thus encouraging a more international presence with our student population.

The term "mobile-ready" means different things to different people. One common use of the term is to use the term "mobile" design on one that is simply nothing more than a "responsive" design... that is, it has the ability to collapse and load all content onto a small screen, such as that found on phones and tablets. In our view, that does not make the design truly mobile. A responsive design on a small screen may actually create accessibility and usability problems, as content gets pushed down to the bottom of the phone or tablet; the content then effectively becomes out of reach for some with disabilities, or for those forced to use low-powered platforms. Again, we knew better, and could not deliver such a platform in good conscience, so we sought to develop an "adaptive" design, rather than simply a "responsive" one, and implement HTML5 web-app features where appropriate.

Below is an example of a screenshot showing the results of one of our test pages loading; Dr. Frechette developed special code to reveal the statistics so that we may track how long it takes for a page to load based on the customized database.

The first example shows how long it takes for the chat page to load for a first time "guest" user. The second example shows how long it takes for the index page ("home" page) to load for a manager, who has multiple roles.



Figure 1. Screenshot illustrating custom code used to evaluate page load for a guest user landing on the chat page.



Figure 2. Screenshot illustrating custom code used to evaluate page load for a manager landing on the home page.

We also use some off-the-shelf tools to evaluate network performance, and to look for, track, and isolate any bottlenecks created as a result of our custom code. In Figure 3, you will be able to see how we use the graphical output of performance evaluation to look for bottlenecks.

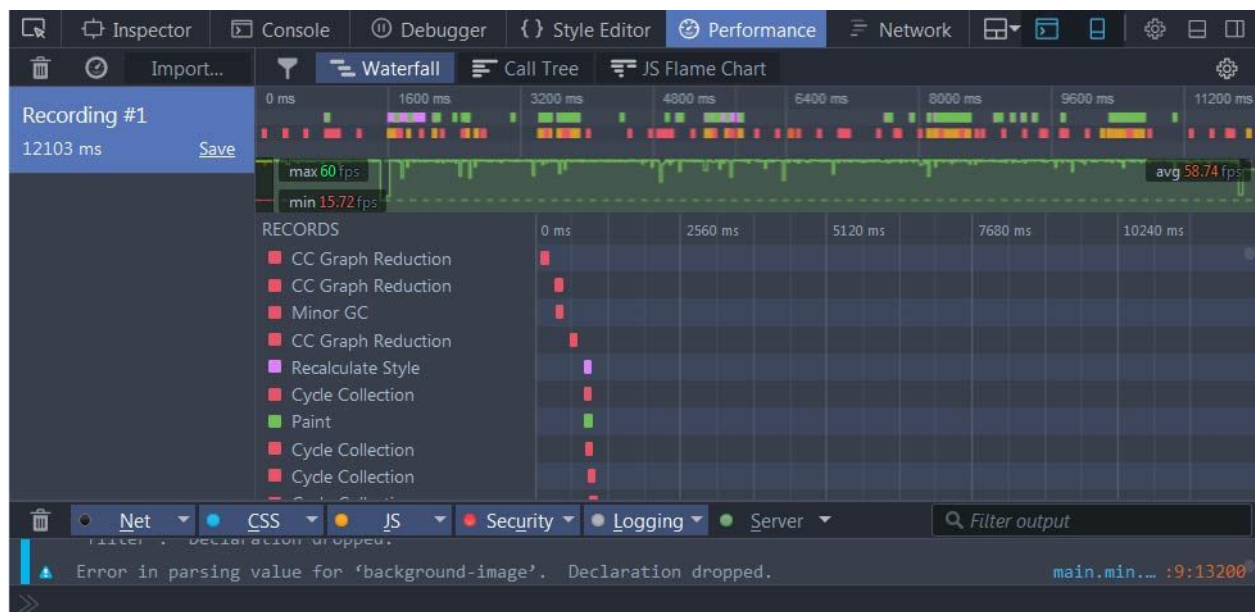


Figure 3. Screenshot illustrating use of off-the-shelf technology to look for potential bottlenecks in how the page performs, and to evaluate opportunities for improvement.

Added by Sharon July 15 2016 Message from the Regional Chancellor on USFSP.edu For consideration: Homepage portal features highlight the contact info featured in her message

A MESSAGE FROM THE REGIONAL CHANCELLOR

Many people across America are hurting today. In response to recent violence, we must come together in support of one another. As an academic community, we must model our own values. Among those values is Inclusion of Differences:

"We seek divergent voices and tell untold stories. We actively recruit students, faculty, staff and administrators who bring global and domestic diversity to campus, with emphasis on representing our evolving regional demographics. We notice where conceptual differences synthesize, complement — or clash. In classes, in meetings and in public forums, we invite difficult dialogues to enable everyone to better understand different world views. We strive to create synergy."

The causes of violence can be difficult to understand. If you are a student and wish to speak with someone, the USFSP Wellness Center is a safe and confidential space to receive support, and mental health counselors can be reached in person or after business hours at: [\(727\) 873-4422](tel:7278734422). If you are an employee, feel free to contact our Employee Assistance Program (EAP), which is available for confidential assistance at [\(800\) 327-8705](tel:8003278705).

We offer compassion to all of those affected by the tragedies of the last few weeks.

Sincerely,

Sophia Wisniewska