

DIXIE STATE UNIVERSITY



From Status to Stature

2015 REVAMP

planning, designing and developing the future of dixie.edu
by Alex Kolody

Where we are. Where we are going.

On Feb. 16, 2013, Utah Governor Gary R. Herbert signed HB61 making Dixie State the sixth university in the USHE system and the third open enrollment regional university in Utah. Having attained this treasured goal I believe I speak for everyone at the University when I say that we have some really big shoes to fill.

We did our best to prepare. Countless discussions, debates, and surveys were given in an attempt to rename the college. Feelings were hurt, disagreements were had, but we came together under a singular purpose for our amazing institution. Signage across St. George to Mesquite was being replaced. Roads were being renamed. This was an exciting time for our humble college now university. There was however much work to be done and many roads to cross.

“
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Forward Moving. Forward Thinking.

Two years into our new status and much has changed, including the new university president, Richard B. Williams. Under Richard's guidance a new strategic plan was created and approved. This plan stretches far into the future, preparing the university for success by clarifying our direction and building opportunities. With this plan many ideas were sparked and many of our traditions challenged.

Dixie State University is ready for something new, something innovative. This is our time to take advantage of a sweeping movement going forward through-out campus. Now is the time to question our best practices, to rethink our processes, to really improve our student experiences. I believe we can really create something amazing together here at Dixie that hasn't yet been given life.

My passion is in design and in particular web development. Working for the university I have always felt a strong desire to progress our dixie.edu website to a higher level. I was not alone in my desire. In fact there were many of us who not only thought we could do better, but were willing to put in the hard work and sacrifice to achieve this dream.

Bryan Poulsen, a talented developer at DSU, approached me about forming a new committee for dixie.edu sometime before April. It was perfect timing. We were going through so much change that it finally seemed possible to revamp the website.

Harmony Between Us.

This new committee would become a team of five with a newly formed workforce of student web interns. Our campus has never seen collaboration like this ever before. The marketing department working with the recruiters, designers working with professors, developers together sharing ideas.

The Team



Bryan Poulsen

Web Design & Development Adjunct

Role: WordPress Developer

Bryan is the developing brains behind the scenes. Whenever the committee has an idea, Bryan is the one who can take an idea and make it a reality.



Alex Kolody

Marketing & Multimedia Designer

Role: Front-End Developer & Designer

Alex is in charge of creating the new aesthetic of dixie.edu, giving life to the functionality that Bryan brings.



Rex Frisbey

Webmaster

Role: Content Manager / Lead Interns

Rex is in charge over the web interns who had to migrate over 9,000 webpages to our new CMS platform. He is also the one who answers the most to those on campus about the website.



Jared Madsen

Marketing Coordinator

Role: Branding Direction

Jared makes sure that we're all on the same page, focusing on the most important aspects of the site.



Matt Kearn

Instructor of Web Design & Development

Role: Mentor of Web Interns

Matt is in charge of recruiting and helping the new web interns as they migrate and create new web pages for the site. He also provides great insight and experience.

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For the New Site Design Comps Please Visit

<http://107.170.202.181/usability/>

The Problem with Stagnation

Our website has undergone many small changes in the past. The most recent being a rewrite of our css after becoming a university. Changes like these help to update our branding, but fail to deal with important issues like structure and processes. It is no surprise that our staff offices and many others are bombarded by phone calls asking questions that should be easily answered online.

Our biggest problem is in the area of information architecture, that is, our visitors to our website are having a terrible time finding the information they need. Our new president himself struggled to find what he needed when applying for his position! This problem has been compounded over the years to the point where people are creating their own websites off of dixie.edu to address it. Going off-template has been a nightmare for our brand and makes support nearly impossible. Off-template sites become outdated quickly as students who create them graduate and the outdated information creates confusion.

A List of Problems

In addition to our information architecture needing badly restructured there remains many issues with our old site. Below are problems that need to be addressed;

- Off-template websites with outdated branding and content
- Lack of true mobile responsiveness
- Lack of a true content management system
Our current process is extremely restricting, lacks many features, time consuming, and susceptible to many development errors.
- Inability to efficiently roll out updates
- Creating web forms is very time consuming and varies greatly from form to form.
- Departments do not know who to go to in order to get a web page updated
- Having one main webmaster does not allow enough time to make all necessary changes for all departments
- Webfonts allow for greater branding and need to be utilized
- Our competition has been ampping up their websites to where we look like we are behind and less modern
- Repeated and outdated content through the site
- Lack of focus for who the audience is
- Megamenu with too many links that are hard to find

This is only the beginning as everyday I hear about something needing to be improved upon for dixie.edu and a simple user test will reveal many many, more problems.

Testing Methods for Further Improvements

Heuristic Evaluation Criteria

A heuristic evaluation was done on the new site design in preparation for the information architecture overhaul. This would allow us to get a quick look at other problems that we need to look into while refining our site. The main measurements that were made consisted of;

- Match between system and real world
- User control and freedom
- Consistency and standards
- Recognition rather than recall
- Aesthetic and minimalist design

Scale (1–5) 1 = cosmetic, 2 = minor, 3 = medium, 4 = major, 5 = catastrophic

Information Architecture Evaluation Method

Coming from a previous iteration of the site the information architecture was already loosely established. It was, however, rather confusing and in need of some improvement. I decided that in order to get some more creative ideas that I would want to do an open card sort to get potential users the ability to form new perspectives on our grouping of content. Since there is so many internal difficulties it would be difficult to expect a user to create solid groupings of all the content. This means that more weight should be put on repeating labels/categories.

I decided to use trello as my tool for card sorting because of its ease of use. I did not find many people using this as their tool online but had thought of the idea because of trello's terminology and usage of 'cards'. Overall I think it worked out well as I was able to easily share my boards to users and am now able to show my results rather easily as well.

Observation-Based Usability Test

A usability test was given on the old dixie.edu site in order to help document pain points in our information architecture and to help provide context to how we are helping certain users find information. There were 5 users who took the test with times that ranged from 20 minutes to 35 minutes for completion. The scenarios and questions were based upon a list of personas of users that would be visiting dixie.edu for differing types of information. Each participant started each task on the homepage and was asked to navigate the site to find the information.

Below are scenarios for common situations on the current dixie.edu website that were tested. Users were asked to keep in mind what pages they were using in order to find the relevant information. They were also were to keep note if they found a task difficult or annoying.

SCENARIO 1

Introduction

You are a parent of a high school graduate looking to go to college. You're very concerned about the safety of colleges and are on a tight budget.

Task 1

Starting from the homepage of dixie.edu please find what the total number of arrests are for the year of 2006–2007.

Task 2

Starting again from the homepage of dixie.edu please find the private semester rates for the abby apartments near campus.

Task 3

From the homepage find the total cost of a resident student taking 12 credits a semester.

SCENARIO 2

Introduction

You are a freshman looking to go to college. You're not sure what degree you want to get and are not sure how financial aid works.

Task 1

Starting from the homepage of dixie.edu please find what courses would be required to get a bachelors of science in business administration.

Task 2

Starting again from the homepage of dixie.edu please find what kind of scholarships you could qualify for as a freshman who is a resident of utah.

Task 3

From the homepage find where you would start the application process online.

SCENARIO 3

Introduction

You are a returning student with some transferable credits from another college. You also have a slight learning disability that makes concentrating when taking tests difficult.

Task 1

Starting from the homepage of dixie.edu please find where you would go to see what credits you can transfer.

Task 2

Starting again from the homepage of dixie.edu please find what accomodations you can get for your disability.

Task 3

From the homepage find out how much you would have to pay for your application fee as a returning student.

Heuristic Evaluation Results

Scale (1–5) 1 = cosmetic, 2 = minor, 3 = medium, 4 = major, 5 = catastrophic

MATCH BETWEEN SYSTEM AND REAL WORLD

RATING = 2

The rating of 2 was given because of a lack of a page title. There has been talk of how to be able to tell what page you are on when on the portal pages. The current solution is to have the title below the slider on the section below. This breaks the convention of headers being the first text seen on a web page. The title was placed here for aesthetic reasons, but there may still be a way to modify the design to allow this heading to be placed first so that the portal page is obvious.

USER CONTROL AND FREEDOM

RATING = 2

The rating of 2 was given because of the way navigation is implemented. The menu that will be consistent on every page is the very top that has links to the portal pages, prospective students, current students, faculty and staff, alumni, and visitors. The menu below that is one that can be modified by the departments if they meet a certain criteria of content. The reason this would be a problem is that there can be situations in which a user has to proceed through certain webpages in order to access other information. Some of us on the committee are ok to make this tradeoff while others feel that there needs to be a more appropriate solution. The only way to be able to make a more informed decision will be to have more user testing done for the site navigation.

CONSISTENCY & STANDARDS

RATING = 2

The rating of 2 was given not because of this webpage but more about some others that exist. Since the committee is referencing portal pages as means to access category information, there seems to be a misunderstanding on what should be included in these portal pages. Also the terminology can be confusing. Team members need to be informed and trained on how to direct our users to these new pages. The reason for this is because of how vast these changes are across campus sites in order to give this system a fair chance at catching on. If there remains huge problems in our tests with users on navigation, we will have to find an appropriate accommodation.

RECOGNITION RATHER THAN RECALL

RATING = 1

Now that our portal pages have more usable information in them we must make sure that users are able to navigate these pages in a logical manner. We have divided up pages into the following categories;

- homepage
- portal pages
- department landing pages
- department content pages

We have differentiated these pages with the style of design as well as some of the conventions used. An example is that department landing pages contain either a fixed browser wide photo or a background video while the department content pages contain only breadcrumbs instead. We are also differentiating the department pages from portal pages by using a different background color for the navigation. We hope that this will make the portal pages visible different than others so as to mark their importance in the navigation system. The rating of 1 is given as we may want to refine the way we go about differentiating these pages cosmetically.

AEASTHETIC AND MINIMALIST DESIGN

RATING = 1

The rating of 1 was given because of the way we are handling our department navigation. Currently we have the default About, Admissions, Academics, Dixie Life, Resources and Giving links on the department navigation. This menu can change when you enter a different department according to their needs. The problem is more specifically in the visual design of our dropdown menu on some of these links. Some departments only have 1 or 2 links on dropdown menus which aesthetically looks strange. We intend to compensate some of these effects with written copy about the department, but that also brings unnecessary verbage, We are still discussing how to handle these specific content issues in our navigation design.

Information Architecture Results

The links to the 5 open card sort results are below,

- <https://trello.com/b/ixo9M5Ct/open-card-sort>
- <https://trello.com/b/DepjgFyM/open-card-sorting-2>
- <https://trello.com/b/9pciXKwL/open-card-sorting-3>
- <https://trello.com/b/yz1TSG3Q/open-card-sorting-4>
- <https://trello.com/b/RcLDyG3L/open-card-sorting-5>

I found that some users saw the need to place certain pages into multiple categories which goes to show how interconnected all these resources can be with each other. Some users divided by the types of people who would be looking for content and others by the types of content that would exist and where it would fall under. It would seem that more people tried to sort the categories by using the type of people than by other definitions.

We had decided awhile ago that our content which was already loosely segmented based on audience would still need to remain segmented that way but could be done so more aggressively. The current site caters to too many people at once and throws too much content at the user right away. Under our new structure the user will be shown content that relates directly to them through the use of curated and carefully constructed portal pages.

This architecture will be a form of a hierarchical tree in which all pages have a global navigation that links to the portals, prospective students, current students, alumni, faculty & staff, and visitors. There will be a default local navigation underneath the global that will link to important and most used webpages like the admissions page. This local navigation will be able to be customizable however. In the case that a department has enough information, we will allow the department to remove the default local navigation in favor of whatever categories they need to use.

There will be 2 utilities on the global navigation bar, search and the directory. I am in favor replacing the directory utility with a ribbon that drops down to reveal things like logins, campus map, directory, and a–z index. The committee however wants to force students to go to more appropriate places to login and find information. There are pros and cons to each method.

There will also be a tertiary navigation in the convention of a sidebar for department pages that require further levels. An example of this being used would be along the lines of, going to the business department, clicking on syllabi, and on the sidebar seeing the years of each syllabi created. This will allow enough flexibility for lots of content. There will also be feature to have those sidebar links collapse underneath another category to further separate items.

Observation-Based Usability Test Results

Scenario 1 (parent looking to help highschool grad child)

Scenario 2 (freshman looking for degrees and financial aid help)

Scenario 1

Task 2 (Find private semester rates for the abby apartments near campus) averaged the most amount of actions in order for users to navigate to the answer and also averaged the longest rate of completion. These results make a lot of sense and are very valuable. As the university constructs additional campus housing (which ironically has just started) they will need a much better presence online for information such as this.

Task 3 (Find total cost of resident student taking 12 credits a semester) averaged the shortest amount of actions and time in order to answer. This is good news for once! As affordability is one of our biggest selling points for the university we can rest assured that users don't seem to struggle on finding our resident prices. Many of the results for this task were under 10 seconds!

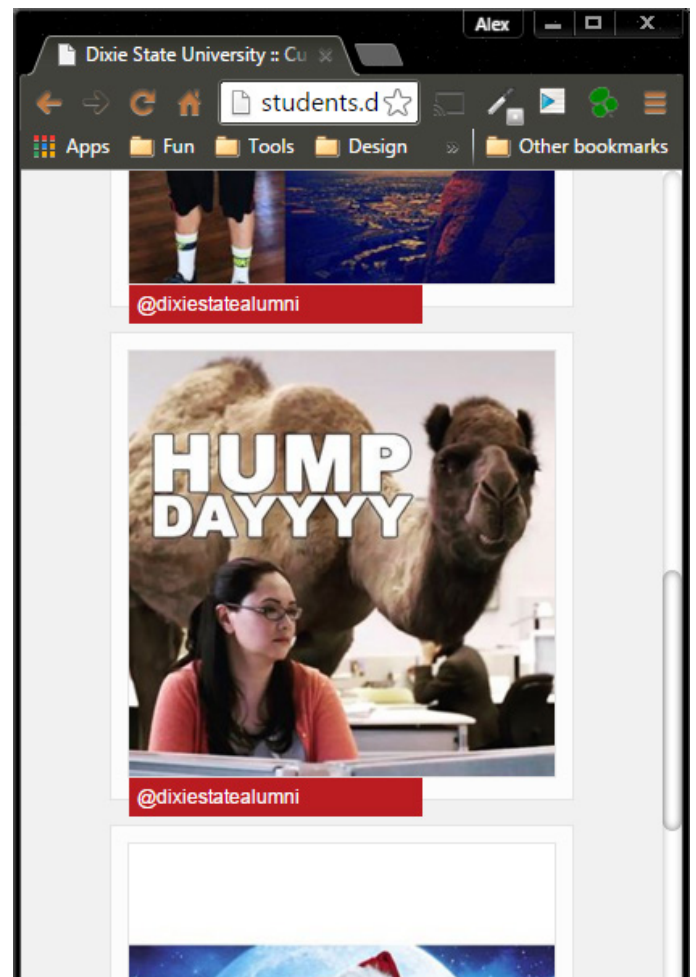
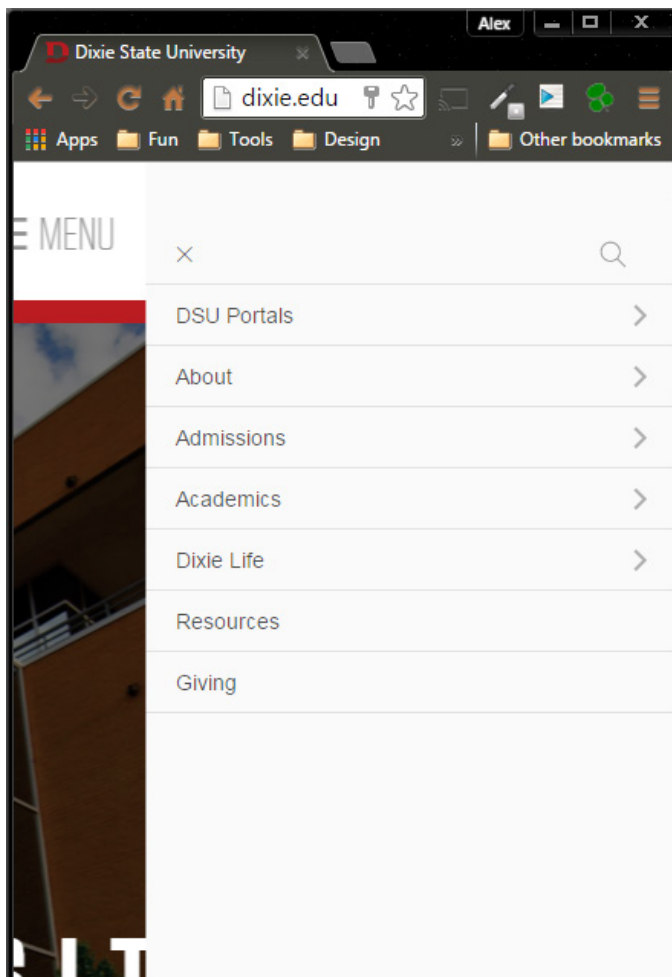
Scenario 2

Task 2 (what scholarships could you qualify for as a resident of Utah and a freshman) had the longest recorded time from one user, 4 minutes 22 seconds. This task also had the greatest amount of variation between users. I believe that despite the fact that we do a great job showing our pricing we could be doing a better job with our financial aid side of the website. More internal linking from appropriate pages would help users to find this information quicker.

Answering the List of Problems

The new roll-out of the website seeks to address each of the problems listed in this report. In this system however there will be a large learning curve and different problems will need to be fixed. Below is how the new site addresses each problem listed.

- Off-template websites with outdated branding and content
Using different WordPress templates, we will allow greater flexibility. This will hopefully entice those who left the dixie.edu site to come back once more as we can now support many new features such as local departmental navigation. We will also have a team of web interns that can be utilized to easily update content.
- Lack of true mobile responsiveness
The new site template was made to be incredibly flexible and mobile friendly. Below are images of how the mobile menu will shift the web page to the left and how images will size correctly for mobile devices.



- Lack of a true content management system
Using WordPress allows us many new features as well as future support and the ability to hire those who are already familiar with this type of development. Features include being able to have a history/backup of pages, seeing who the author of a page is, having an email sent out to authors when a web page has reached a certain age and needs updating, shared variables for things like tuition/pricing. These things will make development much easier and much quicker.
- Inability to efficiently roll out updates
WordPress is constantly being updated and worked on. We will also be able to roll out theme updates every year to add features, fix bugs, etc. IT will have backups of our databases and changes so if something does break we should be able to easily revert mistakes.
- Creating web forms is very time consuming and varies greatly from form to form.
One of the best plugins that WordPress has is called Formidable. This plugin allows even beginner developers to be able to build forms that can have complex logic, send emails, have admin sections to display data, and many other things. This plugin will save us immense amount of time and allow lesser experienced developers to help in the creation of simple forms while upholding a similar design.
- Departments do not know who to go to in order to get a web page updated/created
Rex Frisbey will now be in charge of a group of web interns with Matt Kearn acting as a mentor to students allowing Rex to manage while Matt instructs. This set-up will increase the productivity of our Webmaster immensely as our new CMS makes development easier and being able to delegate workloads allows Rex to concentrate on other projects. This will also be super beneficial for Dixie State University as students will now be able to have real world experience in the web industry. A win-win all around.
- Having one main webmaster does not allow enough time to make all necessary changes for all departments
Again, this will be fixed by our new set-up.

- Webfonts allow for greater branding and need to be utilized
Below is an example of our homepage using the official DSU font in the navigation and in the middle of the page.



[Prospective Students](#) [Current Students](#) [Faculty & Staff](#) [Alumni](#) [Visitors](#) [Search](#) [User Profile](#)

[About](#) [Admissions](#) [Academics](#) [Dixie Life](#) [Resources](#) [Giving](#)

DIXIE STATE UNIVERSITY

St. George, Utah

- Our competition has been amping up their websites to where we look like we are behind and less modern

Below is an example of the homepage using a sticky header to follow as the user explores our marketing points for going to Dixie State University.

[Academics](#)

[Cost](#)

[Location](#)

[Student Life](#)

[Athletics](#)

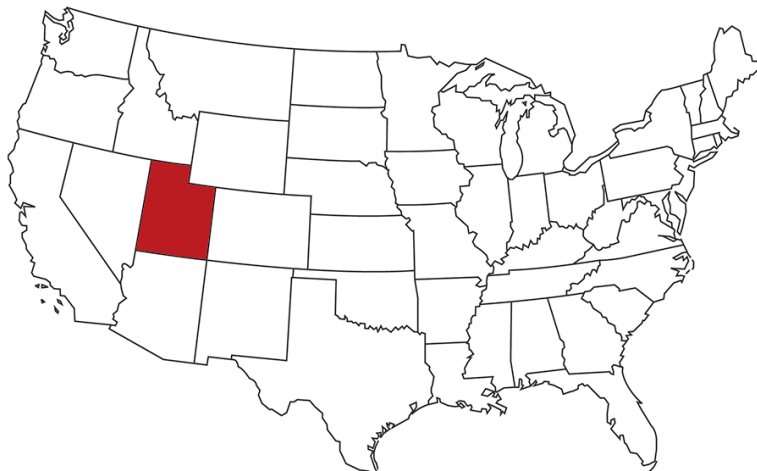
300 DAYS OF SUNSHINE

71°

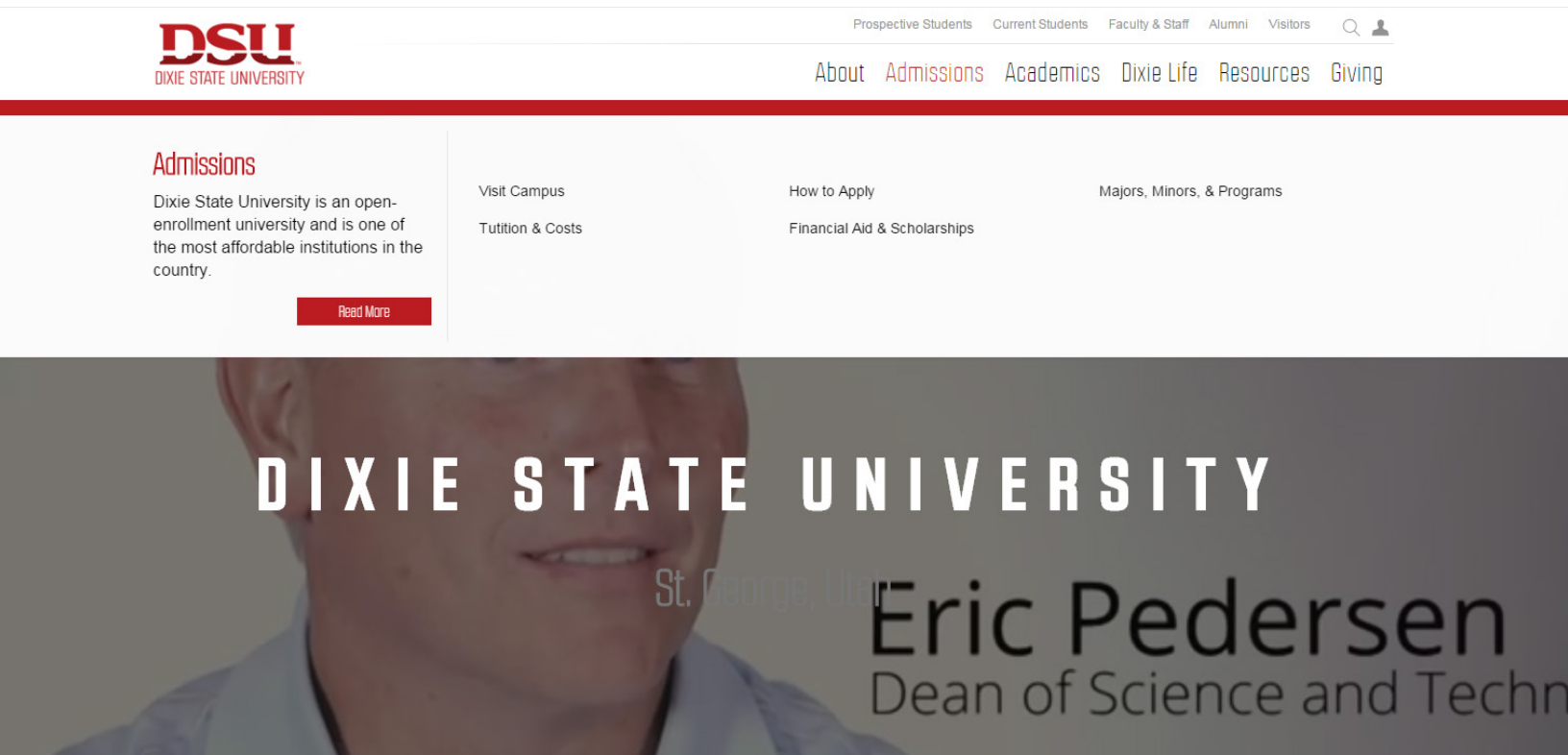
AVERAGE DAILY HIGH
TEMPERATURE

ONLY

- 45 minutes from Zion National Park
- 1.25 hours from Brian Head
- 1.5 hours from Las Vegas
- 2 hours from Lake Powell



- Repeated and outdated content through the site
Taking on a major restructuring of the information architecture, we are splitting out content into logical sections. There will be 5 portal pages that will link out to all the content, the use of subdomains such as students.dixie.edu will help to show the purpose of every page and breadcrumbs will help as a trail for users to find their way back while finding content.
- Lack of focus for who the audience is
As the strategic plan from the president is implemented our focus is becoming tighter and tighter. We will have the content segmented based upon our audience displaying only relevant information in each section. No longer will sliders include staff & faculty information on a student page or vice versa.
- Megamenu with too many links that are hard to find
We have simplified the menu in leaps and bounds by splitting out the content into logical sections of the site.



List of Potential Problems with the Overhaul

We are expecting many issues in the next few months, even perhaps years. The benefit we have however is in the ableness and readiness to support and update this system every year with fixes, features, and more.

Below is a list of concerns that we need to be aware of;

- **Server Speed**
We are very worried in the way that the server will be able to handle our traffic and new CMS. We have been assured by IT that the use of load balancers and cacheing will be able to make our site speedy enough. Efforts have been made on the front-end to concatenate scripts, debug bottlenecks in repaints/layouts, but much of the site's speed relies on IT. Currently we are experiencing the site acting slow, but IT has yet to implement the necessary methods to speed it up.
- **404 pages, old pages lost, important information lost**
We have put many redirects in place to avert this issue as much as possible. Since there are so many pages in our site we are bound to miss something. In order to alleviate this our 404 page contains a form that the user can send us with what URL they tried to visit. We will then be able to move pages that people submit to us.
- **Many forms need to be created**
There are many forms that need to be moved over that have complex logic to them. Although formidable will more than likely be able to handle that logic, it will be a good bit of work in order to move everything over and have it work like it used to.
- **The calendar system is still a mess**
Events and planning almost bought a calendar/scheduling system to use for the site, however the system had many flaws to it that made it more work to use. We are currently using google calendars to display our events, except in the case of registration with important academic deadlines. We must either create a new workflow for academic deadlines or integrate how it is being handled now.
- **Overload of change/update requests for the first few months**
Although we are headed on the right track we really need to hire another developer to help Rex manage projects and continue to update our themes/plugins. Currently we are supporting two sites by allowing the old one to be active for a time when the new one launches. This set-up is very taxing.

Conclusion

These are exciting times and very busy times. We are fixing many problems facing our online presence, but more than that we are setting up for a better future with better workflows and an easier system to manage. It is my hope that the benefit of this project will help to begin the foundation of a new web department, provide much better support for students/staff/faculty through our online presence, increase our recruitment efforts, and create an amazing internship system for students.

I have also discovered just how far a user-centered approach to our website can reveal. These tests prove that we have much more work ahead of us than we realize. It is one thing to guess at what needs to be fixed and an entirely different thing to watch a user go through the site and struggle with differing things you would never have thought of. This can not be the job of just one person (although someone should be focusing on it more), but should be the job of everyone who is involved with creating for the website.

With data backing our decisions let us test and experiment better than everyone else. University websites are infamously known for how unusable and terrible they are. Let us be such a difference to that stereotype and make a positive mark in our industry!

— Alex Kolody, Marketing & Multimedia Designer